



**JSS College for Women (Autonomous)**  
**Saraswathipuram, Mysore-9**  
**IQAC**  
**The Annual Quality Assurance Report (AQAR)**

**2017-18**



**Submitted by**  
**THE PRINCIPAL**  
**JSS COLLEGE FOR WOMEN (AUTONOMOUS)**  
SARASWATHIPURAM  
MYSURU – 570 009  
KARNATAKA

**To**  
**National Assessment & Accreditation Council**  
P.B.No: 1075, Nagarabhavi, Bengaluru 560 072

**The Annual Quality Assurance Report (AQAR) of the IQAC**  
**(For Autonomous Colleges)**

Institutions Accredited by NAAC need to submit an Annual self-reviewed progress report i.e. Annual Quality Assurance Report (AQAR) to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the IQAC at the beginning of the Academic year. *The AQAR period would be the Academic Year. (For example, July 1, 2017 to June 30, 2018)*

**Part – A**

**Data of the Institution**

*(data may be captured from IQA)*

1. Name of the Institution                      JSS College for Women (Autonomous), Mysuru -9

- Name of the Head of the institution :    Dr. K. V. Suresha
- Designation:    Principal
- Does the institution function from own campus: Yes
- Phone no./Alternate phone no.:            0821 – 2548383 / 2548239
- Mobile no. : 91417 99241
- Registered Email: jsscw.principal@gmail.com
- Alternate Email: deanjsscw@gmail.com
- Address            : 2<sup>nd</sup> main road, Saraswathipuram
- City/Town        : Mysuru
- State/UT           : Karnataka
- Pin Code           : 570 009

2. Institutional status:

- Autonomous Status ( *provide the date of Conformant of Autonomous Status*):  
**Yes      28.05.2005**

- Type of Institution: Co-education/Men/Women : **Women**
- Location : Rural/Semi-urban/Urban: **Urban**
- Financial Status: Grants-in aid/ UGC 2(f) and 12B/ Self financing- **Grants-in aid** (please specify)
- Name of the IQAC Co-ordinator/Director: Dr. H. B. Suresh
- Phone no. /Alternate phone no. : 0821 2548249
- Mobile: **9886463484**
- IQAC e-mail address: [jsscw.principal@gmail.com](mailto:jsscw.principal@gmail.com)
- Alternate Email address: [deanjsscw@gmail.com](mailto:deanjsscw@gmail.com)

**3. Website address: [www.jsscw.in](http://www.jsscw.in)**

Web-link of the AQAR: (Previous Academic Year): <http://www.jsscw.in/iqar.aspx>

**4. Whether Academic Calendar prepared during the year?**

Yes/No : **Yes**, if yes, whether it is uploaded in the Institutional website: **Yes**

Weblink: [jsscw.in/calander.pdf](http://www.jsscw.in/calander.pdf)

**5. Accreditation Details**

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 <sup>st</sup>	B +	-	2003	from: 21.03.2003 to: 20.03.2008
2 <sup>nd</sup>	A	3.10	2010	from:28.03.2010 to: 27.03.2015
3 <sup>rd</sup>	A+	3.51	2016	from:05.11.2016 to: 04.11.2021

**6. Date of Establishment of IQAC:** DD/MM/YYYY: 01/06/2004

**7. Internal Quality Assurance System**

<b>7.1 Quality initiatives by IQAC during the year for promoting quality culture</b>		
Item /Title of the quality initiative by IQAC	Date & duration	Number of participants
IQAC Meeting	07.09.2017	13
IQAC Meeting	16.02.2018	15
IQAC Meeting	28.05.2018	14
AQAR Submission	23.07.2017	Submitted online
External Academic Administrative Audit	11.04.2018	4 Members

Participation in NIRF	17.02.2018	Submitted online
University Review Committee Visit	05.12.2017	10 Members

8. Provide the list of Special Status conferred by Central/ State Government-  
UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/ Faculty	Scheme	Funding agency	Year of award with duration	Amount in Rs.
<b>College</b>	PMYUVA	MSDE, Newdelhi	2018      5 years	920000

9. Whether composition of IQAC as per latest NAAC guidelines: Yes/No: **Yes**

#### COMPOSITION OF THE IQAC - 2018

A.	<b>Chairperson – Head of the Institution</b>	<b>Dr. K. V. Suresha, Principal</b>
B.	<b>Members (Internal)</b>	
	Dr. G. R. Shivamurthy	Controller of Examinations
	Dr. K. S. Rajashekhar	HoD, PG Dept of Economics
	Dr. S. Narendra Prasad	HoD, Dept of History
	Dr. S. P. Umadevi	HoD, Dept of Kannada
	Dr. Rechanna	HoD, Dept of Commerce
	Prof. K. G. Shivakumara Swamy	HoD, PG Dept of Chemistry
	Dr. D. M. Lokeshwari	HoD, Dept of Chemistry
	Sri. C. Ramesh	HoD, Dept of Economics
	Sri. Shivashankarappa S	Office Superintendent
C.	<b>One member from the Management</b>	
	<b>Prof. Morabada Mallikarjuna</b>	Director, CED, JSSMVP, Mysuru
D.	<b>Few Senior Administrative Officers</b>	
	Dr. Gavisiddaiah	Archivist, Karnataka State Archives, Mysuru
	Mrs. Brindala Mallappa	CEO Ionidea (Pvt) Ltd., Bengaluru
	Dr. B. Mahadevappa	Prof. of Commerce, UoM, Mysuru
	Prof. Mallikarjuna Aradhya	Director, JSS RC, SJCE Campus, Mysuru
	Prof. K. S. Lokesh	Registrar, JSS S&T University, Mysuru
E.	<b>One nominee each from local society, students and alumni</b>	
	<b>Local Society</b>	
	Prof. T. S. Venugopal	Prof. of Statistics (Retd.), Mysuru
	<b>Students</b>	
	Kum. K. K. Akshatha	II MCom
	Kum. Kusumitha	II Economics
	<b>Alumni</b>	
	Dr. B. P. Indira	Associate Professor, Dept of History, GFGC, Kuvempunagar, Mysuru
F.	<b>One nominee each from industrialists/stake holders</b>	
	<b>Industrialist</b>	
	Sri. Umesha R.	Chartered Accountant, FCA, Mysuru
	<b>Stake holders</b>	
	Sri. T. N. Prabhakar	Joint Director, Collegiate Education (Retd.)
G.	<b>Coordinator / Director of the IQAC</b>	<b>Dr. H. B. Suresh, Dean (Academic)</b>

**10. No. of IQAC meetings held during the year: 03**

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website

Yes/No: Yes

(Please upload, minutes of meetings and action taken report): Uploaded

**11. Whether IQAC received funding from any of the funding agency to support its activities during the year? Yes No ✓**

If yes, mention the amount: NA Year: NA

**12. Significant contributions made by IQAC during the current year (maximum five bullets)**

- \* IQAC's proactive role ensured extension of Autonomy for 10 years without on-field –visit – UGC letter vide no: F.22-1/2017(AC) 30.05.2018
- \* The IQAC ensured that the college is declared **Empanelled Institute** under Pradhana Manthri Yuva Yojana. The only college under University of Mysore to be declared so.
- \* MoU with the Department of Studies in Journalism and Mass Media, University of Mysore, Mysuru to organize special lectures by distinguished scholars from abroad, who visit the department.
- \* Facilitated Twelve training programmes through the placement cell and ensured placement for 145 students.
- \* MoU with National Women's Science Congress to organize a series of lectures on relevant science themes during the next academic year and MoU with the National Academy of Sciences, India to organize a series of special lectures on topics of natural science.

**13. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year**

Plan of Action	Achievements/Outcomes
To motivate teachers with Ph.D qualification to get guideship from university	Five faculty members with Ph.D have been granted guideship and the said faculty are actively guiding research students. Presently 21 students are pursuing Ph.D
PG Programme in Botany and Microbiology	Concerned departments have done survey about demand for MSc Botany and MSc Microbiology.

New MOU with institution & Industries	<p>MoU with the Department of Studies in Journalism and Mass Media, University of Mysore, Mysuru to organize special lectures by distinguished scholars, who visit the department.</p> <p>MoU with National Women's Science Congress to organize a series of lectures on relevant science themes during the next academic year and MoU with the National Academy of Sciences, India to organize a series of special lectures on topics of natural science.</p>
Strengthening of Science Department Laboratories	<p>Added Clinical Research Binocular Microscope, Biological Safety Cabinet, Deep Freezer, Horizontal &amp; Vertical Gel Electrophoresis unit, Micro image Processing system, Pilot Fermenter</p> <p>Replenished Rotary evaporator, Muffle furnace, Fuming chamber, flame photometer, spectrophotometer, Heats and stirrer (Remi)</p>
To organize more Seminars & Workshops on relevant issues	<p>2 National seminars organized</p> <p>I. Departments of Sanskrit had organized one day national seminar - <b>Sanskrita Sahitya Chinthane</b> on 06.03.2018</p> <p>II. Department of History had organized two- day national seminar - <b>Pathragarada Dakhalegalu: Brihath – Mahath</b> on 27<sup>th</sup> &amp; 28<sup>th</sup> March 2018</p> <p>7 Workshops were organized</p> <p>1. <b>'GST'</b> for Officers of JSSMVP and Heads of JSS Institutions on 05.07.2017.</p> <p>2. <b>"Implementation of GST: Benefits &amp; Challenges"</b> on 10.08.2017 &amp; 11.08.2017.</p> <p>3. <b>'Soft Skills'</b> on 01.09.2017 for the benefit of final year students.</p> <p>4. <b>Awareness program on</b></p>

	<p><b>Entrepreneurship’ – on 12.12.2017.</b></p> <p>5. <b>Symposium on Central &amp; State Budget 2018-19</b> in association with Mahajana P.G. Centre On 21<sup>st</sup> February 2018</p> <p>6. <b>“Harnessing the Potentialities of Teachers for Stakeholders’ Delight”</b>. on 3<sup>rd</sup> March 2018</p> <p>7. <b>“Two-Day Extension Lecture Programme in Chemistry”</b> on 8<sup>th</sup> &amp; 9<sup>th</sup> March 2018</p>
Construction of New Laboratories	Analytical chemistry lab and Organic chemistry lab
Construction of New Hostel to accommodate more students	Construction completed with 15000 Sq.ft., with 24 rooms accommodating 80 students
Construction of <b>Pariksha Bhavan</b> for smooth, confidential and effective functioning of activities related to examinations.	Proposal is under consideration. Presently office of CoE is accommodated in a new spacious room.

**14. Whether the AQAR was placed before statutory body? Yes /No: Yes**

Name of the Statutory body :Academic Council (2) Date of meeting(s): 30.05.2018

Governing Body (3) Date of meeting(s): 01.09.2018

**15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?**

**Yes/No: No**

**16. Whether institutional data submitted to AISHE: Yes/No: Yes**

Year: 2018

Date of Submission: 03.03.2018

**17. Does the Institution have Management Information System?**

**Yes**

Since the institution believes in holistic dissemination of knowledge, the college has evolved an effective Management Information System (MIS). The annual admission procedure of students is computerised. Every detail of students like, ID number, caste, economic status is readily accessible at any point of time. The college also provides online application facility and students can apply for their desired courses by online itself.

The institution's library is partially digitized and completely automated. The library provides INFLIBNET and OPAC facilities through which members of teaching faculty and Research Scholars can access umpteen number of books.

All Government funded projects/ programmes come under PFMS, hence duly audited and placed before statutory bodies like GB & AC for approval. The examination section is also partially digitized. The section follows manual coding and mechanical decoding process. LOGISYS software is adopted in the examination cell for entry of marks and other exam related information. Since the college has switched over to CBCS system from the academic year 2018-19 WINDOWS based software is adopted. Teachers can enter marks as soon as valuation of Internals and semester-end examination is over.



## **Part-B**

<b>1.1 Curriculum Design and Development</b>				
1.1.1 Programmes for which syllabus revision was carried out during the Academic year				
Name of programme	Programme Code	Dates of revision		
UG	BA	30.05.2018		
	BCom			
	BBA			
	BSC			
	BCA			
PG	MA (Economics)			
	MCom			
	MSc (Chemistry)			
1.1.2 Programmes focussed on employability/ entrepreneurship/ skill development during the Academic year				
<b>Programme with Code</b>		<b>Date of Introduction</b>	<b>Course with Code</b>	<b>Date of Introduction</b>
Auditing		18.06.2018	BA II Semester Optional Kannada	18.06.2018
Human Rights		18.06.2018	Degree Programs III Semester Language English	18.06.2018
International Financial Reporting System (IFRS)		18.06.2018	Degree Programs II Semester Optional English Paper 2 Drama	18.06.2018
Financial Management		18.06.2018	Degree Programs IV Semester Language English	18.06.2018
Business Journalism & Corporate Communication		18.06.2018	MA (Economics) IV Semester Operation Research & GST & Personal Income Taxation Executive Communication	18.06.2018
<b>Details attached in Annexure: 1</b>				
<b>1.2 Academic Flexibility</b>				
1.2.1 New programmes/courses introduced during the Academic year				
Programme/Course		Date of introduction		
Nil		-		
1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.				
Name of Programmes adopting CBCS	<b>UG</b>	<b>PG</b>	Date of implementation of CBCS / Elective Course System	<b>UG</b>
BBA	2012	-	BA	18.06.2018
MA (Economics)	-	2011	BCom	
MCom	-	2011	BBA	
MSc (Chemistry)	-	2016	BSC	
			BCA	

1.3 Curriculum Enrichment		
1.3.1 Value-added courses imparting transferable and life skills offered during the year		
Value added courses	Date of introduction	Number of students enrolled
1. Auditing	18.06.2018	16
2. Financial Management	18.06.2018	53
3. International Financial Reporting Standards (IFRS)	18.06.2018	-
4. Tourism	18.06.2018	-
5. Human Rights	18.06.2018	2
6. Business Journalism & Corporate Communication	18.06.2018	3
1.3.2 Field Projects / Internships under taken during the year		
Project/Programme Title	No. of students enrolled for Field Projects / Internships	
<b>BCA</b>		
Quick recipe using Google cloud vision API(application)	1	
IBeacon broad casting and device manager	1	
Online food ordering system(application)	1	
Employee tracking system	1	
Home automation (application)	1	
An intelligent web enabled vaccination system	1	
Product chatbhot platform(java)	1	
Trajectory management	1	
Uber for everything	1	
Group on type grocery delivery(android)	1	
Dynamic human resource allocation with an organization	1	
suspect predication(asp)	1	
Crop prediction	1	
Women safety [android]	1	
Farming assistance web services/php)	1	
Centralized patient management system	1	
Geometrical range search on encrypted special data(network)	1	
Sensing driving condition to estimate vehicle speed in urban enhancement	1	
Online traffic management system	1	
How to make topic popular again? A temporal model for topic re-writing prediction in online social network	1	
Student progress report using graph	1	
Virtual network computing [Remotely desktop sharing] (asp)	1	
Examination management(android)	1	
Online income tax management system using web application	1	
Smart museum information using android	1	
Voice input mood based music player	1	
Zoo management	1	
Online job management system(php)	1	
Online DL management system	1	
Mysore events	1	
Security travel identity	1	
Sell, buy, barrow(android)	1	

Face changing	1
Tour package management system(web application)	1
Food wastage tracking system(web application)	1
Voting system	1
Augment social media	1
Automation of civil courts	1
Defence information service(php)	1
Dynamic algorithm for product classification based on its views	1
Identified based data outsourcing with comprehensive auditing in clouding	1
Automation for placement of student prediction	1
Online city corporation complaint portal (php)	1
Load balancing in content delivery network	1
Rana-neethi(java)	1
Smart construction monitoring application(android)	1
Cloud armour supporting reputation based on trust management for cloud services	1
Course recommendation system(asp)	1
Online bidding system(php)	1
Smart blood bank services using Google map	1
Smart E-commerce recommendation system using data mining technique(ers)	1
Health care policy(php)	1
Question paper processing and distribution(php)	1
Online fee payment(php)	1
My privacy my decision :control of sharing of photos in online social network	1
Place of kindness(asp.net)	1
Department management system(java)	1
Scholarship (java)	1
Online rent house(application)	1
Crime report	1
Secured data transmission b/w anonymous users(asp.net)	1

#### BA (Journalism) Internship

Student's Name	Duration	Place
P. K. Ponnammma	15 days	Star of Mysore, Evening English Daily
Punya T Balakrishna	20 days	Indian TV Chanel
Tejashree K S	30 days	Yashtel TV Chanel
Swathi U	20 days	Indian TV Chanel
Dechamma P S	20 days	Indian TV Chanel
Poornima	30 days	Prajanudi (Kannada daily)
Suman	30 days	Prajanudi (Kannada daily)
Sindhu Shree R	30 days	Yashtel TV Chanel
Harshitha M	20 days	Indian TV Chanel
Suma P	30 days	Yashtel TV Chanel
Divya Mary	15 days	Star of Mysore, Evening English Daily
Manasa B	15 days	Adithyavani, (Kannada daily)
Sunitha C K	15 days	Adithyavani, (Kannada daily)

<b>BSc (Computer Science)</b>				
Path inference in wireless sensor network.				3
Secure tracking in marketing android application.				2
'E' admission online for tuition.				2
Volunteer NGO				2
Automatic book finder in library using ibeacon.				2
Child location monitoring application.				2
College attendance management.				2
Online recruitment system.				2
Gift selection based on recommendation.				2
An efficient human facial expression recognition system.				1
Android dietician.				2
Bike sharing system.				2
Bio metric voting system				2
Information center for previous year question paper.				2
An advance M-learning system.				1
College news and android application				1
<b>BCom</b>				
"Human Resource Development Practices in Nestle India Ltd." Nanjangud.				5
"Customer Relationship Management in Paytm Co.", Bengaluru				5
"Effects of Demonetization on Banking Sectors at Case Study of Canara Bank"				4
"A Study on Online Shopping Cart Abandonment Amazon.in"				5
"Case Studies on GST-With Respect to Supply of Goods and Services"				4
"Marketing Strategy in MYMUL, Mysuru"				4
"Customer Relationship Management at Banks-A Case Study at Syndicate Bank"				5
"A Study on Supply Chain Management in Nestle India Ltd." Nanjangud				5
"Work Flow Management in CESC, Mysuru"				4
"Customer Relationship Management"-A Case study at MYPOL, Mysuru				2
<b>BBM</b>				
"Effective Leadership Leading to a Buoyant Firm-A Case Study of DMS Technologies Pvt. Ltd."				6
<b>1.4 Feedback System</b>				
1.4.1 Whether structured feedback received from all the stakeholders.				
1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes

1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

The college believes in continuous assessment and upgrading of academic standards. Accordingly, the college obtains, at regular intervals, feedback from stakeholders. Feedback is obtained at four levels.

- i. Parents – teachers meeting – held annually
- ii. From students on Graduates’ day – an annual event
- iii. From management at meetings chaired by management representative
- iv. From teachers at college meetings – held regularly

**Parents – teachers meeting**

Parents - teachers meeting is convened once in a year. The meeting will be attended by a senior officer representing the management. Through the class mentor, letters of meeting are sent to all the parents and generally the meeting is well attended. The meeting starts with the Principal making the power point presentation showcasing the facilities / opportunities available to students. Parents are given an opportunity to air their views on the system. The concerns expressed by parents are recorded and timely explanations would be provided by the Principal or the management representative. Sincere and honest efforts would be made to address the grievances of the students and parents. Such frequent meetings have proved to be very useful in creating a conducive academic atmosphere in the college.

**From students on Graduates’ day**

Students feedback would be obtained on the Graduates’ Day, which is generally held in the month of November. A well designed feedback form is prepared by the college for the purpose. The feedback form elicit responses from students on a range of issues which include, the usefulness of the course, competency of the teachers and facilities made available to students. The feedback obtained is assessed under SPSS system, which helps the college to plug its weaknesses.

**From management at meetings chaired by management representative**

The management makes serious efforts in improving the quality of education, imparted at the college. Meeting of college Principal and senior teachers would be held regularly at the head quarters and generally the meetings would be chaired by the Executive Secretary. The management gives a patient hearing to the observations of the Principal and senior teachers and come out with valid solutions.

**From teachers at college meetings**

General staff meetings would be called at regular intervals or as and when the situation demands to take care of issues arising. The meeting would be attended by the members of both teaching and non-teaching faculty. In these meetings Principal takes stock of the academic progress of the college, which includes completion of syllabus and submission of records by the teachers. Both teachers and non-teaching staff are given freedom to speak about their grievances, which would be recorded and addressed later in consultation with the management. A range of issues like students discipline and other general grievances would be discussed at length. Such frequent staff meetings not only eliminate misconceptions among the members of staff but also contribute to the academic improvement of the college.

CRITERION II -TEACHING-LEARNING AND EVALUATION					
2.1 Student Enrolment and Profile					
2.1. 1 Demand Ratio during the year					
Name of the programme		Number of seats available	Number of applications received		Students Enrolled
UG		1269	1467		681
PG		150	167		93
2.2 Catering to Student Diversity					
2.2.1. Student - Full time teacher ratio (current year data)					
Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2017-18	1797	167	111	06	03
2.3 Teaching - Learning Process					
2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)					
Number of teachers on roll	Number of teachers using ICT ( <i>LMS, e-Resources</i> )	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
121	121	Laptop E-Podium Smartclass	12	5	Programming software used
2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)					
Yes					
Mentor system is implemented to monitor the overall progress of the students. Under this system, a Mentor is appointed for each class. The mentors give due attention to the following:					
➤ Monitoring the performance of the student in academic matters.					
➤ Remedial classes for slow learners.					
➤ Tracking the students attendance					
➤ Bringing student's attendance and academic record to the notice of the parents.					
➤ Guide students to choose electives					
➤ Provide personal counselling					
➤ Motivating the students to participate in social activities.					
➤ Counsellors are appointed and they provide counselling in the college					
➤ Counsellors are utilized to counsel students in the hostel					
➤ Psycho – Social counselling is also arranged for students who are in need of it					
Number of students enrolled in the institution			Number of fulltime teachers		Mentor: Mentee Ratio
1964			121		1:16

<b>2.4 Teacher Profile and Quality</b>				
<b>2.4.1 Number of full time teachers appointed during the year</b>				
No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
121	115	06	06	24
<b>2.4.2 Honours and recognitions received by teachers</b> (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )				
Year of award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies	
Nil	-	-	-	
<b>2.5 Evaluation Process and Reforms</b>				
<b>2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year</b>				
Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
UG		Odd Semester	14.10.2017	21.12.2017
		Even Semester	21.04.2018	11.06.2018
PG		Odd Semester	11.01.2018	09.02.2018
		Even Semester	26.05.2018	14.07.2018
<b>2.5.2 Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year</b> <b>*Do not include re-evaluation/ re-totalling</b>				
Number of complaints or grievances about evaluation		Total number of students appeared in the examination		Percentage
Nil		689		Nil
<b>2.6 Student Performance and Learning Outcomes</b>				
2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the web link)				
<div><div><b>Program Outcome</b></div><div><b>Course: BA</b></div><div><b>HEG/HEP/HEK/HES/KEG/HEE/PJK/PJE/PJS</b></div></div>				
At the end of the programme the students will be:				
<div><div><div></div><div></div><div></div><div></div></div><div><div>Informed and enlightened citizens by acquiring knowledge of society and polity.</div><div>Develops literary sensibilities by studying significant writers of English &amp; Indigenous writers</div><div>Informed citizens by acquiring Reporting and editing skills</div><div>Able to scale new academic heights by pursuing post graduate and other relevant/ related courses</div></div></div>				

- Successful Indian Administrative Services/ Karnataka Administrative Services officers.
- Eligible for recruitment in middle / higher order jobs

### **Course : BCom / BBA**

At the end of the programme the students will be:

- Able to scale new academic heights by pursuing post graduate and other relevant/ related courses like CA, ICWA, CS
- Successful tax consultants and Auditors
- Successful entrepreneurs
- Informed and enlightened citizens by acquiring knowledge of Finance and Management
- Tailor – made for Bank / Insurance / Transportation/ Hotel/ Tourism/ Marketing jobs
- Eligible for recruitment in middle / higher order jobs
- Successful Indian Administrative Services/ Karnataka Administrative Services officers.

### **Course : BSc**

At the end of the programme the students will be:

- Able to scale new academic heights by pursuing post graduate and other relevant/ related courses
- Informed and enlightened citizens by acquiring knowledge of Life & Physical sciences
- Successful entrepreneurs in the areas of Lab technicians/ Soil testing/ Mushroom culture/ Horticulture
- Eligible for recruitment in middle / higher order jobs
- Entrepreneur in tissue culture
- Entrepreneur in clinical laboratory / Pathology
- Successful Indian Administrative Services/ Karnataka Administrative Services officers.

### **Course : BCA**

At the end of the programme the students will be:

- Able to scale new academic heights by pursuing post graduate and other relevant/ related courses
- Tailor – made for jobs in software companies
- Readily employable in electronic industries
- Able to run independent computer services center
- Readily employable in Animation industry
- Successful Indian Administrative Services/ Karnataka Administrative Services officers.

### **Course: PG Chemistry Programme Outcomes (POs)**

At the end of the programme the students will be able to:

- Acquire knowledge, abilities and insight in well-defined area of research within Chemistry.
- Adopt the skills and knowledge required to the professional life and to qualify for training as scientific researcher.



- Get developed with scientific communication skills for differently specialized and non-specialized audiences.
- Develop knowledge of scientific theories and methods, gain experience in working independently with scientific questions and clearly express opinion on academic issues.
- Acquire the skills of planning and conducting advanced experiments by applying suitable simple and sophisticated analytical techniques.
- Examine specific phenomena theoretically and/or experimentally, contribute to the generation of new scientific insights or to the innovation of new applications of research in Chemistry.

### **Programme Specific Outcome (PSOs)**

After completion of this programme the candidate will be

- Able to take up Global level research opportunities to pursue PhD programme and the student will be more resourceful and will have targeted approach to qualify CSIR – NET and other competitive examinations.
- With the knowledge of chemistry, one can reach the positions by getting employment in chemical, pharmaceutical, food and material industries.
- An M.Sc. Chemistry student after passing out of this programme will reach a level to think about the scientific situations existing around him/her.
- After passing this programme the student will be having the capability to think and teach aspects of chemistry to the different levels of students in a futuristic manner.

### **Programme : MCom**

At the end of the programme the students will be:

- Able to scale new academic heights by pursuing research work
- Employable directly as Assistant Professors of Commerce.
- Successful tax consultants and Auditors
- Successful entrepreneurs
- Informed and enlightened citizens by acquiring knowledge of Finance and Management
- Tailor – made for Bank / Insurance / Transportation/ Hotel/ Tourism/ Marketing jobs
- Eligible for recruitment in higher order jobs
- Successful Indian Administrative Services/ Karnataka Administrative Services officers.

### **Programme : MA (Economics)**

At the end of the programme the students will be:

- Able to scale new academic heights by pursuing research work
- Employable directly as Assistant Professors of Economics
- Successful entrepreneurs
- Informed and enlightened citizens by acquiring knowledge of Finance and Banking
- Successful Indian Administrative Services/ Karnataka Administrative Services officers.
- Eligible for recruitment in higher order jobs

## Course outcome Semester wise

### Course : BA

#### Language: English (BA, BSc, BCom, BBA)

##### I Semester

- Familiarizes key English poets from Elizabethan era to important Romantic poets
- Acquaints students with key language components like Articles, proposition, subject – verb agreement

##### II Semester

- Introduces important English Essayist from Bacon to Charles Lamb
- Studies key short story writers of English literature like O Henry, R K Narayan and Anton Chekhov
- Key grammar components like Question tags, Antonyms, Synonyms and Direct and Reported speech.

##### III Semester

- Appreciates major Indian writer in English like R K Narayan by studying his novel ‘The Guide’
- Develops independent thinking and construction of sentences by Expansion of a given idea and Comprehension.
- Studies correction of sentences by understanding common errors in English usage.

##### IV Semester (BA, BSc)

- Appreciates Shakespeare by studying Macbeth
- Studies words which are commonly misused
- Understands the importance of Tenses and linkers in a sentence.

##### IV Semester (BCom, BBA)

- Introduces the meaning of Communication and types of Communication
- Drafting letters of Orders, Claims, Complaints and Bank correspondence
- Enables students to understand the importance of business communication

##### Optional English I Semester

- Acquaints the students, poets in chronology, from pre Elizabethan poets to Metaphysical poets like Sir Philip Sidney, Shakespeare, John Donne and George Herbert
- Familiarizes important English short story and Essay writers like Bacon, Russell and Katherine Mansfield.
- Key poetic forms like Ode, Epic and Ballad are introduced.

##### II Semester

- Studies the concept of tragedy and comedy
- Familiarizes with tragic playwrights like Christopher Marlowe and William Shakespeare
- Hones up skill of drama enactment & dialogue delivery

##### III Semester

- Introduces the meaning and concept of Romanticism, Victorian age and important poets like Wordsworth, Coleridge, P B Shelley, John Keats, Alfred Tennyson and Robert Brning
- Victorian novelists like Thomas Hardy and Jane Austen

##### IV Semester

- Introduces important modern Kannada fiction available in English translation
- Significant Kannada novelists like, U R Anantha Murthy, Tejaswi and Devanura Mahadeva are introduced.
- Students are made to understand the importance and nuances of translation

### **V Semester (Paper 5)**

- Acquaints students with W H Hudson's concept of Poetry, Drama and Criticism.
- Introduces select literary terms like Stream of Consciousness, Negative Capability and Objective Correlative
- Evaluation and appreciation of poetry is taught by making students understand and evaluate an unseen poetry.

### **(Paper 6)**

- Familiarizes Commonwealth literature by introducing significant Commonwealth writers like A D Hope, Derek Walcott, Judith Wright and Wole Soyinka
- Important novelists like Chinua Achebe and Margaret Atwood are introduced

### **(Paper 7)**

- Acquaints students with key modern dramatists like Girish Karnad, Mahesh Dattani and Arthur Miller
- Enables students the use of myth in drama and comprehend the differences between modern and classical tragedy

### **VI Semester**

### **(Paper 8)**

- Helps students in understanding and appreciating critical theories like Colonialism, post colonialism, Marxism, Feminism and Reader Response Theory
- Important critics like Samuel Johnson, E M Forster and Virginia Woolf are introduced

### **(Paper 9)**

- Enables students to understand the importance of Indian Writings in English
- Students are made to read Significant Indo Anglican poets.
- Modern English fiction writers like Arun Joshi and Shashi Deshpande are introduced.

### **(Paper 10)**

- Introduces the origin and growth of English language.
- Familiarizes the influence of other languages like Latin, Greek and French on English language
- Discusses the importance of English as world language

## **Language: Kannada (BA, BSc)**

### **I Semester**

- Appreciates modern poetry in Kannada with key poets like Kuvempu, B. M. Sri, Bendre and K S Nissar Ahmed
- Unit II set of poems acquaints students with modern poets like G S S, H S Shivaprakash, Vaidehi and Jayanth kaykini
- Unit III introduces significant essays by important essayist like M Shivaram, B G L Swamy and Ti Nam Sri
- Unit IV helps in tracing the growth of administrative Kannada since the time of kings to the present day
- Facilitates students to write letters related to applying for leave, salary, promotion etc.

### **II Semester**

- Unit I – appreciates Kuvempu's play Beralge Koral
- Unit II- acquaints Narrative poems by significant poets of modern Kannada
- Unit III – introduces words borrowed from other languages
- Unit IV – introduces Idioms and phrases
- Unit V – educates the writing of an essay

### **III Semester**

- Unit I – appreciates poets like Pampa and Janna of ancient Kannada literature
- Unit-II introduces writers of middle ages like Raghavanka and Kanakadasa
- Unit-III familiarises modern woman novelist like Anupama Nirnajan
- Unit-IV appreciates the biography of Mahatma Pule

### **IV Semester**

- Unit I – important Vachanas by significant Vachanakaras like Basavanna, Akkamahadevi and others
- Unit II – understands the nature and scope of Ragale by reading Madara Chennaiahs' Ragale
- Unit III - the form and content of a good short story is introduced by reading eminent short story writers of the language.
- Unit IV – the meaning and nature of travelogue is introduced by reading K P Tejaswis' *'Alemari Andaman'*

## **Optional Kannada**

### **I Semester**

- A brief survey of Kannada literary history
- Introduces eminent poets and their works, who belongs to different stages of Kannada literature
- Helps in understanding important poets along with their literary contributions

### **II Semester**

- Helps in analysing modern Kannada play
- Introduces the importance of meters in modern Kannada drama
- Prefers to bring out the acting capability of students.

### **III Semester**

- Familiarizes ancient epic book on grammar Shabdamanidarpanam by Keshiraja
- Importance of study of grammar along with understanding literature is made clear to students

### **IV Semester**

- Introduces ancient Kannada poet Pampa along with his magnum opus 'Pampa Bharata'
- Traces the origin and growth of Kannada language along with its different stages

### **V Semester**

- Acquaints the students with ancient Indian Poetics
- The first major Kannada prose 'Vaddaradane' by Shivakotyacharya is introduced
- Helps in understanding and appreciating ancient poetics

### **VI Semester**

- Introduces the study of *Desi* literature
- Helps in understanding the Vachana literature of the twelfth century
- Appreciates the key concepts of criticism

## **Language: Hindi (BA, BSc)**

### **I Semester**

- Language Skill Development
- Correct Grammar
- Sentence Formation
- Punctuation
- Vocabulary

## **II SEMESTER**

- Language Skill Development
- Writing skill
- Punctuation
- Vocabulary
- Sentence Formation

## **III Semester**

- Language Skill Development
- Communication Skills
- Able to know about Nataka sahithy
- Sentence Formation
- Able to write different kinds of letters.

## **IV Semester**

- Language Skill Development
- Translation skill
- Poetic Language formation
- Padya sahithya
- Ability to work in Banks & Companies.

## **Hindi (B.Com/ BBA)**

### **I Semester**

- Language Skill Development
- Vocabulary
- Writing Skills
- Ability to work as a Teacher in Schools & Colleges

### **II Semester**

- Language Skill Development
- Communication Skills
- Correct Grammar
- Sentence Formation
- Ability to work in Banks & Companies.

### **III Semester**

- Language Skill Development
- Translation Skills
- Recognition of alternative poetic words
- Selection of Words
- Poetic language formation

### **IV Semester**

- Language Skill Development
- Writing Skills
- Communication Skills
- Sentence Formation
- Punctuation

## **Hindi (BCA)**

### **I Semester**

- Language Skill Development
- Kahani sahithy
- Correct Grammar
- Sentence Formation
- Punctuation

### **II Semester**

- Language Skill Development
- Able to write Vigyapan Lekan
- Able to write different kinds of letters
- Able to know about Janasanchar Madhyam
- Ability to work in Banks & Companies.

### **III Semester**

- Language Skill Development
- Translation Skills
- Able to know about Padya Sahithya
- Poetic words formation.
- Ability to work in Banks & Companies.

### **IV Semester**

- Language Skill Development
- Communication Skills
- Able to write bank and insurance related letters.
- Know about Nataka Sahithya
- Writing Skills

## **Language: Sanskrit**

### **I Semester BCom, BBA**

- Understands the concept, nature and scope of Prose.

### **I Semester BA, BSc**

- Understands the concept, nature and scope of Prose.

### **I Semester BCA**

- Understands the concept, nature and scope of Prose.

### **II Semester BCom, BBA**

- Understands the concept, nature and scope of Poetry.

### **II Semester BA, BSc**

- Understands the concept, nature and scope of Poetry.

### **II Semester BCA**

- Understands the concept, nature and scope of Poetry.

### **III Semester BCom, BBA**

- Understands the concept of Drama.

### **III Semester BA, BSc**

- Understands the concept of Drama.

### **III Semester BCA**

- Understands the concept of Drama.

### **IV Semester BCom, BBA**

- Understands the concept of Commercial Sanskrit.

### **IV Semester BA, BSc**

- Understands the concept of Champu.

### **IV Semester BCA**

- Understands the concept of Champu.

### **SEC – 1 III Semester - BA**

- Understands the concept of Communication Skills.

## **Subject: History**

### **I Semester**

#### **History of India (Upto 1206 CE)**

- Understands the organic link between the geographical factors in shaping history from time immemorial.
- Have a fair knowledge about the sources.
- Appreciates our ancient civilization and culture.
- Understands the historical circumstances for the rise of new religions and their influence.
- Understands the development of kingdoms and contributions of some of the ancient dynasties.

### **II Semester**

#### **Socio-Political History Of India (From 1206 To 1716 CE)**

- Understands the influence of Islam on India and thereby its effects on Indian Society.
- Appreciates the transitional phase and synchronization of different cultural ethos and the Society.
- Appreciates the style of art, architecture and paintings.
- Understand the historical reasons for the opening of India to European Mercantile Companies.
- Studies the influences of regional languages.

### **III Semester**

#### **Political History Of Karnataka (From 3 BCE To 1565 AD)**

- Understands the continuity in political developments and political strategies.
- Studies the importance of regional kingdoms.

- Understands the rise of new dynasties in the context of era of political supremacy.
- Studies the foundation of dynasties and their struggle to establish political hegemony.
- Appreciates the confluence of diverse cultural elements.

#### **IV Semester**

##### **Socio-Cultural History Of Karnataka (From 3 BCE To 1565 AD)**

- Studies the evolution of Kannada language and script and later its transformation.
- Understands the influence of contemporary conditions on society.
- Make a note of influence of religion and society on socio-cultural life of the time.
- Studies literature and its development during different ruling dynasties and their contributions.
- Understands the concepts of Bhakti and protest as transitional changes.

#### **V Semester**

##### **Indian National Movement (1885 – 1947)**

##### **Compulsory Paper**

- Judge the historical writings and identifies their importance to understand struggle for freedom.
- Understands the concepts Nation, Nationality and Nationalism.
- Studies the growth of nationalism, and its regional varieties.
- Understand different phases of nationalism as a fight against colonialism.
- Studies the growth of communalism and its impact on Independence Movement and Partition.

#### **V Semester**

##### **History Of Karnataka (1565 - 1956)**

##### **Elective Paper 1**

- Study the political transitions and later in the context of imperialism.
- Understands the concepts of imperialism and colonialism, and later their influence.
- Study the varieties of anti-British uprisings in different regions.
- Understand the development of Princely Mysore under indirect colonial situation.
- Make a study of political and linguistic mobilizations and their historical necessities.

#### **V Semester**

##### **History Of Modern India (1757 - 1885)**

##### **Elective Paper 2**

- Studies circumstances leading to British political supremacy in India in European perspective.
- Understands the gradual political hegemony enjoyed by the British.
- Studies the expansion of imperialism and colonialism in different geographical regions in India.
- Make a study of influence of British rule on India.
- Understands the historical context, regions, nature and consequences of Revolt of 1857 and the transfer of administration of India.



**VI Semester**  
**Europe And The World (1789 – 1945)**

**Compulsory Paper**

- Studies the importance of 18th and 19th Centuries in determining the contemporary Europe.
  - Make a note of transition from merchant capitalism to industrial capitalism.
  - Studies the impact of imperialism and colonialism on non-European societies.
  - Understand the era of conflicts.
- Studies the causes and effects of world wars.

**VI Semester**  
**Contemporary World (1945 - 2000)**

**Elective paper-1**

- Critical examination of Post-World War II Politics in the context of cold war and its impact.
- Understand the contemporary international politics in the light of emergence of Blocs.
- Studies different areas of conflicts and their varieties.
- Understand the world politics after 1989.
- Study the influence of liberalization, privatization and globalization on the contemporary world.

**VI Semester**  
**Contemporary Karnataka (1956 - 2006)**

**Elective paper-2**

- Critical evaluation of initial problems which emerged in Karnataka after Unification.
- Understand the disputes after unification in Karnataka.
- Studies major movements in contemporary Karnataka.
- Understand the contemporary politics.
- Studies the influences of international perspective and struggle for Kannada identity.

**V Semester**  
**Indian National Movement**

**General Elective-1**

- Make a study of impact of colonialism and its influence on the growth of nationalism.
- Understands different phases of nationalism.
- Study the era of Gandhi with a special reference to Gandhian techniques.
- Understand nationalists.
- Make a note of impact of growth of communalism and its consequences on Partition and independence.

**VI Semester**  
**Heritage Tourism In Karnataka General Elective-2**

- Understand the concept of Heritage.
- Make a note on heritage sites in India.

- Study briefly tangible, intangible and natural heritage sites.
- Make a study of “Mysuru” as an important heritage city.
- Understands heritage tourism and world heritage centers in Karnataka.

## **Subject: Political Science**

### **I Semester**

#### **Introduction To Political Theory**

- Students can understand the Rights and Duties by study of Politics and Political theory
- It also ensure to promote and reinforce democratic ideology in Young minds
- It facilitate to create awareness on Political obligation.
- Students can easily take part in Political debate directly or indirectly they can take part in the Decision making process in the Country

### **II Semester**

#### **Indian Government And Politics**

- To throw light on administration and system of Government in Various Countries.
- To explore the role of administrative machinery
- To Highlight the importance of Constitutional Growth
- To facilitate the Civil service aspects
- To Concentrate on Parliamentary debates and of country and ensure peaceful co-existence

### **III Semester**

#### **Comparative Governments And Politics**

- To throw lights on administration and system of Government in various Countries.
- Students can understand the performance of various Government at the global Level with analytical ability.
- Student can understand the values of individual Vote and their participation in Democracy
- It is indeed helps the Students to concentrate on relevant and reliable issues especially on Aadhar, Right to Property, and Right to Education etc.

### **IV Semester**

#### **Introduction To International Relation**

- Student can Know the major analytical and theoretical framework regarding international relations
- Understand behavior of the Countries in international relations
- Recognize issues of Social Justice in global context.
- Students can develop Regional Competency and Cultural Competency.

### **V Semester**

#### **Themes In Comparative Political Theory (Elective Paper-1)**

- Understand the contributions of different thinkers to the Political theory
- Students can comparatively analyze Indian and Western political Philosophy
- Students can evaluate the contributions of different thinkers.
- To throw light on relevance of Political Theory and thought.

#### **Democracy and Governance(Elective Paper-2)**

- Learners can Understanding the Values of Democracy
- Students are able to explain the institutional aspects of Democracy
- Understanding How democratic institutions function within Constitutional framework.
- Students are able to Compare and Evaluate the Democratic government with other forms.
- Students will understand recent trends in Indian Democracy

### **VI Semester**

#### **Administration of Public Policy Concepts and Theories (Elective Paper 1)**

- Knowledge of Public Policy facilitate the learners to understand the role and Importance of Public Policy in State welfare.
- It is imperative to focus on the importance and Relevance of Administrative theories
- It creates awareness on various programmes and projects launched by the Government.
- Learners can Understanding the process of Policy Making

#### **Understanding Globalization (Elective paper 2)**

- Students can Understand the Phenomenon of Globalization
- Students can Understand about Sources and Forms of Globalization
- Student can Analyse the role of Global Actors in World Politics
- Recognize the Problems of Global Actors and its Solutions

#### **Human Rights Gender and Environment (Generic Elective paper 1)**

- Students can Understand the Importance of Human Rights
- Students can Understand about Role of UN in protection of Human Rights
- Student can Analyse the different issues and Problems on Human Rights
- Recognize the Problems of Global Actors and its Solutions on Environmental issues

#### **(Reading Ghandi) Generic Elective paper 2**

- Students can Understand the Gandhian views on Hind Swaraj
- Student can Analyse the Relevance of peace and Nonviolence in Indian Democracy
- Recognize the Contribution of Mahatma Gandhi on Social Justice

### **Subject: Economics**

#### **I – Semester**

#### **Core Economics I: Principles of Microeconomics-I**

- To expose the student to the basic principles in Microeconomic theory and their applications.
- It helps the students to gain the knowledge of consumer behaviour
- Students will get the knowledge of elasticity of demand and supply, production analysis and different market structure.

#### **II – Semester**

#### **Core Economics II: Principles of Micro economics-II**

- It gives students a thorough understanding of the principles of economics that apply to the decisions of individuals-both consumers and producers- with the large economic system.
- Study both product and resource markets and how they operate.
- It helps in gaining the knowledge of income distribution and how the factors of production are prized.
- It helps to concentrate on theories of international trade, tariffs and quotas

### **III – Semester**

#### **Core Economics III: Principles of Macroeconomics-I**

- It helps the students to learn the basic concepts in Macroeconomics with the aggregate economy.
- A student will be able to: make decisions using marginal analysis and opportunity costs.
- It helps the students to know how the price and output are determined by changes in demand and supply in market.
- It helps in determining the GDP.

### **IV – Semester**

#### **Core Economics IV: Principles of Macroeconomics-II**

- Students learn modern macro economics.
- Knowledge of IS-LM model.
- It helps in analyses of various theories of determination of National Income in greater detail.
- It helps students to concept of Inflation, its relationship with unemployment and some basic concepts in an open economy.

### **V Semester**

#### **Discipline Specific Elective (DSE) 1: Economics of Development**

- It helps students in understanding major trends in aggregate economic indicators of economic development.
- It helps in learning demographic trends and institutional factors.
- They learn the theories of economic development and growth.
- They gain the knowledge of occupational structure in organized and unorganized sector.

### **V Semester**

#### **Discipline Specific Elective(DSE) 2: Money and Banking**

- It exposes students to the theory and functioning of the monetary and financial sectors of the economy.
- They learn on structure and role of financial markets and institutions.
- They will gain the knowledge of interest rates, monetary management and instruments of monetary control.
- Students get information on major financial and banking sector reforms with special reference to India.

### **V Semester**

#### **Discipline Specific Elective(DSE) 3: Environmental Economics**

- It helps students to learn the concepts, methods and policy options in managing the environment using tools of economic analysis.
- It gives knowledge on analytical mind and familiarity with basic concepts of economics.
- It helps students to know about environmental problems caused by economic activities.
- It helps in gaining knowledge of different approaches to adjusting behaviour through economic institution such as markets and incentives as well as through regulation, etc.

### **VI Semester**

#### **Discipline Specific Elective (DSE) 4 : Economic Development Policy In India**

- The learner/students will gain knowledge of building on the more aggregative analysis of

trends in the Indian Economy offered in Economic Development and Policy-I,

- It helps the learner/students to understand the sector-specific trends in key indicators and their implications in the post-Independence period.

### **VI Semester**

#### **Discipline Specific Elective (DSE) 5:Economic History of India 1857-1947**

- It helps in understanding the key aspects of Indian economic development during second half of British colonial rule.
- The paper helps the investigator the place of Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule.
- It helps to know economy and state in the imperial context.

### **VI Semester**

#### **Discipline Specific Elective (DSE) 6:Public Finance**

- It helps the students to know the non-technical overview of government finances with special reference to India.
- It helps to know the knowledge of efficiency and equity aspects of Taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralization in India.
- It helps the students in aiming towards careers in the government sector, policy analysis, business and journalism.

### **Generic Elective-1**

#### **Introduction to Economics**

- It helps the non economic students to learn the basic concept of micro and macro economics.
- Students gain knowledge on concepts of national income and GDP.
- The student learns measurement of NI, Methods of measuring NI, Importance and Difficulties.

### **Generic Elective-2**

#### **Money and Public Finance**

- The students are exposed to money and capital market.
- The paper helps to understand the concept of Public Finance.

### **Subject: Journalism and Mass Communication**

#### **I Semester**

#### **INTRODUCTION TO COMMUNICATION**

- Understand the concept, nature and scope of communication and to learn to effectively use communication in Journalism.

#### **II Semester**

#### **DSC-1B Core: APPLIED JOURNALISM**

- Understand the concept, nature and scope of Journalism.
- Orient the students about the history of Journalism in India.
- The paper throws light on the available job opportunities in the field of Journalism.

### **III Semester**

#### **DSC-1C Core : REPORTING**

- Understand the concept of News, Reporting and Techniques, Media Conference, Press Release and different types of Reporting.

### **IV Semester**

#### **DSC-1D Core : EDITING**

- Teaches the fundamentals of Editing.
- Understand the concept of Editing and Techniques, Rewriting, editorial writing and translation.

### **V Semester**

#### **DSE-1A Core : ONLINE MEDIA**

- Teaches basics and fundamental of Computers, To Learn and understand the concept of Application in Media, Designing and Pagination.

**Or**

#### **DSE-2A Freelancing & Feature writing**

- Understand the concept of Feature, Techniques of Feature Writing, types of Feature, Freelancing and Feature Syndicate.

**Or**

#### **DSE-3A Media Law and Ethics**

- Understand the concept of Freedom of Press, Code and Ethics of Journalists, RtoI, Defamation and learning Articles and Civil and Criminal Procedure Codes.

#### **GE- 1 Media and Society**

- Understand the concept of Freedom of Press, Learning Articles and Civil and Criminal Procedure Codes. Role of Media in Democracy. News Coverage/Reporting etc.

### **VI Semester**

#### **DSE-1B Advertising and Public Relations**

- Teach basics and fundamentals of Advertising, Advertising Agencies and Learn understanding the concept of PRO. Designing of Advertisements.

**Or**

#### **DSE-2B Introduction to Electronic Media**

- Understand the concept of Electronic Media. Origin of Radio, TV and Indian Cinema.

**OR**

#### **DSE-3B Media Management**

- Understand the concept of Press and Media. Organization Setup/Infrastructure of different kinds of Media. Role and Responsibilities of Media in Society.

#### **GE -2 Intercultural Communication**

- Understands the concept of Society and Culture. Convergence and Impact of Media on Culture.

### **Subject: Environmental Science**

- Master core concepts and methods from ecological and physical sciences and their application in environmental problem solving.
- Appreciate the ethical, cross – cultural and historical context of environmental issues and

the links between human and natural system

- Understand the Trans national character of environmental problems and ways of addressing them, including interactions across local to global scales.
- Apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.
- Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.
- Demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, written and oral communication needed to conduct high level work as interdisciplinary scholars and practioners.
- Gets the knowledge of concepts and methods from economic, political & social analysis as they pertain to the design and evolution of environmental policies and institutions.

## **Subject: SOCIOLOGY**

### **I Semester**

#### **Introduction to Sociology**

- Definition and Meaning of sociology
- Emerging activities in society
- Factors of social institutions

### **II Semester**

#### **Sociology of India**

- Students can understand Indian society and features.

### **III Semester**

#### **Sociological Theories**

- Students read about the thinkers of Sociology and their thoughts

### **IV Semester**

#### **Methods of Sociological Enquiry**

- Students can Know the major analytical and theoretical framework regarding Social research.

### **V Semester**

#### **Rural India in Transition (Elective – 2A)**

- Understand the Rural development programs and Rural leaderships.

### **V Semester**

#### **Urban Sociology (Elective – 2A)**

- Learners can Understanding the Values of Democracy
- Students are able to explain the institutional aspects of Democracy

#### **Social Problems In India(Generic Elective-1)**

- Students can Understanding the features of Social problems in India

### **VI Semester**

#### **Medical Sociology (Elective – 2B)**

- Knowledge of Public Policy of Health and Medical System.

#### **Gender And Sexuality (Elective-2B)**

- Students can Understand the concept of Gender and Sex



## **Population Studies In India(Generic Elective-2)**

- Students can Understand the Population and its Challenges

### **Course : BCom**

#### **I Semester**

##### **1.4 Business Organisation And Management DSC-2**

- The course aims to provide basic knowledge to the students about the organisation and management of a business enterprise.

##### **1.5 Financial Accounting DSC-1**

- Students acquire conceptual and practical knowledge of the financial accounting and impart skills for recording various kinds of business transactions.

##### **1.6 Marketing Management DSC-3**

- Gain basic knowledge of concepts, principles, tools and techniques of marketing.

#### **II Semester-**

##### **2.4 Banking And Insurance DSC-4**

- Gain knowledge about the basics of banking and insurance.

##### **2.5 Cost Accounting DSC-5**

- Acquaint with basic concepts used in cost accounting, various methods involved in cost ascertainment and cost determination.

##### **2.6 Financial Accounting – II DSC-6**

- Develop an understanding among the students the use of different accounting methods in different business situation.

#### **III Semester-**

##### **3.4 Income Tax DSC-7**

- Gain basic knowledge and equip with application of principles and provisions of Income-tax Act, 1961 and the relevant Rules.

##### **3.5 Business Law DSC-8**

- Get the basic knowledge of important business regulations.

##### **3.6 Computer Applications In Business SEC-1**

- Imbibe computer skills and knowledge and to enhance the understanding of usefulness of information technology tools for business operations.

#### **IV Semester-**

##### **4.3 Corporate Accounting**

- Acquire the basic knowledge of the corporate accounting and to learn the techniques of preparing the financial statements of a company.

##### **4.4 Corporate Law**

- Assimilate basic knowledge of the provisions of the Companies Act 2013. Learn solving case studies involving issues in company law.



#### **4.5 Women Entrepreneurial Development**

- Able to create new businesses by generating innovative business ideas useful to community and manage their enterprises successfully with a positive impact on the society.

#### **4.6 Computer For Accounting SEC-2**

- Acquire knowledge about the tally accounting package.
- Develop skill in preparing financial statements in tally.

### **V Semester-**

#### **5.1 Business Taxation DSC -12**

- Acquaintance on Business Taxation and Tax planning and its impact on business decision making.

#### **5.1 Business Research Methods**

- Acquisition basic knowledge in business research methods and to develop basic skills in them to conduct survey researches.

#### **5.2 Business Mathematics**

- Familiarize with the applications of mathematics and statistical techniques in business decision-making.

#### **5.3 Professional Communication And Soft Skills**

- Develop into strong personality with positive attitude for better personal efficiency and organizational effectiveness.

#### **5.4a Auditing And Corporate Governance**

- Get awareness on the modern trends and practices of Auditing and to understand the contemporary issues of corporate governance.

#### **5.4b Financial Decisions**

- Familiarize with the principles and practices of financial management.

#### **5.4c International Marketing**

- Acquaint with the operations of marketing in international environment.
- Enable acquiring knowledge about global agencies

#### **5.4d Business Decisions**

- Learn application of micro economic concepts and techniques in evaluating business decisions taken by firms. The emphasis is on explaining how tools of standard price theory can be employed to formulate a decision problem, evaluate alternative courses of action and finally choose among alternatives. Simple geometry and basic concepts of mathematics will be understood.

#### **5.5a Retail Management**

- Familiarize about functions of a retailer
- Familiarize about retailing in India and International retailing

#### **5.5 b Business Research Methods**

- Acquire basic knowledge in business research methods and develop basic skills to conduct survey researches.

### **5.5c Security Analysis & Portfolio Management**

- Comprehend conceptual framework for analysis from an investor's perspective of maximizing return on investment – a sound theoretical base with examples and references related to the Indian financial system.

### **5.5d Human Resource Management**

- Understand the techniques and principles to manage human resource of an organization.

### **5.6a Management Of Financial Institutions**

- Acquaint the importance of financial institutions in economic development.

### **5.6b International Financial Reporting Standards**

- Learn essential knowledge of International Financial Reporting Standards and its Practical application.

### **5.6c Strategic Corporate Finance**

- Able to evaluate corporate finance and the strategies involved in the corporate decisions.

### **5.6d International Finance**

- Familiarize with international financial environment, instruments and institution

## **VI Semester-**

### **6.1 GST & Customs Duty**

- Gain thorough knowledge of Goods and services tax.
- Enable to become consultants in the field of GST.

### **6.2 Management Accounting**

- Assimilate knowledge about the use of financial, cost and other data for the purpose of decision making.

### **6.3 Project Work**

- Practical exposure to be field of business and analysis and interpretation of problems thereat.

### **6.3 Event Management**

- Conceptualize framework of event management, event services, conducting event and managing public relations.

### **6.4a Financial Instruments**

- Understand conceptual framework of Money Market and financial derivatives and commodity derivative instruments.

### **6.4b International Business**

- Familiarize with the concepts, importance and dynamics of international business and India's involvement with global business. Further theoretical foundations of international business to the extent these are relevant to the global business operations and developments are comprehended.

### **6.4c Business Legislation**

- Acquire special knowledge of law and practice relating to Legislation.

### **6.4d Strategic Management**

- Explore conceptual framework and models which assist to analyse competitive situation

### **6.5a Business Statistics**

- Familiarize with calculation of average and tests and to ensure the knowledge and its implementation in research field.

### **6.5b Insurance Management**

- Appreciate importance of insurance in business.

### **6.5c Organisational Behaviour**

- Acquaint with the fundamentals of managing business and understand individual and group behaviour at work place so as to improve the effectiveness of an organization.

### **6.5d Management Information System**

- Equip with the finer nuances of MIS.

### **6.6a Office Management And Secretarial Practice**

- Familiarize with the activities in a modern office and its smooth functioning.

### **6.6b Business Ethics And Corporate Social Responsibility**

- Gain knowledge on meaning, scope, types of ethics, characteristics, factors, influencing business ethics, importance of business ethics, arguments for and against business ethics.

### **6.6c Working Capital Management**

- Acquaint the techniques of financial management and their applications for business decision making.

### **6.6d Business Decisions-II**

- Familiarise about the demand forecasting and pricing policies and practices

## **Course : BBA**

### **I SEMESTER**

#### **1.4 Financial Accounting and Analysis**

- Familiarize the mechanics of preparation of financial statements, understanding corporate financial statements, their analysis and interpretation.

#### **1.5 Women Entrepreneurial Development**

- Get entrepreneurial skills well nurtured

#### **1.6 Principles Of Management DSC-3**

- Acquaint with the fundamentals of management.

### **II Semester**

#### **2.4 Organisational Behaviour**

- Understand individual and group behaviour at work place to attain enhanced organizational effectiveness.

#### **2.5 Cost Accounting**

- Acquaint basic concepts used in cost accounting, various methods involved in cost ascertainment and cost accounting book keeping systems.

#### **2.6 Marketing Management**

- Gain basic knowledge of the concepts, principles, tools and techniques of marketing.

### **III Semester**

#### **3.4 Business Law**

- Acquire the basic knowledge of important business regulations.

#### **3.5 Income Tax**

- Appreciate the basic knowledge and equip students with application of principles and provisions of Income - tax Act, 1961 and the relevant Rules

#### **3.6 Statistics For Business**

- Familiarize with various Statistical Data Analysis tools that can be used for effective decision making. Emphasis will be on the application of the concepts learnt.

### **IV Semester**

#### **4.4 Corporate Law**

- Get basic knowledge of the provisions of the Companies Act 2013. Acquisition of Skill on case studies analysis.

#### **4.5 Computer Applications In Business**

- Practical usage of computer knowledge for solving business problems

#### **4.6 Quantitative Techniques**

- Acquaint with the construction of mathematical models for managerial decision situations and to use computer software packages to obtain a solution wherever applicable. With emphasis on understanding the concepts, formulation and interpretation.

### **V Semester**

#### **5.1 Executive Communication And Personality Development**

- Get enhanced the communication skills thus resulting in holistic development.

#### **5.2 Corporate Governance**

- Understand the contemporary issues of corporate governance.

#### **5.3 Financial Decisions**

- Familiarize with the principles and practices of financial management.

#### **5.4 Computer For Accounting**

- Acquire knowledge about the tally accounting package.
- Develop skill in preparing financial statements in tally.

#### **5.5a Human Resource Management**

- Learn to manage the human resources effectively in an organization.

#### **5.5b Business Research Methods**

- Acquire basic knowledge in business research methods and to develop basic skills in them to conduct survey researches.

#### **5.5c Business Decisions-I**

- Understanding applications of micro economic concepts and techniques in evaluating business decisions taken by firms.

#### **5.5d International Business**

- Understanding the international business in a multi cultural world.

### **5.6a Corporate Tax Planning**

- Acquire basic knowledge of corporate tax planning and its impact on decision-making.

### **5.6b Portfolio Management**

- Conceptualize the framework for analysis from an investor's perspective of maximizing return on investment.

### **5.6c Insurance Management**

- Understand the management of insurance business.

### **5.6d International Marketing**

- Acquire knowledge about the operations marketing in international environment.

## **VI Semester**

### **6.1 Strategic Management**

- Understand and evaluate corporate strategies.

### **6.2 GST & Customs Duty**

- Gain knowledge of Goods and services tax.
- Venturing into tax consultants profession.

### **6.3 Management Accounting**

- Assimilating knowledge about the use of financial, cost and other data for the purpose of decision making.

### **6.4 Project Work**

- Practical exposure to be field of business and analysis and interpretation of problems thereat.

### **6.4 Event Management**

- Conceptualize the framework of event management, event services, conducting event and managing public relations.

### **6.5a Retail Management**

- Familiarize about functions of a retailer and retailing in India and International retailing.

### **6.5b Theory And Practice Of Banking**

- Acquaintance of theory and practice of banking.

### **6.5c Business Decisions**

### **Office Management And Secretarial Practice**

- Familiarize with the activities in a modern office that lead to smooth functioning.

### **6.6a Hotel And Tourism Management**

- Acquaint in managing hotel and tourism services.

### **6.6b Financial Markets And Institutions**

- Understand the different aspects and components of financial Institutions and financial markets.

### **6.6c Working Capital Management**

- Acquaintance in the techniques of financial management and their applications for business decision making.

### **6.6d Management Information System**

- Learning finer nuances of MIS.

### **6.3 Project Work**

- Practical exposure to be field of business and analysis and interpretation of problems thereat.

## **Course: BCA**

### **I Semester**

#### **Computer Fundamentals and PC maintenance**

- Identify the tools and test equipment associated with PC repair and maintenance activity.
- Know how hardware and software works together in the operation of a PC, and outline the process for assembling and disassembling a personal computer

#### **Digital Electronics and Computer Architecture**

- Present the principles of combinational and sequential digital logic circuits and optimization at a gate level.
- The uses and applications of logic gates and universal gates.

#### **Programming in C and Python**

- Understanding Problem solving through computer programming
- Familiarity of programming environment in an operating system
- Ability to use different control structures
- Ability to deal with different input/output methods

### **II Semester**

#### **Problem Solving and Data Structure**

- Understands the abstract data types stack, queue, deque, and list.
- Understands the performance of the implementations of basic linear and non linear data structures.
- Understands and implementation of data structures
- Able to implement the abstract data type list as a linked list using the node and reference pattern.

#### **Database Management System**

- Understanding database and database management system and RDBMs
- Describe different database architecture and analyses the use of appropriate architecture in real time environment
- Understanding how to design relational database
- Implementing relational database using SQL & PL/SQL

#### **Visual Programming**

- Problem solving through computer object oriented programming
- Familiarity of programming environment in an .NET framework
- Ability to use different control structures
- Ability to design windows application
- Ability to do database connectivity

### **III Semester**

#### **Operating system**

- Analyze and synthesize system software
- Implement operating system functions
- Implementation of UNIX commands

### **Advanced Visual Programming**

- Ability create dynamic web pages using ASP.NET
- Implementation of web services
- Understanding client server technology
- Implementation of database connectivity to a web page
- Creating small websites

### **Software Engineering**

- Decide on a process model for a developing a software project
- Classify software applications and Identify unique features of various domains
- Design test cases of a software system

## **IV Semester**

### **Java Programming**

- To understands the platform independent concepts
- Ability to use different control structures
- Ability to deal with different input/output methods
- Ability to understand object oriented concepts
- Ability to design own package and applet

### **Computer Networks**

- Analyze the requirements for a given organizational structure to select the most appropriate networking architecture
- Demonstrate design issues, flow control and error control
- Analyze data flow between TCP/IP model using Application, Transport and Network Layer Protocols
- Illustrate applications of Computer Network capabilities, selection and usage for various sectors of user community
- Illustrate Client - Server architectures and prototypes by the means of correct standards and technology.
- Demonstrate different routing and switching algorithms

### **Object Oriented Analysis and Design**

- Be able to use an object-oriented method for analysis and design
- Be able to analyze information systems in real-world settings and to conduct methods such as interviews and observations
- Have a general understanding of a variety of approaches and perspectives of systems development, and to evaluate other IS development methods and techniques
- Know techniques aimed to achieve the objective and expected results of a systems development process
- Know different types of prototyping
- Know how to use UML for notation

## **V Semester**

### **Operational Research**

- Understand how to translate a real-world problem, given in words, into a mathematical formulation.
- Better understand design and analysis of algorithms: specifically through complexity analysis.
- Write and apply computer code to problems,.  
Specific knowledge: Formulate a Linear Program (LP) or translate into standard form, and use the Simplex Method to solve, Use duality and complementary slackness to analyze problems, for instance in applying sensitivity analysis to a LP. Formulation and solution of network problems using graph optimization algorithms. Use branch-and-bound and heuristic methods to solve general integer problems.
- Ability to work in a team: specifically to solve larger problems, communicate technical knowledge, partition a problem into smaller tasks, and complete tasks on time.

### **Data warehouse and Data mining**

- Interpret the contribution of data warehousing and data mining to the decision-support level of organizations
- Evaluate different models used for OLAP and data preprocessing
- Categorize and carefully differentiate between situations for applying different data-mining techniques: frequent pattern mining, association, correlation, classification, prediction, and cluster and outlier analysis
- Design and implement systems for data mining
- Evaluate the performance of different data-mining algorithms
- Propose data-mining solutions for different applications

### **E-Commerce Technology**

- Demonstrate an understanding of the foundations and importance of E-commerce
- Demonstrate an understanding of retailing in E-commerce by:
  1. Analyzing branding and pricing strategies,
  2. Using and determining the effectiveness of market research
  3. Assessing the effects of disintermediation.
- Analyze the impact of E-commerce on business models and strategy
- Describe Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational.
- Describe the infrastructure for E-commerce
- Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other.
- Discuss legal issues and privacy in E-Commerce
- Assess electronic payment systems
- Recognize and discuss global E-commerce issues

### **PHP Programming**

- Analyze and apply the role of languages like HTML, XHTML, CSS, XML, JavaScript, PHP and protocols in the workings of the web and web applications
- Analyze a web page and identify its elements and attributes



- Create web pages using HTML, XHTML and Cascading Style sheets
- Create dynamic web pages using JavaScript
- Create interactive web applications using php

### **Cloud Computing**

- Develop and deploy cloud application using popular cloud platforms
- Design and develop highly scalable cloud-based applications by creating and configuring virtual machines on the cloud and building private cloud
- Explain and identify the techniques of big data analysis in cloud
- Compare, contrast, and evaluate the key trade-offs between multiple approaches to cloud system design, and Identify appropriate design choices when solving real-world cloud computing problems.

### **Analysis and Design of Algorithm**

- Argue the correctness of algorithms using inductive proofs and invariants.
- Analyze worst-case running times of algorithms using asymptotic analysis.
- Describe the divide-and-conquer paradigm and explain when an algorithmic design situation calls for it. Recite algorithms that employ this paradigm. Synthesize divide-and-conquer algorithms. Derive and solve recurrences describing the performance of divide-and-conquer algorithms.
- Explain the major graph algorithms and their analyses.
- Explain what amortized running time is and what it is good for. Describe the different methods of analysis (aggregate analysis, accounting, and potential method). Perform analysis.
- Explain what competitive analysis is and to which situations it applies. Perform competitive analysis.
- Compare between different data structures. Pick an appropriate data structure for a design situation.
- Explain what an approximation algorithm is, and the benefit of using approximation algorithms.

### **J2EE**

- Explain the JSP technology, its features and advantages
- Explain Web development process and various server-side technologies
- Develop JSP applications using JSP Tags, JSP Script lets and JavaBeans
- Explain JSP Application Models
- Develop JSP applications implementing Session Management and Database
- Connectivity

### **Numerical Techniques and Statistics**

- Apply numerical methods to obtain approximate solutions to mathematical problems.
- Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.
- Analyse and evaluate the accuracy of common numerical methods
- Implement numerical methods in SPSS

### **Computer Graphics**

- Understand the structure of modern computer graphics systems
- Understand the basic principles of implementing computer graphics primitives
- Familiarity with key algorithms for modelling and rendering graphical data
- Develop design and problem solving skills with application to computer graphics
- Gain experience in constructing interactive computer graphics programs using C programming language

### **R Programming**

- Understand the concepts of R programming language
- Manipulate data within R
- Perform basic data analysis procedures
- Create plots

### **Computer Simulation**

- Understand fundamental concepts of computer simulation and its role in problem solving.
- Develop and model problems and apply procedures for modelling systems.
- Appreciate the advantages of using simulation and modelling for taking decision in problems.
- Understand the need to incorporate simulation and modelling considerations throughout the design and execution of a project aiming at understanding its limitations and ways of improvement.

### **Graphics Design Interface using c#**

- Understanding the basic concepts of graphics
- Designing posters, flyers, web banners and magazine ads using C#
- Creating images and illustrations for our social media accounts C#
- Setting up files for printing
- Coordinating production timelines with printers

### **XML Programming**

- Design and code data transfer scripts using XML languages for the transfer of data over business networks and the Internet.
- Validate XML documents with the use of Document Type Definitions and schemas according to industry standards.

## **VI Semester**

### **Android Programming**

- Install and configure Android application development tools.
- Design and develop user Interfaces for the Android platform.
- Save state information across important operating system events.
- Apply Java programming concepts to Android application development.

### **Multimedia Computing**

- Discuss the technical details of common multimedia data formats, protocols, and compression techniques of digital images, video and audio content.
- Describe and understand the technical details of JPEG and MPEG families of standards.
- Discuss the significance of “Quality of Service” in multimedia networking.

- Describe the principles and technical details of several wired and wireless networking protocols.
- Develop simple but demonstrative multimedia applications using JAI and JMF.
- Understand and describe technical aspects of popular multimedia web applications including VoD and VoIP

### **Fuzzy Logic**

- Learn crisp and fuzzy set theory
- Decide the difference between crisp set and fuzzy set theory.
- Make calculation on fuzzy set theory.
- Recognize fuzzy logic membership function.
- Recognize fuzzy logic fuzzy inference systems
- Make applications on Fuzzy logic membership function and fuzzy inference systems.
- Analyse statistical data by using fuzzy logic methods.
- Compare statistical methods against fuzzy logic methods.
- Get theory of the statistics fuzzy logic theory together
- Evaluate fuzzy statistics applications.

### **Internet Programming**

- Understanding HTML and HTML tags
- Implementing multimedia using HTML5
- Learn about coding, testing and debugging in JavaScript
- Learn about Cascading style sheet
- Embedding html , JavaScript and CSS and able to develop small website

### **Microprocessor**

- Realize the data transfer
- Ability to write the program by using the instructions of conditioned branching.
- Ability to know how to write instructions which have to be repeated in the program in various loops.
- Write and apply programmes consist of arithmetic and logical works and shift work.

### **Digital Image Processing**

- Demonstrate a knowledge of a broad range of fundamental image processing and image analysis techniques and concepts (linear and non-linear filtering, denoising, deblurring, edge detection, line finding, detection, morphological operators, compression, shape metrics and feature based recognition)
- Identify, Demonstrate and apply their knowledge by analysing image processing problems and recognising and employing (or proposing) effective solutions
- Design and create practical solutions to a range of common image processing problems and to critically assess the results of their solutions, including shortcomings

### **Project Work**

- To write review SRS, reliability testing reports, and other software engineering documents in the project report;
- To write problem solution using multi-core, distributed, embedded,
- To write the test cases to demonstrate the results of the project;

- To write code using FOSS tools and technologies or proprietary Tools as per requirements;
- To practice presentation, communication and team-work skills

### **Advanced R Programming**

- Understand List and frames
- Understanding how to use Loops and implementation
- Understanding how to write own functions
- Preparation of statistical Model

### **Advanced Computer Simulation**

- Able to design some simulation experiments
- Able to prepare discrete System simulation

### **Tally**

- Understanding accounts and types of accounts
- Able to create ledger, voucher and balance sheet using tally software

### **Advanced XML**

- Able to Use database connectivity in XML
- Understanding CSS and implementation in XML
- Able to create Activex object

## **Course: BSc**

### **Subject: Botany**

#### **I Semester**

#### **Microbial diversity, Algae, Fungi, Plant Pathology and Bryophytes**

- Acquaint knowledge about distribution of microbes
- Importance and role of microbes
- Knowledge about diseases of economically important plants

#### **II Semester**

#### **Pteridophytes, Gymnosperms, Anatomy of Angiosperms and Reproductive Biology**

- Diversity of spore bearing plants
- Distribution of naked seeded plants
- Fossil formation and extinct plants
- Internal, epidermal structures of Angiosperms
- Reproductive Biology helps in understanding plant breeding, crop improvement activities

#### **III Semester**

#### **Morphology and Taxonomy of Angiosperms and Plant Propagation**

- Diversity of flowering plants
- Useful plants products
- Medicinal uses to cure ailments
- Learning the methods of propagation

## **IV Semester**

### **Plant physiology and Evolution**

- Knowledge of physiology helps in understanding the basic requirements of plants growth and development of plants.
- Unique features of plants like maintaining ecological balance by evolving oxygen and carbon dioxide etc.,
- Understand the evolving of present day plant groups

## **V Semester**

### **Cell biology, Molecular Biology and Ecology (Elective 1)**

- Learning basic structural organization at molecular level
- It helps in understanding the genetic engineering techniques
- Understand nature of plants with their habitat

## **VI Semester**

### **Genetics, Genetic Engineering, Plant Breeding And Plant Biotechnology (Elective 3)**

- Learning gene action in plants
- Importance of genetic engineering in the field of agriculture, medicine etc.,
- Knowledge about bringing new varieties of crop plants by plant breeding centres particularly in India

## **Subject: Computer Science**

### **I Semester**

#### **Programming in C and Python**

- Understanding Problem solving through computer programming
- Familiarity of programming environment in an operating system
- Ability to use different control structures
- Ability to deal with different input/output methods

### **II Semester**

#### **Problem Solving and Data Structure**

- To understand the abstract data types stack, queue, deque, and list.
- To understand the performance of the implementations of basic linear and non linear data structures.
- To understand and implementation of data structures
- To be able to implement the abstract data type list as a linked list using the node and reference pattern

### **III Semester**

#### **Operating system and Software Engineering**

- Analyze and synthesize system software
- Implement operating system functions
- Implementation of UNIX commands
- Decide on a process model for a developing a software project
- Classify software applications and Identify unique features of various domains
- Design test cases of a software system

**IV Semester**  
**RDBMS and Visual Programming**

- Understanding database and database management system and RDBMs
- Describe different database architecture and analyses the use of appropriate architecture in real time environment
- Understanding how to design relational database
- Implementing relational database using SQL & PL/SQL
- Problem solving through computer object oriented programming
- Familiarity of programming environment in an .NET framework
- Ability to use different control structures
- Ability to design windows application
- Ability to do database connectivity

**V Semester**  
**JAVA and Computer Networks**  
**(Elective1)**

- Emphasis is on programming methods that includes creating and manipulating objects, classes and using object-oriented tools such as the class debugger
- Learn to design, code, test and debug Applet programming, Graphics Programming.
- Understanding topologies, transmission modes, transmission media, OSI and TCP/IP models.

**Internet Programming**  
**(Elective 2)**

- Understanding HTML and HTML tags
- Implementing multimedia using HTML5
- Learn about coding, testing and debugging in JavaScript
- Learn about Cascading style sheet
- Embedding html , JavaScript and CSS and able to develop small website

**Multimedia Computing**  
**(Elective 3)**

- Discuss the technical details of common multimedia data formats, protocols, and compression techniques of digital images, video and audio content.
- Describe and understand the technical details of JPEG and MPEG families of standards.
- Discuss the significance of “Quality of Service” in multimedia networking.
- Describe the principles and technical details of several wired and wireless networking protocols.
- Develop simple but demonstrative multimedia applications using JAI and JMF.

**Office Automation**  
**(Compulsory paper1)**

- Learn about automation tools, word processing, Spreadsheets, Presentation tools

**XML Programming**  
**(Compulsory paper2)**

- Design and code data transfer scripts using XML languages for the transfer of data over business networks and the Internet.
- Validate XML documents with the use of Document Type Definitions and schemas according to industry standards

**VI Semester**  
**Advanced visual Programming**  
**(Elective 1)**

- Ability create dynamic web pages using ASP.NET
- Implementation of web services
- Understanding client server technology
- Implementation of database connectivity to a web page
- Creating small websites

**Object oriented Analysis and design**  
**(Elective 2)**

- Be able to use an object-oriented method for analysis and design
- Be able to analyze information systems in real-world settings and to conduct methods such as interviews and observations
- Have a general understanding of a variety of approaches and perspectives of systems development, and to evaluate other IS development methods and techniques
- Be able to know techniques aimed to achieve the objective and expected results of a systems development process
- Know different types of prototyping
- Know how to use UML for notation

**Mobile Application**  
**(Elective 3)**

- Install and configure Android application development tools.
- Design and develop user Interfaces for the Android platform.
- Save state information across important operating system events.
- Apply Java programming concepts to Android application development.

**R Programming**  
**(Compulsory paper1)**

- Understand the concepts of R programming language
- Manipulate data within R
- Perform basic data analysis procedures
- Create plots

**Tally**  
**(Compulsory paper2)**

- Understanding accounts and types of accounts
- Able to create ledger, voucher and balance sheet using tally software

## **Subject: Physics**

### **I Semester**

#### **Mechanics, properties of matter and Waves**

- Familiarisation of the fundamental principles of formulations in mechanics the frames of references, vector derivatives, laws of conservation, properties of matter, fluid mechanics and simple harmonic motion and wave motion, complex waves analysis and development of applications skills.

### **II Semester**

#### **Thermal Physics, Sound and Electrostatics**

- Clarity in the basic principles of thermodynamics, thermodynamic potentials, sound waves and electrostatics etc and development of problem solving skills.

### **III Semester**

#### **Electricity and Electromagnetic theory**

- Clarity and good understanding in the basic principles of thermoelectricity, magnetism and electromagnetic theory, network theorems, analysis and AC circuits development of problem solving skills.

### **IV Semester**

#### **Optics, Atomic and Molecular Spectroscopy**

- Clarity in the basic principles of phenomenon interference, diffraction, polarization etc and development of problem solving and application skills.

### **V Semester**

#### **Relativity, Nuclear Physics and Quantum Mechanics**

##### **(Elective Paper1)**

- Clarity in the basic principles theoretical explanation of the special theory of relativity, cosmic rays and particle physics, nuclear Physics and quantum mechanics.

#### **Mathematical physics**

##### **(Elective Paper2)**

- Students will be able to solve problems of different mathematical series.

#### **Lasers and Fibre Optics**

##### **(Compulsory Paper1)**

- Familiarity with Optical components and devices and communication methods.

#### **Astronomy and Astrophysics**

##### **(Compulsory Paper2)**

- Familiarity with an introduction of astrophysics, measuring scales and units, stars and their characteristics and Cosmology.

#### **Nano Materials**

##### **(Compulsory Paper3)**

- Familiarity with an introduction of Nanotechnology, nanoscale, synthesis of nano materials, modern instrumentation and optical properties.



## **VI Semester**

### **Solid State Physics, Electronics and communication**

#### **(Elective paper 1)**

- Clarity in the basic principles theoretical explanation of the concepts, construction and working of semiconducting devices, their identification. About communication system

#### **Medical physics**

#### **(Elective paper 2)**

- Clarity in the mechanics, acoustics optical systems diagnostic and therapeutic systems related to human body.

#### **Optoelectronics**

#### **(Compulsory Paper1)**

- Familiarity with opto electronic devices, its working and their application.

#### **Renewable Energy Sources**

#### **(Compulsory Paper2)**

- Familiarity with renewable energy sources, uses and applications.

#### **Solving Problems in Physics**

#### **(Compulsory Paper3)**

- Students will be able to solve problems under different branches of physics.

### **Subject: Mathematics**

#### **I Semester**

- Get the concept of symmetric, skew symmetric matrices, elementary row operations, echelon form, Solving homogeneous, Non homogeneous system of linear equations and Cayley-Hamilton theorem.
- Understand the concept of successive differentiation, homogeneous functions, Euler's theorem, Jacobian and properties.
- Memorize the concept of Reduction formulas for both Indefinite and definite integrals.

#### **II Semester**

- Able to define groups, abelian group, permutation groups, subgroups and understand the general properties.
- Understand the concept of polar co-ordinate system, pedal equations.
- Understand to solve problems on finding the curvature, radius of curvature, centre of curvature and general rules for various forms of curves tracing.
- Identify the applications of Integral calculus including volume of solids of revolutions.
- Learning the concepts of ordinary differential equations(O.D.E) and recognize the methods of solving Linear, Exact, Homogeneous and non Homogeneous differential equations.

#### **III Semester**

- Understand the concept of order of an element, Coset of a group, Cyclic group, index group and their properties.
- Learning the concept of different sequences and their properties.
- Able to determine different types of series and whether they converges.

- Memorise the concept of types of discontinuities, knowledge of mean value theorems and indeterminate forms.
- Able to represent a periodic function as a Fourier series.

#### **IV Semester**

- Able to define Normal subgroups, homomorphism, isomorphism and their properties.
- Understand the basic concept of Laplace transforms of some functions and standard results.
- Learning the concept of second and higher order ordinary linear differential equations.
- Analysing the convergence of sequence and series of functions.

#### **V Semester**

##### **(Paper1)**

- Understand the concept of calculus of variation.
- Compute line and multiple integrals and their applications.
- Identify the concept of integral theorems and applications of triple integral.
- Learning the concept of vector space, linear transformation and properties.

##### **(Paper2)**

- Identify the important classes of rings, integral domain, fields and properties.
- Able to calculate the gradient of a scalar, curl of a vector field, identify Solenoidal and irrotational vector fields.
- Get the knowledge of finite differences and variation of functions with equal and unequal intervals and numerical integration.

#### **VI Semester**

##### **(Paper 1)**

- Understand the fundamental concepts of complex analysis and the role in modern mathematics.
- Compute complex integration and bilinear transformation.
- Get the concept of numerical solutions of algebraic and transcendental equations.
- Learning solutions of initial value problems for first order ordinary linear differential equations.

##### **(Paper2)**

- Knowledge of vector space which is the foundation of linear algebra and its results.
- Learning linear transformations and standard properties.
- Able to determine the Fourier transformation of a given function and properties.

### **Subject: Biochemistry**

#### **I Semester**

- Cellular basis and chemical foundations of life.
- Unique properties of water & concentration units,
- Biophysical chemistry - Photochemistry, radioactivity, its units and measurement & buffers
- Bio organic chemistry – Classification, structure and importance of Alkaloids, Terpenes & pytochemicals

- Stereochemistry – Types, nomenclature with examples
- Reaction mechanism – Concept of reaction intermediates and mechanism with examples
- Biomolecules – Classification, structure and biological functions of Carbohydrates, amino acids, proteins and nucleic acids

### **II Semester**

- The classification, structure & biological importance of lipids.
- The classification, characteristic properties and importance in different fields of enzymes.

### **III Semester**

- Physiology of muscular system, Nervous system, Cardiovascular system, Excretory system & Gastrointestinal, Endocrine system & hepatic system

### **IV Semester**

- Metabolism of Carbohydrates, amino acids, lipids & nucleic acids
- Oxidative phosphorylation & Photophosphorylation.

### **V Semester**

#### **(Elective paper 1)**

- Knowledge of Nutrition and Assessment of nutritious status
- Dietary sources, requirement, Biological functions & deficiency disorders of macro & micro nutrients.
- Energy requirement for BMR & different physical activities and their determination
- Nutraceuticals

#### **(Elective paper2)**

- Nutritional disorders such as Kwashiorkor and Marasmus, Scurvy, beri beri, pellagra, Xerophthalmia and Night blindness with relation to biochemical basis for symptoms.
- Metabolic and Lifestyle disorders such as Obesity, diabetes Mellitus & cardiovascular disorders
- Multifactorial disorders & cancer
- Inborn errors of Metabolism & Diseases due to misfolded proteins

#### **(Compulsory Paper-1)**

- Biochemical techniques such as Chromatographic, Electrophoresis, Spectroscopy & centrifugation techniques

#### **(Compulsory Paper-2)**

- Protein isolation, purification & characterization techniques

### **VI Semester**

#### **(Elective paper1)**

- Structure of prokaryotic & eukaryotic genes Replication of DNA, Transcription
- translation & mutation under Molecular biology
- Different types of immunity
- Structure & characteristics of Antibodies & Antigens
- Antigen antibody interaction
- Hypersensitivity reactions
- Vaccination

### **(Elective paper2)**

- Plant cell structure.
- Photosynthesis and Carbon assimilation.
- Nitrogen metabolism.
- Regulation of plant growth and Plant tissue culture.

### **(Compulsory Paper-1)**

- Analysis of Urine & blood for various constituents & their clinical significance.
- Disorders of Carbohydrate metabolism.
- Gastric function, Pancreatic Function, Kidney function & Liver function tests
- Serum enzymes in liver disease
- Cardiac injury profile

### **(Compulsory Paper-2)**

- Basics in Biostatistics
- Bioinformatics - Biological databases and data retrieval &- Sequence alignment

## **Subject: Microbiology**

### **I Semester**

#### **Introduction to Microbiology and Bacteriology**

- Adoption of concepts of Microbiology for healthy, hygienic and better living.
- Student gains better knowledge in handling Microscopy, Staining techniques, Sterilization techniques, Preparation of Culture media, Culture techniques.
- Student understands the structure of bacterial cell and its nutritional requirements and nutritional types

### **II Semester**

#### **Microbial Diversity and Environmental Microbiology**

- Student understands the Diversity in microbial life and its role in environment
- Student learns the method to classify and naming of microbes.
- Student understands the role of microbes in biogeochemical cycles for sustainment of plant, animal and human life.

### **III Semester**

#### **Virology, Microbial Physiology, Microbial Genetics and Dairy Microbiology**

- Student understands the concepts of virology, bacterial growth and bacterial photosynthesis.
- Student learns role of microbes in understanding genetics.
- Student understands the role of microbes in preparation of fermented dairy products and Preservation of dairy products.

### **IV Semester**

#### **Microbial Metabolism, Genetic Engineering and Food Microbiology**

- Student understands the concepts of Microbial metabolism.
- Student learns role of microbes in development of the field Genetic Engineering.
- Student understands the role of microbes in food spoilage, food borne diseases, preparation of fermented food products.

## **V Semester**

### **Agricultural Microbiology, Industrial Microbiology and Microbial Biotechnology (Elective paper1)**

- Student understands the eco-friendly role of biofertilizers and biopesticides in agriculture.
- Student learns role of microbes in fermentation process for Industrial production.
- Student understands the role of microbes in prevention of pollution of environment by secondary treatment of sewage.
- Student understands the role of microbes in cost effective immobilization process and eco-friendly bioremediation.

### **Plant Pathology (Elective Paper2)**

- Student understands role of plant pathogen in stages of disease development.
- To study the different plant diseases with its causative agents.
- Student learns epidemiology and control of disease.

### **Food Fermentation Techniques**

#### **Compulsory paper1**

- Student understands the role of starter culture in preparation of fermented food products.
- Student learns the preparation of different types of fermented foods its health benefits.

### **Biofertilizers and Biopesticides**

#### **Compulsory paper2**

- Student understands the role of biofertilizers and biopesticides.
- Student learns the preparation of different types of biofertilizers and biopesticides.

## **VI Semester**

### **Immunology, Medical Microbiology and Phytopathology**

#### **Elective paper3**

- Student understands concepts of immune system.
- Student learns immunoprophylaxis, immunotherapy, immunopathology and diagnosis.
- Student study the different types of human diseases and its treatment.
- To study the different types of plant diseases and its treatment.

### **Microbes in Sustainable Agriculture and Development**

#### **Elective paper4**

- Student understands the role of microbes in soil formation, soil microflora and mineralization.
- Student learns the preparation of different types of biofertilizers and biopesticides.

### **Microbial Diagnosis in Health Clinics**

#### **Compulsory paper3**

- Student learns the collection of different types of lab specimen for disease diagnosis.
- Student learns the different methods used in disease diagnosis.

### **Management of Human Microbial Diseases**

#### **Compulsory paper4**

1. Student learns about emerging human microbial diseases.
2. Student learns prevention of microbial diseases of human.

## **Subject: Chemistry**

### **I Semester**

- The fundamental properties and basic model of atoms, simple quantum mechanical treatments of atoms and shapes of the orbitals which are important to understand the reaction mechanism and formation of molecule.
- The arrangement of elements in the periodic table in different blocks and the variation of different properties in the periodic table and the factors responsible for the variation.
- Basic concept of organic chemistry identify basic types of chemical reactions in organic chemistry.
- Types of indicators used in different reactions and the theory involved in it, miscibility of different liquid mixtures at respective temperatures, principles of fractional distillation and applications, distribution laws and applications and the students will be able to work out numerical problems.
- Use of the concept of the mole in quantitative chemical calculations, understand stoichiometric relationship involved in reactions.
- Use of different methods of purification of compound and naming of different organic compounds in IUPAC system. Role of organic compounds in daily life.

### **II Semester**

- The bonding fundamentals of ionic and covalent compounds, including bond energies using MO diagrams.
- Predicting geometries of simple molecules with the use of theory.
- Stability of conformational isomers of cycloalkanes, naming of different aromatic hydrocarbons different naming reactions aromatic derivatives, and effect of nature of alkyl groups, leaving groups, nucleophiles and solvents on nucleophilic substitution reaction.

Students learn how reaction rates are measured and represented in rates laws and application of chemical kinetics.

- Ionic equilibria; theory of strong electrolytes, degree of hydrolysis, effect of temperature and dilution on degree of hydrolysis.
- Preparation and synthetic applications of organic reagents, types and classification of polymers, solving numerical problems on determination of molar mass of polymer.
- Comparison of organic and inorganic precipitates how soaps and detergents act on dirt in cleaning process.

### **III Semester**

- Position of the transition elements in the periodic table, chemistry of inner transition elements, chemistry of organometallic compounds and structures of few rare organometallic compounds.
- Types of alcohols and their preparations and uses, classification of phenols, why phenol is corrosive and few naming reaction associated with phenols, chemistry of ethers, epoxides, crown ethers and carbonyl compounds and the mechanism involved with few important reactions.
- Need for the thermodynamics of second law, significance of entropy, calculating bond energy, bond dissociation energy and resonance energy using thermodynamic data.

- X-ray crystallographical studies and numerical problems in solving the crystals, different chromatographical techniques and its use in separation, knowledge of different energy sources, fundamental uniqueness of the chemical and physical properties of nanomaterials and their potential impact in science, methods of nanomaterials preparation, aminoacids which are the building blocks of proteins and one can think of constructing new peptide bonds at nano level.

#### **IV Semester**

- Bonding in complexes and types, Concept of VBT and CFT in understanding the geometry of complexes, application of complexes in treating cancer and heavy metal poisoning, Ligan field theory which is the evidence for cbonding in complexes.
- Stereochemistry of organic compounds, types of isomerism in organic chemistry, classification of carbohydrates, structural elucidation of carbohydrates like glucose fructose.
- Partial structure of polysaccharides.
- Elemental quantum mechanics, concept of black body radiation, to determine equivalent conductance at infinite dilution for weak electrolyte, transport number, application of conductance measurements and conductometric titrations.
- Classification of acids and bases as Hard and Soft, gravimetric estimations and its advantages.
- Structure and synthesis of dyes.
- Concept of viscosity measurements, intermolecular forces, size and weight of the molecules, surface tension and parachor.

#### **V Semester**

- Industrial applications of inorganic chemistry in manufacturing of glass, ceramics, cements, study of paints in dept.
- Synthetic method of preparing terpenes, Synthesis of different class of heterocycles which play a very important role in pharmaceutical chemistry.
- Structure and classification of alkaloids, uric acids, vitamins, harmones, different chemotherapeutic agents and their synthesis.
- Photochemistry and radiation chemistry, new spectroscopic methods like IR, Raman Spectroscopy, molecular spectroscopy, electronic spectra.

#### **VI Semester**

- Types of metallurgy and metallurgical applications of inorganic chemistry in manufacturing of different metals and their purification.
- Production of ferro alloys.
- structure and role of metal ion in biological system with reference to  $\text{Na}^+$ ,  $\text{K}^+$  and  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$  ions , enzymatic role of metals in heamoglobin and myoglobin. Natyral pigments, hydroxyl
- synthesis of organic polymers by utilizing special techniques, classification and synthesis of nucleic acids, hydroxyl acids, diazonium compounds.
- Spectroscopic method of identification of compounds; IR, UV visible and NMR spectroscopy in depth.
- Electrochemistry ; cell construction, applications of EMF measurements, concept of



phase equilibria, adsorption and kinetics of fast reactions and principles of techniques stopped flow method, flash photolysis, temperature jump method and pressure jump method.

### **Subject: Biotechnology**

#### **I Semester**

##### **DSC 1**

- **Biomolecules :** Students learn to identify chemical elements. Compare and contrast the structure and function of the carbohydrates, proteins, nucleic acids, lipids. Identify their chemical elements and functional groups .Recognize the structure of sugars & amino acid and the peptide bond that connects di-, tri, and polypeptides.
- **Cell Biology:** Students will understand the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles, how these cellular components are used to generate and utilize energy in cells and understand the cellular components underlying mitotic cell division.
- **Genetics :** Genetics introduces the principles of evolutionary and quantitative characters to students. They will understand relationships between molecule/cell level phenomena (“modern” genetics) and organism-level patterns of heredity (“classical” genetics) and will test and deepen their mastery of genetics by applying this knowledge in a variety of problem-solving situations such as Laws of segregation and independent assortment.

##### **DSC 2**

- **Microbiology :** Students learn classification of micro organisms, isolation, culture , staining, identification, pure culture techniques, maintenance and preservation of cultures etc.
- **Enzymology:** Students will study enzyme structure, cofactor and coenzymes chemical structure , factors that affect enzyme activity, such as , pH , concentration.
- **Cellular Metabolism:** Students learn the metabolic pathways - the energy-yielding and energy-requiring reactions in life and understand the diversity of metabolic regulation.

##### **DSC 3**

- **Bio-Analytical Techniques:** Students learn the basic principle and applications of gel electrophoresis, chromatographic separations and centrifugation techniques.
- **Molecular Biology:** Students learn the molecular mechanism of DNA replication, transcription and Translation; Compare the structure of eukaryotic genes with the structure of simpler prokaryotic genes.
- **Genetic Engineering:** They study on enzymes used in genetic engineering, polymerase chain reaction (PCR), gene transfer techniques, genetic engineering applications, production of transgenic animals and plants and their products.

##### **DSC4**

- **Immunology and Immuno technology:** Students learn the basic mechanisms of innate and adaptive immunity, the cellular/molecular pathways of humoral/cell-mediated adaptive responses, regulation of immune responses and immune tolerance, cytokine biology.
- **Medical Biotechnology:** This study includes study on recent advances in biotechnology in



the field of medicine like vaccine therapy, hormone therapy, enzyme therapy, cytokine therapy, MCA therapy, gene therapy, antisense technology, nucleic acids in treatment and diagnosis of diseases.

### **DSE 1**

- Plant Cell and Tissue Culture: Students study the vast application of plant tissue culture which includes Anther culture, pollen culture, germplasm conservation, somaclonal variation, synthetic seeds, somatic embryogenesis, protoplast technology, micropropagation, ovary/ovule/embryo culture etc.
- Animal Tissue Culture: Students learn the theory and practice of animal tissue culture with their role and applications in biotechnology and biochemical research. The topics covered in this course include media preparation, sterile techniques, aseptic handling, initiation and routine maintenance of cells in culture, common contaminants of animal cell culture, and understanding of some of the applications of cell culture technology e.g. somatic cell fusion and hybridoma technology.
- Reproductive Technology: Students will learn the principle and applications of artificial methods of conception – test tube baby, ZIFT, IUD, Contraception etc.

### **DSE 2**

- Environmental Biotechnology: Students will learn the biotechnological methods in pollution abatement, biodegradation of xenobiotic compounds, biohydro metallurgy and bio-mining, treatment of industrial wastes: pulp, dye, leather and solid waste management and eco friendly bio-products.
- Agricultural Biotechnology : Students will learn the applications of research areas of Agricultural Biotechnology that include: gene cloning, construction of novel pest and disease resistance genes, development of new immunological and nucleic acid types of diagnostic probes for plant and animal disease, genetic engineering of microorganisms for the production of important pharmaceutical agents, and development of new bioengineered strains of microorganisms for fermentation and food production services.
- Food Biotechnology : The course discusses food processing and enzymes involved in food processing , fruit ripening and its manipulation, role of ACC syntheses, genetically modified foods- Golden rice, transgenic potato, transgenic fish, biotechnology in dairy industry.

## **Course: MA Economics**

### **I Semester**

#### **Hard Core Paper-1**

#### **Advanced Microeconomics**

- To expose students to microeconomic analysis
- To enable students to understand principles of microeconomics
- To familiarize with issues relating to product pricing and its models

#### **Hard Core Paper 2**

### **Statistics for Economics**

- To impart knowledge about the concepts and statistical tools for economic analysis.
- To make students apply these for estimation and forecasting

### **Hard Core Paper 3**

### **Mathematics for Economics**

- 1. To impart knowledge about the concepts and tools of mathematics
- 2. To make students apply these in building models

### **Hard Core Paper 4**

### **Econometrics-1**

- To impart knowledge about the concepts and mathematical and statistical tools in building econometric models
- To make students apply these in models for estimation and forecasting

### **Soft Core Paper 1**

### **Practice of Banking and Insurance**

- To expose the students to Indian Banking System along with the latest reforms in Banking.
- To enable the students to understand prudential norms and new technologies in Banking and Insurance

### **Soft Core Paper 2**

### **Karnataka Economy**

- 1. To familiarize the students with the issues of Karnataka's Economy
- 2. To enable them get regional perspective on issues related to Karnataka Economy

### **Soft Core Paper 3**

### **Gender Economics**

- To familiarize the students about the importance of Gender Economics
- To enable them get perspective on issues related to Gender discrimination and Women Empowerment.

## **II Semester**

### **Hard Core Paper: 05**

### **Development Economics**

- The focus of this Course is on various development policy matters pertaining to the Third world countries. The modules make an attempt to study the critical issues pertaining to various sectors and discuss the development policy initiatives. However, the crucial importance of institutional factors in economic development has been taken care of by incorporating social, state and market forces in the context of development. At the same time the development prospects are also duly recognized by considering the development goals of the 21 st century.

### **Hard Core Paper :06**

### **Statistics for Economics**

- To familiarise students with key macro economic variables and their behaviour, and enable them to critically evaluate different economies.

- To enable students to integrate macroeconomic analysis for policy decisions.

#### **Hard Core Paper :07**

##### **Advanced Indian Economy**

- To familiarize the students with the issues of Indian Economy
- To enable them get perspective on issues related to Indian Economy

#### **Hard Core Paper :08**

##### **Econometrics-II**

- To impart knowledge about the building two variable and multi variable regression Models
- To train students in parameter estimation

#### **Soft Core Paper :04**

##### **Computer Applications to\* Economics**

- To familiarize student with aspect of Computer Applications to Economics
- To develop skills to design and implement Tally and SPSS software for financial accounting and research in economics

#### **Soft Core Paper :05**

##### **Research Methodology and Data Analysis**

- To familiarize students with concepts and techniques of research methodology
- To enable students to do a research / consultancy project

#### **Soft Core Paper :06**

##### **E-commerce in the Emerging Knowledge Economy**

- This course will provide an analytical and technical framework to understand the emerging world of e-commerce and mobile commerce. E-commerce and mobile commerce poses both a challenge and an opportunity for managers. As a matter of competitive necessity, savvy managers must gain an understanding of the rapidly changing technology and business models.

#### **Semester III**

#### **Hard Core Paper: 09**

##### **Public Economics**

- The course on “Indian Public Finance” aims at giving the students an analytical understanding of the growth, pattern and terms in public expenditure, and revenue, and the role of the government in the budgetary process. The Course also focuses on the centre-state financial relations, growth in public debt and its management.

#### **Hard Core Paper: 10**

##### **Theory and Practice of International Trade**

- The course aims to give a thorough understanding about the principles which govern international Trade theories and policies which affects the domestic economy. It gives theoretical basis to the structure of real trade dealings with factors affecting demand, supply and international equilibrium within the classical, neoclassical and modern framework of analysis. It adopts a macro approach in analyzing the principles of commercial policy. The effects of commercial policy on welfare and income distribution are included to enable the students to understand the basis and implications of trade policies adopted in general. Further, it concentrates on trade in dynamic perspective

dealing with the influence of factors growth and technical progress on the terms of trade.

### **Hard Core Paper: 11**

#### **Econometrics-III**

- The explosive growth in econometric literature in the last few decades hardly needs any emphasis. Introduction of this Course can be viewed as an attempt to expose the students to the basic concepts of econometrics. Keeping this in mind, the focus of this Course will be on a meaningful interface between theory and application - the emphasis being more on empirical analysis rather than theoretical rigour

### **Soft Core Paper: 07**

#### **Nanoeconomics**

- To familiarize students with concepts of Nanotechnology and its impact on nano economic activities
- To enable students to map the emerging nano market and nano economy.

### **Soft Core Paper: 08**

#### **Infrastructure Economics**

- The course is basically designed to provide the students with an essential idea on “Social Overhead Capital”. This concept is gaining importance, and, if the burgeoning literature in this area is an indicator of its accelerating credibility, it will soon become as important as “Directly Productive Activities”. It helps to enhance the rate of growth of the economy. The importance of infrastructure in the development process of a country is undisputed. In case of developing countries, lack of infrastructure has been considered as a major obstacle to growth. This course deals with Transport Economics, which forms the core of the sector. It deals with concepts such as - the demand for transport, cost-benefit analysis, valuation of travel, and the role of communication

### **Soft Core Paper: 09**

#### **Experimental Economics**

- To familiarize students with concepts of experimental economics and experimental research.
- To enable students to do research on experimental economics and decision making

### **Open Elective Paper: 01 (Compulsory)**

#### **Consumer and Family Economics**

- To familiarize students with concepts of consumer and family economics
- To enable students to understand the importance of consumer movement.

### **IV Semester**

### **Hard Core Paper: 12**

#### **Government Finance and Budgeting**

- The course gives a thorough understanding of the role and functions of the government in a modern economy. The Government today performs functions different from those of earlier societies. It is this change which is responsible for designating this course as ‘Public Economics rather than the more conventional ‘Public Finance’

### **Hard Core Paper: 13**

#### **Econometrics-IV**

- This course covers the statistical foundations of econometric theory as well as

econometric methods and applications. The focus of this course will be therefore on an interface between these three facets that are essential for a proper understanding of econometric applications in economic analysis.

**Soft Core Paper: 10**

**MINOR PROJECT WORK / TERM WORK**

- Each student will be allotted project work for four credits. The department council will allot the guide and finalize the topic. Workload for project work guidance is 2 hours per batch of eight students per week.

**Soft Core Paper: 11**

**Operations Research**

- Mathematical Economics attempts to codify in a precise, logical and rigorous manner the various cause and effect sequences inherent in the vast and often chaotic body of economic theory. It is the forerunner of econometrics that deals with the quantification aspect of these sequences. Just as Descartes succeeded in converting Euclidean geometry into a precise science known as Analytical Geometry, mathematical economists have attempted not just to revise economic theory but also to practically re-write it in a precise and scientific manner. This extensive revision using various types of optimization methods implies that non-mathematical economists have a limited scope for keeping pace with the break-through being affected in the frontier areas of economics using mathematical tools of analysis, and thus this course is devised with an explicit purpose of providing students with an exposure to these optimization methods which have succeeded in elevating economics to the level almost of a science.

**Soft Core Paper:12**

**Executive Communication and Soft Skill**

- 1. To sharpen the Analytical, written, non-verbal, Spoken Communication and interpersonal Skills essential in organizations involving Decision making and implementation.
- 2. To demonstrate good team work and negotiation skills.

**Open Elective Paper: 02 ( Optional)**

**Economics of Globalization**

- The paper intends to introduce the fundamentals of Economic Globalisation to open elective students under CBCS. Since globalisation is all pervasive, there is no economic activity which is not affected by globalisation. Hence, it naturally attracts the attention of students from different disciplines. Globalisation has multiple dimensions. However, since this open elective is being offered by the Department of Economics, the focus is on the economic dimension of globalisation. This not only enables a comprehensive understanding of globalisation issues from cross – cutting disciplines but also ensures a new thinking in formulating the strategies to face the challenges of globalisation.

**Course: PG Chemistry**

**I Semester:**

**Fundamentals of Chemical Analysis**

- This course in analytical chemistry will make students to get emphasized on quantitative and

qualitative methods of analysis with relevant equilibrium chemistry.

- In this course content he will develop the ideas with the fundamental aspects in analytical chemistry.
- Students will be enriched with topics such as experimental design, sampling, calibration strategies, standardization, optimization, statistics, and the validation of experimental results.
- This course will build the interest in students in developing good experimental protocols, and in interpreting results.
- Analytical knowledge for the quantitative analysis of various samples of different origin is best sowed among the students under titrimetric aspects.
- The statistical aspects are learnt and from which the spirit of assessing the results will be enhanced.
- Method of development and validation features will become familiar, so that they will become outstanding basement for their career in various industries.
- Students will earn 3 credits upon successful completion of this course.
- Describe the meaning of applied analysis
- Make out the causes for air pollution and water pollution, and knowledge an control devices or techniques or processes of such pollutions
- Understand the importance of food and drug analysis
- Gives knowledge to choose methodologies for the preliminary and complete analysis of air, water, food and drugs
- Adopt suitable analytical technique for sampling and analysis of air, water, food and drug samples for analysis
- Describe suitable analytical method for the determination of required analysts /components of the sample provided
- After completing this course student will gain 3 credits into his/her account.

### **Inorganic chemistry-I**

- The students will be able to acquire the skills for molecular symmetry and group theory and interpretation in rather simple point groups.
- The student will get idea about representation of groups and applications of group theory.
- Demonstrate an understanding of the basic principles of periodicity.
- This course in inorganic chemistry will make students to illustrate an understanding of the principles of molecular orbital theory.
- These topics will build the interest in students in understanding of VSEPR theory.
- Demonstrate an understanding of the basic principles of acid – base chemistry and non – aqueous solvents.
- From this course the student will be competent in designing synthesis of higher boranes and extraction of lanthanides and actinides.
- Demonstrate an understanding of chemistry of ‘d’ and ‘f’ block elements.
- Students will earn 3 credits upon successful completion of this course.

### **Stereochemistry; Reaction mechanisms and Heterocyclic Chemistry**

- This course will enable the students to learn the deeper concepts of stereochemistry, rearrangements as well as heterocyclic chemistry.

- Assigning the configuration and conformation for an organic molecule is highly important since the property of the molecule depends on these concepts. Hence, learning these will make students to gain more knowledge about the chiral carbon atoms, isomerism, symmetry concepts etc.
- Conversion of reactants into products sometimes involves the migration of atoms/groups and that will be studied under Molecular Rearrangements, which will enable a student acquire different concepts of migration and also the fate of the reaction.
- In nature, more than 90% of the compounds are heterocyclic in nature. They present numerous applications in different branches.
- A student, by studying this will be able to classify the different categories of heterocyclics, their preparation and also applications.
- Students will be tailor-made for careers in pharmaceutical industries.
- Students will earn 3 credits upon successful completion of this course.
- Identify the reactivity of the molecules
- After completing this course student will gain 2 credits into his/her account.

### **Physical Chemistry -I**

- This course in physical chemistry will make students to get knowledge on the basic fundamental concepts of physical chemistry i.e, Thermodynamics, Chemical kinetics and Electrochemistry.
- Learning this course content will develop the ideas with the fundamental aspects in physical chemistry.
- After studying this unit students will get explored, with the topics such as Second law of thermodynamics, partial molar properties, fugacity, statistical thermodynamics, kinetics of fast reaction, some of the important theories of kinetics, isotopic effects, batteries construction and working, liquid junction potential etc.
- Applying the reaction rate for simple, complex reaction and also fast reaction is covered in this unit.
- A brief description about the primary and secondary batteries is explained with the suitable examples; by this students will get an idea about the batteries which they are using in their daily life.
- Students will earn 3 credits upon successful completion of this course.

### **Analytical chemistry practical**

- Student will earn 4 credits upon successful completion of this course.
- Student will evolve as a analyst with various classical and simple instrumental skills
- Students will obtain the knowledge for selection of analytical methods with suitable technique being adopted for the analysis different samples like, water, laboratory chemicals and reagents, body fluids such as urine etc.
- Student will be able to distinguish classical and instrumental methods.
- Student will get the ability to propose and conduct experiment for quantification of individual analyses.

### **Inorganic chemistry practical**

- Student will have knowledge to prepare reagents required for analysis.
- Student will be more informative in putting the schemes for semi-micro qualitative analysis.



- Student will get the ability to propose and conduct experiment for quantitative analysis of inorganic samples such as ore, metals, complexes mixture of metals and complexes etc.
- Students will obtain the skills for scientific and relevant documentation and risk and security assessment.
- Student will earn **4 credits** upon successful completion of this course.

### **Organic chemistry practical**

- Student will earn 4 credits upon successful completion of this course.
- Students will evolve as an organic chemist with various classical and simple preparation skills.
- Student will obtain the knowledge of different reactions, conditions to be maintained, precautions to be exercised before/during/after the reaction.
- Students will learn qualitative analysis and will be able to separate a mixture of two components and systematically analyse them so as to identify to which class does the organic compounds belongs to.
- Students gain confidence / expertise to work in Pharma Industry.

### **Applied Analysis I**

After completion of this course student will be able to

- Describe the meaning of applied analysis
- Make out the causes for air pollution and water pollution, and knowledge an control devices or techniques or processes of such pollutions
- Understand the importance of food and drug analysis
- Acquire the knowledge to choose methodologies for the preliminary and complete analysis of air, water, food and drugs
- Adopt suitable analytical technique for sampling and analysis of air, water, food and drug samples for analysis
- Describe suitable analytical method for the determination of required analytes/components of the sample provided

### **Frontiers in Inorganic Chemistry**

After completion of this course student will be able to

- The students will be able to know the significance of materials chemistry
- Students will acquire knowledge of various characterization techniques
- Students will obtain the skills for the inorganic pigments.
- After completing this course student will gain **2 credits** into his/her account.

### **Reaction Mechanism**

After completion of this course, a student will be able to

- Identify the reactivity of the molecules
- Fate of the reaction by knowing the thermodynamic and kinetic requirements.
- Students learn to identify the products, structure, stability & Mechanistic pathway of different reactions.
- Basics of organic chemistry lie in knowing the nucleophilic, electrophilic and elimination reactions. Each of these will have different mechanistic route and a student will learn these concepts and hence will help in the future.
- After completing this course student will gain 2 credits into his/her account.



## **Solid State Chemistry and Chemistry of Nano Materials**

- Student will earn 2 credits after successful completion of this course. Besides the following are the outcomes a student is emerged with:
- Nowadays nanotechnology is considered as an important branch in which many research is going on.
- Students will be educated about the fundamentals of nano materials and the methods by which nano particle is synthesised.
- Semiconductors, superconductors, X-ray crystallography are the important concepts that is learnt in this unit.
- After completing this course student will gain 2 credits into his/her account

## **II Semester:**

### **Separation Techniques**

- Knowledge of various physico-chemical separation techniques with principle, mechanism of separation, materials or compounds or analyses in the sample to be separated.
- Built in ability to select appropriate separation technique for intended problem.
- Capacity and scope of the built knowledge to separate analyses in multi-component mixtures.
- Ability to design separation procedure for the effective solution of intended problem.
- Enriched knowledge on method development and validation to propose new analytical separation method.
- Students will acquire the ability to describe the instrumentation required for the various separation techniques and their associated operating principles.
- Student will reach a stage to understand the significance, quality, and limitations of the results produced by the various separation techniques.
- Ability for execution of separation procedure and troubleshooting during the separation.
- To get deposited with 3 credits into student's account of programme as a result of completion of the course.

### **Advanced coordination chemistry**

- Students acquire knowledge for demonstration and understanding of nomenclature and isomerism of coordination compounds.
- Illustrate an understanding of the principles of theories of metal-ligand bond.
- Demonstrate an understanding of spectra of coordination compounds.
- Student will analyze the spectra of transition metal ions.
- Student will analyze MOT, CFT, Orgel and Tanabe – Sugano diagrams.
- Interpret the stability of complexes.
- Understands the substitution reactions in transition metal complexes.
- To get deposited with 3 credits into student's account of programme as a result of completion of the course.

### **Reagents in Organic Synthesis; Photochemistry and Pericyclic Reactions**

- Reagents play a key role in organic chemistry. Fate of the reaction highly depends on the role of the reagents as they readily involve the conversion of reactants into products.
- Hence, a student will be able to judge which reagent is needed for a particular type of reaction.

- He will also learn the mechanism by which reagent/s work during the reaction.
- Environmental friendly reactions are on the rise since solvents/harsh reaction conditions/reagents is harming the environment. Thus, studying of Green Synthesis will guide the students about the choice of solvents/reagents/catalysts that needs be incorporated for the reactions.
- Generally, reactions are carried under thermal or photochemical conditions. Sometimes, thermal reactions destroy the compounds and hence photochemical reactions are best suited in such cases. Thus, students can adopt photochemistry for such failures which will enable them to carry out different photochemical reactions.
- Students will also be able to judge the stereochemistry of the products obtained.
- On the other hand, pericyclic reactions are highly concerned since they guide the chemists through which path the reaction is taking place.
- 3 Credits will be deposited into student's account as a result of completion of the course.

### **Quantum chemistry and molecular spectroscopy:**

- Students will be able to differentiate the principles of microwave, vibration, Raman, UV-Visible, NQR and Mossbauer spectroscopic techniques.
- Student will have idea about nature of interaction of electromagnetic radiation with matter.
- After studying quantum chemistry students will get an idea about the fundamental concepts like black body radiation, photoelectric effect, Schrodinger wave equation and application, etc.
- Knowledge on calculation of ionization energy and binding energy.
- To get deposited with 3 credits into student's account of programme as a result of completion of the course.

### **Analytical chemistry practical:**

- Student will earn 4 credits upon successful completion of this course.
- Student will evolve as a analyst with various classical and simple instrumental skills
- Students will obtain the knowledge for selection of analytical methods with suitable technique being adopted for the analysis different samples like, water, laboratory chemicals and reagents, body fluids such as urine etc.
- Student will be able to distinguish classical and instrumental methods.
- Students will get the ability to propose and conduct experiment for quantification of individual analysts.
- Students will obtain the skills for the scientific and relevant documentation and risk and security assessment

### **Inorganic chemistry practical:**

- Student will prepare reagents and operate modern inorganic instrumentation.
- Student will evolve as an analyst with various qualitative, quantitative and instrumental methods.
- Student will get the ability to propose and conduct experiment for quantification of individual analytes.
- Students will obtain the skills for the scientific and relevant documentation and risk and security assessment.
- Student will earn **4 credits** upon successful completion of this course.

### **Organic chemistry practical:**

- Student will evolve as an organic chemist with various classical and simple preparation skills.

- Student will obtain the knowledge of different reactions, conditions to be maintained, precautions to be exercised before/during/after the reaction.
- Student will learn qualitative analysis and will be able to separate a mixture of two components and systematically analyse them so as to identify to which class does the organic compounds belong to.
- Students gain confidence to set up reactions individually either in the pharma industry or for the Research.
- Student will earn 4 credits upon successful completion of this course.

#### **Physical chemistry practical:**

- Student will get an idea about handling the instruments like UV-Visible Spectrophotometer, Potentiometer, pH meter etc.
- Students will be able to determine the concentration of the species in given solutions.
- Student will have distinction between different physical properties of substances or compounds
- Student will earn 4 credits upon successful completion of this course.

### **III Semester**

#### **Instrumental Methods of Analysis:**

- Students will gain the knowledge on the differences between classical and instrumental methods of chemical analysis.
- Students will be able to explain different types of Instrumental methods employed in chemical analysis.
- Students are developed with the understanding of the range and theories of instrumental methods available in analytical chemistry.
- Students can make out the clear distinctions among spectrometric, electro-analytical, thermal and microscopic methods with respect principle, materials and procedural or operational aspects in each.
- Students gain the knowledge pertaining to the appropriate instrumental technique to be employed for the successful analysis of complex mixtures.
- Obtain the practical experience in selected instrumental methods of analysis.
- Develop the skills on instrumental methods for planning, developing, conducting, reviewing, conducting experiments and reporting results.
- Student account will be filled with 3 credits for completing this course.

#### **Spectroscopy**

- Student will be able to differentiate the principles of microwave, vibration, Raman, UV-Visible, NQR and Mossbauer spectroscopic techniques.
- Student will have idea about nature of interaction of electromagnetic radiation with matter.
- Knowledge on calculation of ionization energy and binding energy by simple expressions will be built in student.
- Identification of the unknown compounds would be struggling, had spectroscopy was not existing. Students will be able to apply their minds to come at a preliminary judgement about the structure of the compounds.
- Students will study different types of transitions that are involved in UV-Vis spectroscopy.
- A student will be able to assign the wavelength of the organic compounds (different classes).

- By studying IR spectroscopy, students will learn which class of functional group will be present in the molecules. Also they learn the different factors that affect group frequencies and also the band shapes.
- To get deposited with 3 credits into student's account
- of programme as a result of completion of the course.

### **Inorganic chemistry-II**

Student will be treated as enriched with resource after the completion of this course with the following outcomes to himself or herself:

- Students gain the knowledge from basic concepts of ionic solids, modern concept of acids and bases.
- Demonstrate and understanding of the basic principles of acid-base chemistry and non-aqueous solvents.
- Student will acquire the knowledge to handle homogeneous and heterogeneous catalysis.
- This course will earn **2 credits** into each student's account

### **Biophysical chemistry and polymers:**

- Student will be interpretative to electrophoresis, kinetics of polymerization, phase transition in polymer, polymers in solution etc, with respect to their principles and other aspects.
- Students will be able to clearly distinguish different types of electrophoresis like free electrophoresis, zone electrophoresis, gel electrophoresis.
- Idea on fundamentals of polymers, degree of polymerization and classification of polymers will be composed in the mind of student.
- Students will have talent and knowledge on different methods for the classification of compounds based on their molecular weights.
- Student account will be filled with 3 credits for completing this course.

### **OPEN ELECTIVE**

#### **Selected Topics in Chemistry**

- A non-chemistry student's account will be obtained 4 credits into account after completing this course.
- Student will have the knowledge on importance of chemistry or different branches of chemistry along with their unheard significant aspects
- Students will have fundamental knowledge of use of chemistry in human's daily life
- Students will have their preachment of chemistry from its different special branches
- Students will get the knowledge to apply their skills in chemistry in their daily lives.
- Students will have capability to predict the arrangements of components of an object or compound or matter

#### **Analytical chemistry practical**

- Student is exposed to get the experience of analysis of various complex mixtures by following multistep reactions.
- Student will acquire the knowledge to handle instruments and to overcome the general problems arises during the analysis.

- Students will be an industry-ready resource with the skills required for sampling, analytical and interpretation and presentation of results.
- Adequate knowledge on literature search for developed analytical methods.
- Student will earn 4 credits to the account of himself/herself.

#### **Inorganic chemistry practical**

- Student is exposed to get the experience of analysis of various complex mixtures by multistep reactions.
- Students will acquire the knowledge to handle instruments and to overcome the general problems arises during the analysis.
- Student will be an industry ready resource with the skills required for sampling, analytical and interpretation and presentation of results.
- Adequate knowledge on literature search for developed preparative methods.
- To make the student conversant with the synthesis and characterization of complexes.
- Student will earn **4 credits** to the account of himself/herself.

#### **Organic chemistry practical**

- Student is exposed to get the experience on multistep synthesis.
- Here, a student will learn different kinds of reactions under Multistep Synthesis which will enable them to be placed in Research & Development department of pharma industries.
- Students will have learnt isolation of natural products, their preliminary identification and separation.
- Students will acquire knowledge of the various estimations like sugars, enol content, ketones, nitro protein etc. which help them to be emerged as organic chemists.
- Student will earn 4 credits to the account.

#### **Physical chemistry practical**

- Student will acquire the knowledge to handle instruments and to overcome the general problems arises during the analysis.
- Concepts of rate constants, energy of activation, order of the reaction and also thermodynamics parameters will become familiar in students mind.
- Students will have the knowledge to handle the instruments like UV-Visible Spectrophotometer, Potentiometer, pH meter etc. Which will be useful in future research work. or handling instruments in industries.
- Student will earn 4 credits to the account of himself/herself

### **IV Semester**

#### **Bioinorganic chemistry:**

##### **Enriched with the knowledge of**

- Students will get knowledge on structural aspects various bio molecules and learn characteristic features of bioenergetics.
- Biochemistry of minerals & Vitamins & their importance biological system
- Transport systems , electron transport complexes & redox enzymes

Student account will be filled with 3 credits for completing this course

#### **Advanced Physical Chemistry**

#### **Kinetics and Thermodynamics of Polymerization**

Student will be treated as enriched resource after the completion of this course with the following outcomes to himself or herself:

- Main topics that are discussed in this unit are copolymerization, conducting polymers, solid state chemistry, photophysical kinetics, photodegradation, hydrogen over voltage, oxygen overvoltage, corrosion etc
- Students will be able to differentiate between different types of overvoltage & different methods for the determination of molecular weight of the polymer.
- Brief explanation about conducting polymers
- A brief explanation of polymer degradation stability and environmental issues

### **Applied Analysis II**

Student will earn 2 credits after successful completion of this course. Besides the following are the outcomes a student is emerged with:

- Meaning, laws and techniques of chemical kinetics
- Importance of chemical kinetics in enzyme catalysed and non-enzyme catalysed reactions to the analysis of samples for quantification of analyte
- Knowledge on automated and automatic methods of analysis with choice on instrumental methods
- Clear distinction ability between conventional and radio-chemical methods
- Type of samples subjected to radio-chemical analysis and radioimmunoassay.

### **Applied Analysis III**

Student will earn 2 credits after successful completion of this course. Besides the following are the outcomes a student is emerged with:

- Meaning, laws and techniques of chemical kinetics
- Importance of chemical kinetics in enzyme catalysed and non-enzyme catalysed reactions to the analysis of samples for quantification of analyte
- Knowledge on automated and automatic methods of analysis with choice on instrumental methods
- Learns to distinguish between conventional and radio-chemical methods
- Type of samples subjected to radio-chemical analysis and radioimmunoassay.

### **Solid State Chemistry and Chemistry of Nano Materials**

- Student will earn 2 credits after successful completion of this course. Besides the following are the outcomes a student is emerged with:
- Now a days nanotechnology is considered as an important branch in which many research is going on.
- Students will be educated about the fundamentals of nano materials and the methods by which nano particle is synthesised.
- Semiconductors, superconductors, X-ray crystallography are the important concepts that is learnt in this unit.
- After completing this course student will gain 2 credits into his/her account

### **Retrosynthesis and Organometallic Chemistry**

Student will be treated as enriched resource after the completion of this course with the following outcomes:

- Knowledge of protection and deprotection in organic synthesis.
- Acquisition of different named reactions which are highly useful for competitive exams and interviews.
- Students will be exposed to disconnection approach, their principles and terminologies.
- Students will be able to learn the retro synthesis of different complex organic molecules.
- This course will earn 2 credits into each student's account.

### **Biomolecules and Natural Products**

Student will earn 2 credits after successful completion of this course. Besides, the following are the outcomes a student is emerged with:

- Knowing amino acids, peptides, proteins: their structure, function and properties.
- Students will know the structural determination of the proteins which are called as energy of the body.
- Students will learn about the chemistry lying behind the heredity.

Students will also learn the nomenclature, classification and biological importance of other natural products like carbohydrates, lipids, terpenoids and steroids.

### **Dissertation or Project Work**

- Student will get earned with 4 credits after completion of this course.
- Student will be able to carry out literature survey on the problem to be solved
- Student will be made to learn and follow suitable research methodologies to propose and to perform experiment individually along with skills to interpret and present results and consequently to prepare final report of the problem under taken to solve
- Student will attain the state of ability to take up research work
- Better knowledge is acquired by a student from research articles, patents, book chapters or books on relevant research problem
- Students will obtain the skills of writing research reports in the form of articles or thesis.

## **PG: Commerce**

### **I Semester**

#### **HC 01: ACCOUNTING THEORY AND PRACTICE**

- Gain in depth knowledge on accounting theory and its applications

#### **HC 02: ADVANCED FINANCIAL MANAGEMENT**

- Ability to evaluate capital projects in holistic manner

#### **HC03: ADVANCED MARKETING MANAGEMENT**

- Acquaint with advanced aspects of marketing management including strategy making

#### **HC04: ORGANIZATIONAL BEHAVIOUR**

- Gain thorough knowledge on analysis of behavioral pattern of HR in the organization

#### **SC01: STATISTICS FOR BUSINESS DECISIONS**

- Ability to analyze the business problem and finding solutions by using statistical tools

#### **SC02: BUSINESS COMMUNICATION**

- Honed up communication skills to deliver effective leadership in challenging environment.

### **II Semester**

#### **HC 05: CAPITAL MARKET INSTRUMENTS**



- Ability to analyze the volatility in capital markets owing to changes in port folio of instruments.

### **HC06: ADVANCED HUMAN RESOURCE MANAGEMENT**

- Acquaint with contemporary HRM issues so that challenges are easily faced.

### **HC: 07 -OPERATIONS RESEARCH**

- Acquaint with use of quantity to models while decisions pertain to business problems.

### **HC 08: MARGINAL COSTING AND DECISION MAKING**

- Acquaint with application of marginal costing for decision making in business scenario

### **SC03: MICRO FINANCE**

- Comprehend the role of micro financing in rural development and also significance of SHGs

### **SC 04 : ENTERPRISE RESOURCE PLANNING (ERP)**

- Acquaint with ERP project management and ability to handle ERP

### **III Semester**

### **HC 09: BUSINESS RESEARCH METHODS**

- Ability to take up independently the business research work

### **HC 10: INTERNATIONAL BUSINESS**

- Acquaint with Macro aspects of International Business and appreciation of practicality in the contemporary situation

### **HC: 11- SECURITY ANALYSIS AND PORFOLIO MANAGEMENT**

- Ability to understand the stack volatilities and changing the port folio of investments for maximizing returns.

### **ELECTIVE01: BUSINESS TAXATION**

#### **PAPER01: CORPORATE TAX LAW AND PRACTICES.**

- Ability to offer consultancy on taxation to the corporate assesseees with reference to advance tax, MAT, returns of income, appeals and revisions

### **ELECTIVE 02: HUMAN RESOURCE MANAGEMENT**

#### **PAPER01: STRATEGIC HUMAN RESOURCE MANAGEMENT**

- Ability to makes strategies in the challenging HRM environment

### **ELECTIVE 03: MARKETING**

#### **PAPER01: MARKETING of SERVICES**

- Ability to understand the concept of service marketing and making strategies for its effectiveness.

### **ELECTIVE 04: BANKING**

#### **PAPER01: BANKING and FINANCIAL SERVICES MANAGEMENT**

- Understanding the banking and financial services thoroughly and making effective strategies for managing the same.

### **ELECTIVE 05: INSURANCE MANAGEMENT**

#### **PAPER01: MANAGEMENT OF LIFE INSURANCE**

- Understanding the life insurance business in detail and advising the insurers and insured about different plans.

### **ELECTIVE 06: FINANCIAL ACCOUNTING**



### **PAPER01: ACCOUNTING FOR SPECIALIZED INSTITUTION**

- Conceptualizing the financial accounting with particular reference to banks, insurance companies, Government funds and hotels.

### **ELECTIVE 07: FINANCIAL MANAGEMENT**

#### **PAPER01: INTERNATIONAL FINANCIAL MANAGEMENT**

- understanding the Financial Management in practice at MNCs and also comprehending factors influencing FM in the international context

### **ELECTIVE 08: COST MANAGEMENT**

#### **PAPER01: STRATEGIC COST MANAGEMENT-1**

- Development of skill in application of cost accounting principles for solutions to business problems

### **OPEN ELECTIVE**

#### **OE 01: FINANCIAL ACCOUNTING**

- Acquainting with basics principles of accounting by non commerce students

### **OPEN ELECTIVE**

#### **OE02: BUSINESS MANAGEMENT**

- understanding the basic concepts of business management by non commerce students

### **OPEN ELECTIVE**

#### **OE03: MANAGEMENT OF NON-PROFIT ORGANISATIONS**

- understanding the basic characteristics of NPOs and their management by non commerce students

### **OPEN ELECTIVE**

#### **OE04: RETAIL BANKING**

- Understanding the concept of retail banking services by non commerce students

### **OPEN ELECTIVE**

#### **OE05: PERSONAL FINANCIAL MANAGEMENT**

- Understanding the scenario of international accounting , IFRS, adjustment of changes in exchange rates and accounting standards

### **FOURTH SEMESTER**

### **HARD CORE**

#### **HC 12: INTERNATIONAL ACCOUNTING**

- Understanding the scenario of international accounting , IFRS, adjustment of changes in exchange rates and accounting standards

#### **HC 13: STRATEGIC MANAGEMENT**

- Ability to make strategies to solve business problems

### **SC07: LEGAL ASPECTS OF BUSINESS**

- Understanding legal environment of business thoroughly

### **SC 08: PROJECT WORK**

- Completing the project work that focuses on business problems and solutions

### **ELECTIVE 01: BUSINESS TAXATION**

#### **PAPER 02: GOODS AND SERVICE TAX AND CUSTOM DUTY**

- Acquainting with GST and Customs Duty and gaining ability to advice business houses on these issues

### **ELECTIVE 02: HUMAN RESOURCE MANAGEMENT**

#### **PAPER02: INTERNATIONAL HUMAN RESOURCE MANAGEMENT**

- Understanding the applications of suitable HRM practices for multinational companies.

### **ELECTIVE 03: MARKETING**

#### **PAPER02: INTERNATIONAL MARKETING**

- Understanding concurrent issues and challenges in international marketing arena and find solutions for the problems.

### **ELECTIVE 04: BANKING**

#### **PAPER02: BANKING TECHNOLOGY**

- Application of appropriate technology in delivery of banking services effectively

### **ELECTIVE 05: INSURANCE MANAGEMENT**

#### **PAPER02: MANAGEMENT OF NON LIFE INSURANCE**

- Understanding different non life insurance businesses and advising on selection of policies.

### **ELECTIVE 06: FINANCIAL ACCOUNTING**

#### **Paper-2: INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)**

- Understanding the IFRS thoroughly.

### **ELECTIVE 07: FINANCIAL MANAGEMENT**

#### **PAPER 02: STRATEGIC FINANCIAL MANAGEMENT**

- Making strategies to achieve buoyancy in FM

### **ELECTIVE 08: COST MANAGEMENT**

#### **PAPER02: STRATEGIC COST MANAGEMENT-2**

- Ability to make strategies in devising cost accounting principles for finding solutions to business problems

#### **Elective Papers: GST-1, GST-2 & Customs Duty (For the academic year 2018-19 only)**

### **ELECTIVE 01: BUSINESS TAXATION.**

#### **PAPER 01: GOODS AND SERVICE TAX**

- Understanding the GST thoroughly and advising business in this regard.

### **ELECTIVE 02: BUSINESS TAXATION.**

#### **PAPER 02: GOODS AND SERVICE TAX AND CUSTOMS DUTY**

- Understanding GST and customs duty and advising business houses.

Students performance, program outcomes are stated and displayed in college website.

## **Programme Content / Outcome (COP)**

### **1. Languages**

#### **A. Functional English**

- I. Enhances practical usage of English language and Improves communication skills in English
- II. Introduces basic grammatical sentence structure and gives knowledge of idioms and phrases in English
- III. Students with good English Vocabulary and Communication skills become readily employable.

#### **B. Functional Hindi**

- I. Enhances practical usage of Hindi language and Improves communication skills in Hindi
- II. Introduces basic grammatical Hindi sentence structure
- III. Acquires sound knowledge of idioms and phrases in Hindi
- IV. Students with good Hindi Vocabulary and Communication skills become readily employable.

#### **C. Proof Reading**

- I. Sharpens the knowledge of proof reading and Highlights the purpose of proof reading
- II. Helps in understanding the importance and purpose of proof reading
- III. Learning copywriting and proof reading symbols make students readily employable.

#### **D. Translation**

- I. Types/purpose of translation
- II. Acquaints different theories of translation
- III. Importance of translation in a multilingual country like India
- IV. Tailor-made for jobs in Press and Publications.

### **2. ARTS**

#### **A. Social Welfare**

- I. Meaning, importance of social welfare and need for social welfare programs in India
- II. Meaning of positive discrimination
- III. Role of government in implementing social welfare schemes
- IV. Students with good knowledge of social welfare concept get good job openings in NGOs and public sectors.

#### **B. Women Studies**

- I. Meaning, importance of women studies and knowledge of gender bias and gender discrimination
- II. Legislative measures to achieve gender equality
- III. Women empowerment as social/political agenda
- IV. Empowered women are sought after in NGOs and Govt. organizations.

#### **C. Rural Development**

- I. Meaning, scope of rural development and Effects of urbanization on rural backwardness
- II. Role of government in implementing rural development schemes

- III. Important legislation in post independence to achieve rural development
- IV. Students with good knowledge of rural development are absorbed in govt. run institutions and private welfare institutions.

#### **D. Good Governance and E-Governance**

- I. Meaning and importance of good governance and Welfare State
- II. Delivering good governance through E-Governance
- III. Effectiveness of E-Governance in achieving the goals of good governance
- IV. Readily employable as PROs in NGOs and Govt. organizations.

#### **E. Photo journalism**

- I. Meaning and scope of photo journalism
- II. Effectiveness of visual representation in communication
- III. Role of paparazzi in effective photo journalism and ethics of photo journalism
- IV. Readily employable in Press and Media.

#### **F. Business journalism and corporate communication**

- I. Meaning and scope of business journalism and corporate communication
- II. Use of language in business journalism
- III. Etiquettes in Corporate communication
- IV. Ensures employment in NGOs and Media.

### **3. SCIENCE**

#### **A. Horticulture**

- I. Gives knowledge of Horticulture and floriculture
- II. Familiarises with the cultivation of flowering and ornamental plants for gardens and floristry.
- III. Ensures Jobs in government / private horticulture departments.

#### **B. Clinical Laboratory Techniques**

- I. Acquaints with elementary knowledge of clinical laboratory.
- II. Familiarises students with different clinical lab tests.
- III. Get employment opportunities in govt./private pathology labs.

#### **C. Women Health and Hygiene**

- I. Introduces the concept of Women health and hygiene.
- II. Readily employable in govt./private hospitals.

#### **D. Animation**

- I. Acquaints with 2D and 3D
- II. Teaches Web and Page designing.
- III. Readily employable in govt./private advertising agencies
- IV. Ensures jobs in film and web industries.

#### **E. Food and Nutrition**

- I. Introduces importance of Nutritional values in food.
- II. Eligible for a regular course in Dietetics.
- III. Employable as dietitian in private clinics and govt. hospitals.

### **4. COMMERCE**

**A. Human Resource Management (HRM)**

- i. To enhance the knowledge of students in Human Resource Management.
- ii. To develop and understanding the behavior of individuals and groups inside the organization.
- iii. To develop theoretical and practical insights and problem-solving capabilities for effectively managing the organizational Process.

**B. MARKETING MANGEMENT**

- i. To acquaint the students with the marketing principles and practices
- ii. To understand the process of marketing in a business firm
- iii. To enable undergraduate students for acquiring knowledge in marketing strategies
- iv. To get knowledge about global marketing strategies.
- v. To enable students for acquiring basic knowledge in marketing research
- vi. To develop basic skills in them to conduct survey researches and case studies.
- vii. To acquaint students about the importance of service marketing.
- viii. It covers aspects like service marketing mix; maintaining service quality
- ix. To familiarize the undergraduate students the basic concepts of sales management.
- x. To enable undergraduate students for acquiring knowledge about Communication process of advertising.
- xi. This course aims at acquainting student with the operations of marketing in international environment.
- xii. To enable students for acquiring knowledge about global agencies

**C. FINANCIAL MANGEMENT**

- i. To help the students in understanding the basics of financial management
- ii. To familiarize the concepts of financial services of India.
- iii. To help the students in understanding the concept of Indian financial system.
- iv. To help the students in understanding the concepts of cost of capital, capital structure, capital budgeting and dividend policy decision
- v. To help the students in understanding the concept of working capital management.
- vi. To help the students in understanding the concept of Financial statement analysis.

**D. INSURANCE MANAGEMENT**

- i. To enable the students to acquire the knowledge of the concept of insurance and fundamentals of risk.
- ii. To acquaint the students on different aspects of life insurance and its plans.
- iii. To familiarize the students with the practical aspects of general insurance practices and procedures.
- iv. To enable the students to understand the management of Insurance Business in India.
- v. To give the students an idea about principles and concepts of marketing of insurance
- vi. To acquaint the students regarding accounting in insurance and valuing the insurance policies.

**E. RETAIL MANAGEMENT**

- i. To familiarize the students about functions of management
- ii. To make the students to understand the important concepts of marketing
- iii. To familiarize the students about functions of a retailer.

- iv. To familiarize the students about retailing in India and International retailing
- v. To make the students to understand the importance of retail site location.
- vi. To familiarize the students about store design, retail merchandising and merchandise plan.
- vii. To familiarize the students about management of retail business.
- viii. To familiarize the students about retail infrastructure.
- ix. To familiarize the students to understand the concept of CRM & how it applies to the retail sector.
- x. To familiarize the students about CRM Strategies in retailing.
- xi. To familiarize the students to understand the cases relating to retail marketing.
- xii. To familiarize the students about recent trends, issues and challenges in retail marketing.

#### **F. FOREIGN TRADE**

- i. This course helps in understanding foreign trade.
- ii. This course helps in understanding export-import procedure in foreign trade.
- iii. This course helps in understanding Export Management.
- iv. To acquaint the students on correct balance of payment.
- v. To expose students to acquire skills in Foreign Trade Development and Regulation Act.
- vi. This course helps in understanding Import Regulation and Financing.
- vii. To acquaint the students on foreign exchange rate
- viii. To understand the different types of exchange rates

#### **G. AUDITING**

- i. To impart knowledge pertaining to basic concepts of audit, procedure, principles & techniques
- ii. To enable the students to understand the system of internal control in an organization.
- iii. To gain expert knowledge of current auditing practices and procedures and apply them in auditing engagements.
- iv. To expose the students to computerized auditing.
- v. To enable the students to understand the qualification duties and role of auditors.
- vi. To acquaint the students with the special audit of various institutions.

#### **H. INTERNATIONAL FINANCIAL REPORTING STANDARDS**

- i. To equip the students with the essential knowledge of International Financial Reporting Standards and its Practical application.
- ii. To equip the students with the essential knowledge of International Financial Reporting Standards and its Practical application.
- iii. To equip the students with the essential knowledge of International Financial Reporting Standards and its Practical application.
- iv. To equip the students with the essential knowledge of International Financial Reporting Standards and its Practical application.

2.6.2 Pass percentage of students				
Program me Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass Percentage
UG	BA	67	65	97.01
	BSc	163	146	90
	BCom	219	214	98
	BBM	42	39	93
	BCA	62	62	100
PG	MA (Eco)	39	39	100
	MCom	59	59	100
	MSc	38	38	100

## 2.7 Student Satisfaction Survey

2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

Since students are considered as primary stakeholders, feedback from student is obtained every year, generally on the Graduates' Day. A well designed feedback form is prepared by the college for the purpose. The feedback form elicit responses from students on a range of issues which include, the usefulness of the course, competency of the teachers and facilities made available to students. The feedback thus obtained is assessed under SPSS system, which helps the college to plug its weaknesses.

Sl No	Variable	Mean	Std. Deviation	P value	Total agree (%)
<b>Overall Rating</b>					
1	Academic Content	4.3095	.53720	.000	96.4
2	Evaluation – Fairness	4.2500	.59869	.000	94.0
3	Interaction with Faculty	4.1429	.77836	.000	85.7
4	Interaction with Administration	4.0714	.75707	.000	83.4
5	Library Facilities	4.2619	.66076	.000	96.4
6	Computer Facilities	4.1190	.70120	.000	89.0
7	Hostel Facilities	3.8571	.76273	.000	79.8
8	Recreation Facilities	3.9881	.82862	.000	84.5
9	ECA	4.0476	.63823	.000	89.2
10	Career Counseling	4.1786	.67949	.000	90.5
11	Sports Facilities	4.0476	.65684	.000	89.2

The above table reflects students' contentment on overall institutional performance. Student Satisfaction Survey is generally placed before IQAC, Academic Council and Governing Body meetings. The details and results of SSS are uploaded in college website.



CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION				
3.1 Promotion of Research and Facilities				
3.1.1 The institution provides seed money to its teachers for research, Yes, if yes give details.				
Research, as an innovative activity, is being continuously encouraged by the college. The college supports the requirements of the researchers by meeting the travelling and others expenditure involved in preparation, presentation and submission of project proposals. All other incidental funding, if any, are met by the college. Researchers are also given leave, without break up service, to finalize and submit dissertation.				
The institution’s library is partially digitized and completely automated. The library provides INFLIBNET and OPAC facilities through which members of teaching faculty and Research Scholars can access umpteen numbers of books. All Research Scholars and Research supervisors are provided with password through which they access books and information required by them.				
Name of the teacher getting seed money		The amount of seed money (in Rs.)	Year of receiving grant	Duration of the grant
Dr. Rechanna		138017	December 2012	-
Dr. K. S. Rajashekhar		21000	December 2017	-
3.1.2 Teachers awarded National/International fellowship for advanced studies/ research during the year				
	Name of the teacher awarded the fellowship	Name of the Award	Date of Award	Awarding Agency
National	Nil			
International	Nil			
3.2 Resource Mobilization for Research				
3.2.1 Research funds sanctioned and received from various agencies, industry and other organisations				
Nature of the Project	Duration	Name of the funding Agency	Total grant sanctioned	Amount received during the year
Major projects	-	-	-	-
Minor Projects	21 Months	UGC	110000	60, 000
Interdisciplinary Projects	-	-	-	-
Industry sponsored Projects	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students Research Projects (other than compulsory by the College)	4 months (11 Projects)	-	-	-
International Projects	-	-	-	-
Any other(Specify)	-	-	-	-
Total			110000	60000



3.2.2 Number of ongoing research projects per teacher funded by government and non-government agencies during the years
1: 121

### 3.3 Innovation Ecosystem

#### 3.3.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of Workshop/Seminar	Name of the Dept.	Date(s)
GST	Management	05.07.2017
"Implementation of GST: Benefits & Challenges"	College	10.08.2017 & 11.08.2017
Soft Skills	IQAC	01.09.2017
Awareness program on Entrepreneurship	Placement Cell	12.12.2017
Symposium on Central & State Budget 2018-19	Economics (UG & PG)	21.02.2018
Harnessing the Potentialities of Teachers for Stakeholders' Delight	IQAC	03.03.2018
Two-Day Extension Lecture Programme in Chemistry	PG Dept. of Chemistry	08.03.2018 & 09.03.2018

#### 3.3.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
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Nil

#### 3.3.3 No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored by
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Nil

Name of the Start-up	Nature of Start-up	Date of commencement
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Nil

### 3.4 Research Publications and Awards

#### 3.4.1 Ph. Ds awarded during the year

Name of the Department	No. of Ph. Ds Awarded
Kannada	01
Botany	01
Chemistry	01

3.4.2 Research Publications in the Journals notified on UGC website during the year						
	Department	No. of Publication	Average Impact Factor, if any			
National	Botany	02	-			
	Kannada	01				
	English	01				
	PG Chemistry	01				
	Chemistry	03				
	History	01				
International	PG Chemistry	03	2.08			
	PG Commerce	02	5.76			
	Commerce	04	5.87			
	Botany	01	-			
	Chemistry	01	3.05			
3.4.3 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year						
Department		No. of publication				
History		01				
3.4.4 Patents published/awarded during the year						
Patent Details	Patent status Published/ Filed	Patent Number	Date of Award			
Nil						
3.4.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index						
Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
Synthesis of isoxazoles via, 1, 3 –Dipolar cycloaddition reactions: pharmacological screening for their antioxidant and antimicrobial activities	Dr. D.M. Lokeshwari	open access international journal	2017	-		NA
The effect of Cesium Aluminate Nanofiller on Optical properties of Poly Vinyl Pyrolidone Nanocomposite Films	Dr. B. S. Madhukar,	Polymer - Plastics Technology and Engineering (Taylor & Francis).	2017	-	IISc, Bengaluru	NA
Labour Landscaping for Sustainable Agriculture Development – An Empirical Study of Agriculture Labourers in Chamarajanagar District	Dr. K. V. Suresha	Exclusive Management Research (IJEMR)	2017	-	CCI, Mysuru	

Analysis of High – Frequency Trading at National Stock Exchange of India	Dr. K. V. Suresha	<i>JSS Research Foundation</i>	2017	-	SJCMS, Mysuru	
A Study on Perception of Organic Farmers towards Organic Farming in Mandya District	Dr. Rechanna	<i>Journal of Emerging Technologies and Innovative Research (JETIR)</i>	2017	-	SDMIM, Mysuru	
“An Analysis of Socio Economic Background of Organic Farmers: A study with special Reference to Mandya District”		<i>Online International Interdisciplinary Research Journal</i>	2017	-	SJCMS, Mysuru	

#### 3.4.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
Potential Anti – Tumor and Anti – Inflammatory Activity of Six Mistletoe Plants in the family viscaceae present in western Ghats, India	Dr. G. R. Shivamurthy	<i>Pharmacy and Pharmaceutical Sciences,</i>	2017	-		IISc, Bengaluru

#### 3.4.7 Faculty participation in Seminars/Conferences and Symposia during the year :

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops	-	8	4	-
Presented papers	5	25	2	-
Resource Persons	-	-	2	10

### 3.5 Consultancy

#### 3.5.1 Revenue generated from Consultancy during the year

Name of the Consultant(s) department	Name of Consultancy project	Consulting / Sponsoring Agency	Revenue generated (amount in rupees)
Botany	Vermi Compost	Botany Department	3000
Chemistry	Soil Testing	Krishi Vijnyan Kendra, Suttur	550
Commerce	Personal income tax	Commerce Department	Honorary
Botany	Taxonomy	Dr. G. R. Shivamurthy	Honorary

#### 3.5.2 Revenue generated from Corporate Training by the institution during the year

Name of the Consultant(s) & Department	Title of the Programme	Agency seeking training	Revenue generated (amount in rupees)	Number of trainees
Nil				

<b>3.6 Extension Activities</b>						
3.6.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year						
Title of the Activities		Organising unit/ agency/ collaborating agency	Number of teachers <b>co-ordinated</b> in such activities	Number of students participated in such activities		
Annual NSS Camp		NSS Unit	10	100		
Tree planting		NSS Unit	22	123		
Basic Leadership Camp (BLC)		NCC Unit	1	5		
Combined Annual Training Camp (CATC)		NCC Unit	-	20		
Talsainik Camp (TSC)		NCC Unit	-	5		
Advance Leadership Camp (ALC)		NCC Unit	-	1		
Blood Donation Camp		YRC Unit	20	100		
Visit to old age home		YRC Unit	85	22		
3.6.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year						
Name of the Activity		Award/recognition	Awarding bodies	No. of Students benefited		
Nil						
3.6.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year						
Name of the scheme		Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers <b>co-ordinated</b> such activities	Number of students participated in such activities	
'Save River'		ISHA Foundation, Coimbatore	Extension Activity	10	500	
<b>3.7 Collaborations</b>						
3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year						
Nature of Activity		Participant	Source of financial support	Duration		
Collaborative Research		3	Nil	6 months		
3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year						
Nature of linkage		Title of the linkage		Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	Participant
Research		Facilitating research activities through JSS Research Foundation leading to award of Doctoral degree		JSS Research Foundation, Mysuru JSS Technical Institutions Campus Manasagangotri, Mysore.	5 years	<b>20</b>
Project Work		Field study & Report		Premier business Houses	December 2017 – April 2018	<b>11</b>

3.7.3 MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year			
Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs
JSS Research Foundation	10.08.2006	To carry out research activities under the supervision of recognized guides leading towards Doctoral degree	04 faculty 20 Research Scholars
Krishi Vijnyana Kendra, Suttur	13.01.2016	To carry out soil testing for the benefit of those who are interested in Horticulture and Floriculture	05 faculty 94 students
DoS in Communication Journalism, UoM, Mysuru	04.12.2017	To organize special lectures by distinguished scholars from abroad, who visit the department.	05 faculty 88 students

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES						
4.1 Physical Facilities						
4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year						
Budget allocated for infrastructure augmentation			Budget utilized for infrastructure development			
5418558			8261510			
4.1.2 Details of augmentation in infrastructure facilities during the year						
Facilities			Existing		Newly added	
Campus area			8 acres		-	
Class rooms			37		-	
Laboratories			20		-	
Seminar Halls			02		-	
Classrooms with LCD facilities			12		1	
Classrooms with Wi-Fi/ LAN			23			
Seminar halls with ICT facilities			02		-	
Video Centre			01		-	
No. of important equipments purchased (≥ 1-0 lakh) during the current year.			2		1	
Value of the equipment purchased during the year (Rs. in Lakhs)			115.00		6.58	
Others			-		-	
4.2 Library as a Learning Resource						
4.2.1 Library is automated {Integrated Library Management System (ILMS)}						
Name of the ILMS software		Nature of automation (fully or partially)		Version		Year of automation
Newgenlib		Fully automated		Commercial		2008
4.2.1 Library Services:						
	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	23268	3497337	566	2,16,952	23834	37,14,289
Reference Books	18562	4003865	347	145161	18909	41,49,026
Total	41830	7501202	913	3,62,113	42743	78,63,315
e-Books	Through Infflibnet					
e-Journals	Through Infflibnet					
Journals	109	127514	21	6000	128	1,33,048
Digital Database	-	-				
CD & Video	610	-	-	-	-	-
Library automation	01	-	-	-	-	65,000
Weeding (Hard & Soft)	Nil					
Others (specify)	100 years old news papers, 3000 back volumes of journals					

4.2.2 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc									
Name of the teacher	Name of the module			Platform on which module is developed			Date of launching e - content		
Nil									
<b>4.3 IT Infrastructure</b>									
4.3.1 Technology Upgradation (overall)									
	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available band width (MGBPS)	Others
Existing	252	9	9	2	9	1	23	100mbps	-
Added	30	-	-	-	-	-	-	-	-
Total	282	9	9	2	9	1	23	100	-
4.3.2 <i>Bandwidth available of internet connection in the Institution (Leased line)</i>									
100 MBPS /GBPS									
4.3.3 Facility for e-content									
Name of the e-content development facility				Provide the link of the videos and media centre and recording facility					
Use of high configuration for Video & Audio recording				-					
<b>4.4 Maintenance of Campus Infrastructure</b>									
4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year									
Assigned budget on academic facilities		Expenditure incurred on maintenance of academic facilities			Assigned budget on physical facilities		Expenditure incurred on maintenance of physical facilities		
2914613		2457051			2651613		2201613		
4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)									
<p>The college envisages continuous planning for optimal utilization of available physical infrastructure to ensure smooth and effective functioning. Important infrastructure facilities and their optimal utilization are given below:</p> <p>➤ The college with G+2 building with 9950 square meters and women’s hostel building with 1233 square meters built - up area. Physical cleanliness and garden maintenance of the campus are outsourced</p> <p>➤ There are 37 well –lit class rooms, 02 Audio-Visual Rooms, 08 Smart Classes, 20 Laboratories, 02 Auditoriums, 01 Library, 01 Reading room, 01 Sports room, 01 Indoor-</p>									

stadium, 01 Canteen, 01 Gym, 01 Browsing center, 01 Placement cell, 01 Counseling cell, 01 Seminar hall, 01 Museum, 02 NSS units and 01 NCC unit, 03 Women's hostel.

- Maintenance of cleanliness in Hostel, which accommodates 800 inmates, is outsourced.
- The outdoor sports facilities – a spacious play ground with volley ball, throw ball, ball badminton courts
- Indoor sports facilities - shuttle badminton court, chess, table tennis and carom
- Multi Gym facility
- Furniture and other equipments are provided adequately.
- Laboratories with well equipped and sophisticated instruments.
- Lush green garden with Ornamental, Medicinal plants and Fruit bearing trees.
- Optimum utilization of available resources.
- Shift system implemented to accommodate COP classes.
- Usage of auditorium - functions, yoga classes, meetings, Special Lectures, Seminars, Workshops and conferences.
- Study tours and field visits conducted by utilizing transport facility owned by sister institutions.
- Equipment and computers maintained under annual contract
- Housekeeping, garden maintenance and security services - outsourced.
- College canteen - delicious and hygienic food at nominal price.
- Parking lot facility
- Vermi - compost as green initiative.
- Uninterrupted power supply through generators.



CRITERION V - STUDENT SUPPORT AND PROGRESSION					
5.1 Student Support					
5.1.1 Scholarships and Financial Support					
	Name /Title of the scheme	Number of students	Amount in Rupees		
Financial support from institution	Toppers UG	15	30000		
	Toppers PG	06	16500		
Total		21	46500		
Financial support from other sources					
a) National	Nil	Nil	Nil		
b) International	Nil	Nil	Nil		
5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,					
Name of the capability enhancement scheme		Date of implementation	Number of students enrolled	Agencies involved	
Bridge Course		20.06.2017	48	College	
Yoga & Meditation		15.06.2017	347	Dept. of Physical Education	
Personal Counselling		Academic year beginning	Need basis	JSS Medical College, Mysuru	
Mentoring		Academic year beginning	All students	College	
5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year					
Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2016	Career Guidance	All final year students	224	12	126
2017			256	18	145
5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year					
<p>The college has a sexual harassment prevention cell, which consists of a lady police officer as one of the members. In case any incident is reported, the principal after verifying its authenticity, takes necessary action in consultation with the members of the cell. We are happy to place on record that So far no sexual harassment cases have been reported.</p> <p>Sexual harassment prevention cell is constituted every year, preferably with a lady sub inspector of the city as one of its members. The cell for the year 2018-19 is as follows</p>					

### Sexual Harassment Prevention Cell Committee

Sl. No.	Name	Position
1	<b>Smt. M.N.Nagalambika</b>	Convener
2	<b>Smt. Shashikala</b> Police Sub Inspector Udayagiri Police Station, Mysore	Member
3	<b>Dr. N.Mallika</b>	Member
4	<b>Smt. Shilpa</b>	Member
5	Kum. Kavya	Student Member
6	<b>Smt. C. N. Manjula</b> Second Divisional Clerk	Member
7	<b>Smt. Vijayalakshmi</b> D Group Employee	Member

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
Nil	Nil	0

#### 5.2 Student Progression

##### 5.2.1 Details of campus placement during the year

On campus			Off Campus
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
IDBI Federal Bank	48	12	45
Infosys IT	31	01	
Capgemini	36	04	
Concentrix	248	41	
EqualizeRCM	248	14	
NICE Education	182	31	
GOAN Institution	88	35	
Infosys BPO	24	7	

##### 5.2.2 Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2016-17	246	BA/BSC/BCom/BBA/BCA/BBM	Arts / Commerce / Science	Parent University & Other	MA / MSc / MCom / MBA/ MCA/MSW
2017-18	221	BA/BSC/BCom/BBA/BCA/BBM	Arts / Commerce / Science	Institutions in India & Abroad	MA / MSc / MCom / MBA/ MCA/MSW

5.2.3 Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)		
Items	No. of Students selected/ qualifying	Registration number / roll number for the exam
NET	Nil	Nil
SET		
SLET		
GATE		
GMAT		
CAT		
GRE		
TOFEL		
Civil Services		
State Government Services		
Any Other		

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year		
Activity	Level	Participants
Cultural		
Yuva Sambrama	State	50 students
Guru Vandana	State	5 students
Yuva Dasara	State	50 students
Voice of JSS	Inter University	2 students
Janapada Gayana	State	2 students
Sutturu Jathra Cultural Programmes	State	10 students

Sports				
Name	Name of the Event	Name of the Tournament	Place	Result
Team	Throw Ball	Mysore University Chamundi Zone Inter Collegiate Tournament	Maharani's Science College	Winner
Team	Ball Badminton			Winner
Team	Tennikoit			Entered Semifinal
Team	Kabaddi, Volleyball Badminton			Entered Semifinal
Team	Volleyball Throw ball	Mysore city Intercollegiate tournament	Siddhartha First Grade College, Mysore	Entered Semifinal
Team	Ball Badminton		JSSCW, Mysuru-9	Winner
Team	Tennikoit		JSSCW, Mysuru-9	Participated
Manasa S K III BA Rashmi V B II BSc Team	Shot-put 200 Mtrs Run  4x100 Relay	Basudev Somani College, Mysuru	Mysore City Inter Collegiate – Athletics Meets	III Place
Team	Throw ball			III Place
Team	Throw ball	Sri. Rajendra Swamiji Jayanthi Celebration	JSS College, Ooty Road, Mysuru	III Place
Team	Throw ball	Sri. Rajendra Swamiji Jayanthi Celebration	JSS College, Ooty Road, Mysuru	I Place

Manasa S K III BA Pooja Urs M P II BCom	Discus Shotput 400 Mtrs Hurdles 800 Mtrs Run	89 <sup>th</sup> annual Athletic Meet University of Mysore	Oval Ground Mysuru	I Place II Place I Place II Place
Sowmya Rani T III BCom Rashmi V B II BSc Pooja Urs M P Asha C Rashmi V B Ramya S Manasa S K III BA Shruthi S II BCom Sowmya Rani T Cap & Team Manasa S K Cap & Team Arun Kumar B M Cap & Team PG Students	Long Jump  800 Mtrs Run  4 x 100 Relay   Shotput  Shotput  Throw Ball  Ball Badminton  Ball Badminton	Jagadguru Dr. Sri. Shivarathri Rajendra Mahaswamigala Samsmarana JSS Inter Institute Meet	Sutturu	II Place  II Place  III Place   I Place  III Place  Winners  Winners  IV Place
Shruthi S & Team	Badminton	Mysore City Inter Collegiate Tournament	St. Philomenas College	Semi Final
Sindhu & Team	Chess			Semi Final
Sowmya Rani & Team Bindu & Team	Throwball Volleyball			Winners  III Place
Sowmya Rani T Cap & Team	Throw ball	Mysore city Intercollegiate tournament	Maharani's College	Winners
Pooja Pradeep R & Team	Cricket	Mysore city Intercollegiate tournament	Matha Amrutha Science & Arts College	Winners
Bhavya & Team	Hockey	Mysore University Inter Collegiate & Inter Zone Tournament	Sport Pavilion Mysore	Runners

### 5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID number	Name of the student
2010-11	Ultimate Warrior Group – International Karate Tournament held in Malasia	International	Karate	-	-	M P Kshama Bharadwaj
2010-11	Journalism Exchange	International	Journalism	-	-	S N Yashaswini

	programme					
2014-15	Participated in RD parade on 26th Jan 2015, New Delhi	National	NCC	-	-	M Nimisha

### 5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Students, being the key stake holders, are given due representations in all the important bodies of the college. Students are given apt representations in cultural forum and administrative forum like IQAC. Student Council consisting of student representatives are nominated by class representatives of each section. The council is involved in all activities of the college and principal would chair all the meetings of the student council. Students are given free voice to air their views and grievances which would be suitably accommodated at the right place.

Students' feedback is regularly elicited at appropriate time so that their observations are considered and suitably taken care of. Students' views on syllabi, appropriateness and usefulness of the course are discussed at suitable forum and amendments are made at convenient time to give adequate space to students' voice.

## 5.3 Alumni Engagement

### 5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

Yes

The College has a registered Alumni Association. Its composition is as follows

Principal	Ex-Officio Chairperson
President	Senior Alumni
Secretary	Senior Alumni
Joint Secretary	Senior Alumni
Treasurer	Senior Alumni
Executive Committee	5 Senior Alumni

The alumni association, with a strength of 1280, plays a proactive role in the academic growth of the college. Some of the distinguished alumnae being senior advocates, leading entrepreneurs, women activists, meet regularly in the college campus and the meeting is generally chaired by a senior officer from JSS Mahavidyapeetha. The association takes stock of the activities in the college and give advice for the academic excellence of the college. Most of the alumnae maintain a healthy relation with the college and try to give a thrust to the growth of the college. Being economically independent and having strong emotive link with their alma mater, the alumnae contribute generously, out of which a corpus fund is being created. The contributions from the alumnae is productively utilized to organize series of activities like:

- i. Induction/Orientation Program for freshers
- ii. Blood donation camp
- iii. Career counselling
- iv. Skill development programmes for the benefit of present students
- v. Supports the college in expanding infrastructure.
- vi. Identifies the poor students and provide financial assistance to the needy
- vii. Has initiated cash prizes for the meritorious students
- viii. The three storeys of the college are provided with aqua guard water, purely from the generous contribution made by the alumnae
- ix. The association contributes generously for purchasing useful reference books to the library.

x. The activities/ interactions of alumnae were widely appreciated by the NAAC committee which visited the college in the year 2016.
5.3.2 No. of registered Alumni:
1200
5.3.3 Alumni contribution during the year (in Rupees) :
Rs. 1,25,000
5.3.4 Meetings / activities organized by Alumni Association :
<ul style="list-style-type: none"> <li>○ Alumni meeting is held once in a year.</li> <li>○ One day workshop on Enhanced communicative Skills.</li> <li>○ A workshop on ornament making was organized for hostel students.</li> <li>○ Food and fruits was distributed to JSS Ayurvedic college in-patients.</li> <li>○ Visited the old age home and distributed medical kits and fruits.</li> <li>○ Special lecture was organized on ‘Women rights’</li> <li>○ A free eye check-up camp was conducted by vasan eye care ophthalmologists for the benefit of students and staff.</li> <li>○ Sports activities was organized for the alumni members</li> <li>○ Tree plantation</li> <li>○ Organises yoga programmes and other health related camps</li> <li>○ Organises debates and essay competitions.</li> <li>○ Participation in Founder’s Day celebration</li> <li>○ Potable water facility provided by the alumni.</li> <li>○ The association has donated one book shelf and 100 books to the library</li> <li>○ Visit to old age homes, orphanages and pinjrapole .</li> <li>○ Destitute students are identified and provided with required help during admission</li> <li>○ Co-ordinate the activities during the time of celebrations</li> <li>○ Cash prizes are awarded to meritorious students.</li> </ul>

<b>CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT</b>	
<b>6.1 Institutional Vision and Leadership</b>	
6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)	
<p><b>Revision of Curricula</b></p> <p>The revision of curricula is decentralized where in the heads of department, being chairpersons of Board of Studies initiate the process of revision independently. Concerned heads firstly call the meeting of the staff council of the department and later take cognitions of feedback of all stake holders for revision of curricula. Further the market viability is also independently studied by the department council before introduction of new programmes.</p> <p><b>Committees based management of college work</b></p> <p>The regular activities of the college are carried out smoothly through different committees such as Discipline committee, Library Committee, Sports Committee, Hostel Committee, Literary Committee, Magazine Committee and others. In all these committees student representation is provided. The convener of these Committees call the meetings on need basis at regular intervals and decide the course of action.</p>	
6.1.2 Does the institution have a Management Information System (MIS)?	
<p>Yes/No/Partial:</p> <p>Yes</p> <p>Since the institution believes in holistic dissemination of knowledge, the college has evolved an effective Management Information System (MIS). The annual admission procedure of students is computerised. Every detail of students like, ID number, caste, economic status is readily accessible at any point of time. The college also provides online application facility and students can apply for their desired courses by online itself.</p> <p>The institution's library is partially digitized and completely automated. The library provides INFLIBNET and OPAC facilities through which members of teaching faculty and Research Scholars can access umpteen number of books.</p> <p>All Government funded projects/ programmes come under PFMS, hence duly audited and placed before statutory bodies like GB &amp; AC for approval. The examination section is also partially digitized. The section follows manual coding and mechanical decoding process. LOGISYS software is adopted in the examination cell for entry of marks and other exam related information. Since the college has switched over to CBCS system from the academic year 2018-19 WINDOWS based software is adopted. Teachers can enter marks as soon as valuation of Internals and Main examination is over.</p>	
<b>6.2 Strategy Development and Deployment</b>	
6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):	
<p>❖ Curriculum Development</p> <p>The college, being autonomous, believes in providing the best available curricula to students in all streams. The curriculum of each department is thoroughly revised once in three years. The curriculum of the department is prepared by the concerned BoS, which normally consists of the HoD as chairperson and other senior faculty members of the</p>	

<p>department. The BoS will also have one representative from the University of Mysore, nominated by the Vice-chancellor of the university. The syllabi is drafted and placed before the concerned BoS, after threadbare discussion the syllabi will be approved. The framed syllabus will be approved by the Academic Council and later ratified by the Governing Body.</p>
<p>❖ Teaching and Learning</p> <p>The core of the College lies in the teaching – learning process and the mechanism involved. Pedagogy and learning becomes more meaningful when they are made more effective. The college has adopted more meaningful and vibrant teaching – learning system.</p> <p>Before the commencement of classes, every year certain plans are chalked as detailed below.</p> <ol style="list-style-type: none"> <li>Committee constituted to prepare the general time table.</li> <li>The copies of the time table distributed among the concerned departments.</li> <li>Subject classes and laboratory classes are distributed</li> <li>Lesson plans are prepared by each faculty member.</li> <li>The teaching plans are prepared and finalized at the department level.</li> <li>The teaching plans and the plan of action are noted down</li> </ol>
<p>❖ Examination and Evaluation</p> <p>The college, being autonomous, has Controller and Assistant Controller of Examinations, both senior professors to look after the examination wing. The office of the CoE is responsible for conducting examinations, evaluations and announcement of results. The Controller of Examinations constitutes BoE of each department in consultation with the principal and inform the respective heads of each department to call BoE meeting and prepare the required question papers. The normal procedure is three sets of papers would be set against the required number one. The heads of respective departments convene the meeting of BoE well in advance and scrutinize, edit and pass the required question papers and hand it over to the office of the CoE. On the day of examination the Chief Controller of Examinations, the Principal, opens the question paper packet and blind pick one question paper out of three sets and that question paper would be Xeroxed and distributed to students in the examination hall. In this way complete confidentiality of the question paper would be ensured.</p> <p>After the examination is over, the office of CoE, will code the answer scripts, manually and hand them over to the concerned custodian. The respective chairpersons of every department will call examiners and evaluate the answer scripts. A senior faculty member, preferably an external examiner, would review the valued answer scripts. Hence, complete confidentiality and transparency is maintained in the valuation process. Results would be announced within 48 hours from the last day of the examinations.</p>
<p>❖ Research and Development</p> <p>The college has a Research Committee with due representation to Science, Humanities, Commerce and Management constituted under the leadership of Principal. This guides faculty and give suggestions for making policy decision regarding research among faculty and students.</p> <p>The College publishes half yearly research Journal-“JSSCWM Quest-Journal of</p>



Science, Humanities, Commerce and Management ISSN No. 2321-0052”, since 2013.

The Young Teachers are encouraged to apply for minor research projects and register for Ph.D programmes. As a result, nineteen minor research projects were sanctioned by UGC. A sum of Rs.12,75,000/- has been received by the college from UGC.

The college encourages teachers to present their research papers in National and International seminars with OOD and financial support from the management, UGC and other funding agencies. The paper presenters are made to present their papers in college to motivate other young teachers and students. The college has spent on travel grant Rs. 5,41,564/- for the last five years.

The college had arranged a workshop on Research Methodology for the benefit of young teachers. The Young Teachers are provided SPSS and Tally software for data processing and e-Accounting in Computer department.

The college has taken concrete steps to encourage / promote research culture among the staff. Because of these positive initiatives 4 teachers have been awarded Ph.D during the report period.

The college supports the requirements of the researchers by meeting the travelling and others expenditure involved in preparation, presentation and submission of project proposals. All other incidental funding, if any, are met by the college. All the infrastructure facilities with internet and Wi-Fi, for taking up the research work are made available by the college. The college library furnishes the required e-resources and purchases the books related to the field of study. The principal Investigator is given independence and ample flexibility to execute research projects. The principal is given full freedom to release the grants for research as and when required by the principal investigator. Expenditure and receipts are audited from time to time by certified Chartered Accountants.

The college has undertaken collaborative research with other academic institutions. In this process knowledge sharing across institutions has been effected and the utilization of instrumental expertise has been achieved. Postgraduate departments are collaborated with JSS Research Center and JSS University for research work. The college has collaboration with Industries / Institutes in and around Mysore city as shown below

- JSS University
- JSS Krishi Vignana Kendra
- Infotech Pvt. Ltd.
- Vastram
- Dept. of Museum, Archaeology and Heritage Management, Govt. of Karnataka
- JSS Multi Specialty Hospital
- Mysore Insurance Institute

Management encourages faculty to take research by sanctioning seed money. 17 faculties, pursuing Minor Research Projects, have availed seed money facility from the management. Since last 5 years 89% of faculties have been benefitted from this.

The college has provided grants to update infrastructure required for research activities. Postgraduate departments are equipped with adequate infrastructure such as Research laboratory, Computer facilities and necessary basic amenities. Central library

with Internet facilities. Students and faculty can have access to library from 8.00 AM to 8.00 PM. Faculty and Students are trained in data collection, processing and analysis with SPSS software. The research papers of students and faculty are published in college research journal-JSSCWM Quest ISSN 2321-0052. E-Journal and E-Book facilities provided through UGC Infonet NLIST programme. Digital library facility provided through TECHFOCUZ Digital library software.

The college publishes research journal entitled “JSSCWM Quest” ISSN-2321 0052 is peer-reviewed half yearly journal devoted to publishing original research work which contributes significantly to enhance knowledge.

❖ Library, ICT and Physical Infrastructure / Instrumentation

The library is the nerve center for teaching and learning activity in the college. The college has taken initiative to motivate the students to make the best use of the facilities provided to inculcate reading habits, research and holistic development of the students to make a worthy citizen in the emerging knowledge society. Prominent student - friendly initiatives by the library includes :

- Subscription to N-LIST(National Library and Information Services Infrastructure and Scholarly Content) an E-resources Project of INFLIBNET
- In order to use the digital collections (CD/DVD) optimally, State-of-the-art Tech-focus Digital Library system has been purchased from Focus Info Tech.
- Using GUI based automation Software namely Newgenlib
- Conducted an UGC Sponsored seminar
- Based on the suggestions of the Committee and feedback from both the students and Heads of the departments, book exhibitions are arranged periodically
- Based on the suggestions made by the committee, book circulation time has been extended.
- Presently the library has 42,725 books & subscribed to 7 International & 118 National Journals

ICT and Physical Infrastructure / Instrumentation

The college has a comprehensive IT policy addressing standards on IT service management, information security, network facility, risk management and software asset management.

IT instruments are maintained by the department of Computer Science; however, service out sourcing is also available. For information security, the authentication access is followed. For internet security, firewall and anti-virus are used. Regular backups are done through servers. Information is uploaded to the server every day.

Every year in college, both hardware and software are being procured to add to the existing facility. Following are the institutional plans and strategies for deployment and up gradation of IT infrastructure.

- Upgrading Internet and Wi-Fi bandwidth speed
- Automated student attendance system
- Centralized server based lab

College has provided facility for both faculty and students to use the e-resources of library in the college campus using LAN and Wi-Fi. Educational CDs are made available in the respective departments which can be used for teaching and learning. Some class rooms

and laboratories are equipped with multimedia projector and necessary computer facility to help students and faculty access internet and online e-resources. 4 Smart classrooms with white boards are used as an interactive class for effective teaching. 14 class rooms have multimedia projectors

Some of the details on ICT enabled class rooms/ learning spaces available within the college and how best they are put into usage are :

- 15 class rooms, conference hall, seminar hall and laboratories have ICT facilities.
- Apart from this College has four AV equipped class rooms and one auditorium with full fledged ICT
- The college has a Language lab and a business lab with required software and internet connections.
- Each department has been given a laptop, so that all faculty members can use ICT enabled teaching.

#### ❖ Human Resource Management

The management believes in healthy Human Resource Management. A comprehensive HR management is practiced which include:

- Accurate planning of Human Resource requirement
- Retaining qualified and talented faculty and supporting staff.
- Organizing Faculty Improvement Programmes.
- Importance for staff welfare schemes and satisfaction.
- Maintaining healthy organizational culture and Creation of corpus funds.

#### ❖ Industry Interaction / Collaboration

MoU with the Department of Studies in Journalism and Mass Media, University of Mysore, Mysuru to organize special lectures by distinguished scholars, who visit the department. Accordingly **4 special lectures** were delivered in the college by distinguished scholars who visited DoS in Journalism and Mass Media, UoM, Mysuru (**3 Scholars from USA & 1 from Nepal**). The list of special lectures is as follows:

- i. On 07.12.2017 **Theorizing Communication from Eastern Perspective. Dr. Nirmala Mani Adhikary**, Professor of Media Studies, Kathmandu University School of Arts (KUSoA), Hattiban, Lalitpur, Nepal was the Resource Person.
- ii. On 14.12.2017 **Entertainment Media and Social Change. Dr. Arvind Singhal**, Samuel Shirley and Edna Holt Marston, Professors, Department of Communication, Cotton Memorial, University of Texas, USA was the Resource Person.
- iii. On 28.12.2017 **Freedom of Information in India and USA Dr. Nikhil Moro**, Professor and Chairperson, Department of Mass Communication and Journalism, NSU – Norfolk State University, Virginia, USA was the Resource Person.

- iv. On 8.1.2018 **ICT and Social Change Prof. Jyotika Ramaprasad**, knight center for International Media School of Communication University of Miami, Florida, USA was the Resource Person.

MoU with National Women's Science Congress to organize a series of lectures on relevant science themes during the next academic year and MoU with the National Academy of Sciences, India to organize lecture cum workshop on topics of natural science

❖ Admission of Students

As soon as pre university board of the state announces its results, the college gives advertisement in leading local news papers, inviting applications from qualified / eligible students. The details will include courses offered by the institution and facilities offered by the college.

The annual admission procedure of students is computerised. Every detail of students like, ID number, caste, economic status is readily accessible at any point of time. The college also provides online application facility and students can apply for their desired courses by online itself. The admission of students for different streams is given below for the academic year 2017-18

<b>Programs</b>	<b>2017-18</b>
BA	172
B.Sc	702
B.Com	598
BBM	42
BCA	196
BBA	79
<b>Total UG</b>	<b>1789</b>
MA (Eco)	55
M.Com	120
MSc(Che)	55
<b>Total</b>	<b>2019</b>
Certificate courses	688
Diploma	670
Advanced Diploma	157

6.2.2 : Implementation of e-governance in areas of operations:

- ❖ Planning and Development
- ❖ Administration
- ❖ Finance and Accounts
- ❖ Student Admission and Support
- ❖ Examination

<b>6.3 Faculty Empowerment Strategies</b>					
6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year					
Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support	
2017	Santhosh K	Cloud Computing with Amazon Web Services	M. S. Ramaiah Institute of Technology Bengaluru	2000	
2017	Santhosh K	<b>Entrepreneurship Development</b>	Ministry of Skill Development, Govt of India	10,000	
	Mamatha N P			10,000	
6.3.2 Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year					
Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2017	Harnessing the Potentialities of Teachers for Stakeholders' Delight	Implementation of GST: Benefits & Challenges	10.08.2017 03.03 2018	102	45
6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year					
Title of the professional development programme			Number of teachers who attended	Date and Duration (from – to)	
Cloud Computing with Amazon Web Services			01	31.07.2017 to 05.08 2017	
"Entrepreneurship Development"			02	10.10.2017 to 14.10.2017	
Refresher course for NCC Officer			01	24.06.2018 to 24.07.2018	
6.3.4 Faculty and Staff recruitment (no. for permanent recruitment):					
Teaching		Non-teaching			
Permanent	Fulltime	Permanent	Fulltime		
-	81	-	-		
6.3.5 Welfare schemes for					
Teaching	Provident fund, Employee state, Group Insurance, Mediclaim Health Insurance, Loan from JSS Cooperative Society, Residential sites from JSSMVP Employees' House Building Cooperative Society				
Non teaching					
Students	Students' accident Insurance fund facilitated by Management				
<b>6.4 Financial Management and Resource Mobilization</b>					
6.4.1 Institution conducts internal and external financial audits regularly					
Yes					

6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)				
Name of the non government funding agencies/ individuals		Funds/ Grants received in Rs.		Purpose
Nil				
6.4.2 Total corpus fund generated : Nil				
6.5 Internal Quality Assurance System				
6.5.1 Whether Academic and Administrative Audit (AAA) has been done?				
Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	External by Management	Yes	University of Mysore, Mysuru
Administrative	Yes	External by Management	Yes	University of Mysore, Mysuru
6.5.2 Activities and support from the Parent – Teacher Association (at least three)				
i. Meeting of the association is convened regularly at the end of academic year				
ii. Parents express their views on academic matters freely and point out any discrepancies, if any and come out with suggestions for further improvement of academic atmosphere				
iii. The representative from the management who chairs the meeting take note of all observations and suggest remedies for all the grievances aired by the parents.				
iv. The meeting proves very useful as it builds a healthy rapport among parents, students and teachers.				
6.5.3 Development programmes for support staff (at least three)				
A two-day workshop on Implementation of GST: Benefits & Challenges was arranged on 10.08.2017 & 11.08.2017 for familiarizing the office staff about GST.				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
i. Introduction of 15 CoP				
ii. Obtaining PMYUVA yojana of MSDE, Newdelhi				
iii. Selected for grants of Rs. 5 Crore under RUSA 2.0 (Component -8 by MHRD, Newdelhi)				
6.5.5				
a. Submission of Data for AISHE portal : Yes				
b. Participation in NIRF : Yes				
c. ISO Certification : NA				
d. NBA or any other quality audit : NA				
6.5.6 Number of Quality Initiatives undertaken during the year by IQAC				
* IQAC’s proactive role ensured extension of Autonomy for 10 years without on-field -visit				
* IQAC played a proactive role in ensuring the college to be declared Empanelled Institute under Pradhana Manthri Yuva Yojana. It is the only college under University of Mysore to get this privilege.				
* MoU with the Department of Studies in Journalism and Mass Media, University of				

Mysore, Mysuru to organize special lectures by distinguished scholars from abroad, who visit the department.

- \* Facilitated Twelve training programmes, through the placement cell, and ensured placement for 145 students.
- \* MoU with National Women's Science Congress to organize a series of lectures on relevant science themes during the next academic year and MoU with the National Academy of Sciences, India to organize a series of special lectures on topics of natural science.



CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES						
7.1 - Institutional Values and Social Responsibilities						
7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)						
Title of the programme				Period (from-to)	Participants	
					Female	Male
National Voters’ Day–2018				29.01.2018.	550	68
Legal Awareness and free legal help available for girl students				20.06.2018	480	49
7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources						
<div>➤ Solar water heater units at ladies hostel in the campus</div> <div>➤ Solar street lights in the college avenues</div> <div>➤ Campus is declared – plastic free &amp; smoking free zone</div> <div>➤ Well maintained lush green campus with beautiful ornamental plants and arbores cent trees providing abundant oxygen</div> <div>➤ To install solar power grid atop college/hostel building to generate power, required for the campus.</div> <div>➤ Better water management through Rain harvesting.</div>						
7.1.3 Differently abled (Divyangjan) friendliness						
Items Facilities			Yes/No		No. of Beneficiaries	
Physical facilities						
Provision for lift			Yes		Open to all	
Ramp/ Rails			Yes		Open to all	
Braille Software/facilities			No		01	
Rest Rooms			Yes		03	
Scribes for examination			Yes		05	
Special skill development for differently abled students			Yes		09	
Any other similar facility						
7.1.4 Inclusion and Situatedness						
Enlist most important initiatives taken to address locational advantages and disadvantages during the year						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2017-18	04	03	24.01.2018  25.01.2018	1. Street plays were enacted by NSS volunteers to create awareness among local residents to keep the area clean under ‘Swachchatha Andolana’ 2. A jatha was carried out by students to create awareness among local inhabitants about the importance of drinking clean water and desist from open defecation	Cleanliness and benefits of hygiene	120  200

			27.01.2018	3. NSS volunteers cleaned Javaregowda park and created nature friendly ambience in the park.		60
7.1.5 Human Values and Professional Ethics						
Code of conduct (handbooks) for various stakeholders						
Title		Date of Publication		Follow up (maximum 100 words each)		
Prospectus		June 2017		All students strictly adhere to norms		
Oath taking		04.12.2017		Passing out students are expected to fall in line		
7.1.6 Activities conducted for promotion of universal Values and Ethics						
Activity		Duration (from-----to-----)			Number of participants	
NSS Camp at Bhugathahalli		26.12.2017 to 01.01.2018			100	
7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)						
1. Planting of trees 2. Installation of solar street lamps 3. Banning use of plastics 4. Replacement of CFL & Tube lights with LED bulbs 5. Minimising the use of equipments emitting CFC						
7.2 Best Practices						
Describe at least two institutional best practices						
1. Mentor System						
Mentor system is implemented to monitor the overall progress of the students. Under this system, a class teacher is appointed for each class. The mentors give due attention to the following:						
➤ Monitoring the performance of students in academic matters.						
➤ Remedial classes for slow learners.						
➤ Tracking the students attendance						
➤ Bringing student's attendance and academic record to the notice of the parents.						
➤ Guide students to choose electives						
➤ Provide personal counselling						
➤ Motivating the students to participate in social activities.						
➤ Counsellors are appointed and they provide counselling in the college						
➤ Counsellors are utilized to counsel students in the hostel						
2. Environment – Friendly initiative:						
The college has initiated many nature friendly activities to conserve renewable energy and minimum wastage of resources. Some of the initiatives in this direction are:						
➤ Solar water heater units at ladies hostel in the campus						
➤ Solar street lights in the college avenues						
➤ Campus is declared – plastic free & smoking free zone						
➤ Well maintained lush green campus with beautiful ornamental plants and arbores cent trees						

providing abundant oxygen

- To install solar power grid atop college/hostel building to generate power, required for the campus.
- Better water management through Rain harvesting.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

Will be provided

### 7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust  
Provide the weblink of the institution in not more than 500 words

Fulfilment of the Vision of the college – **‘Empowering Women through Academic Excellence’** – is accorded top priority by the college. The college not only aims at imparting formal education but also assists the students in shaping their future. Accordingly, the placement cell of the college is functioning effectively to enable students to secure lucrative jobs. Many companies of National & International repute visit the campus, regularly, to select the prospective employees. Thus, the college plays a pro-active role in nurturing students to grow into independent, intelligent, cultured and respectable citizens of the society. The absorption rate at 30% is too good for the college, which offers general education.

**Programmes focussed on employability/ entrepreneurship/ skill development  
during the Academic year**

Course	Semester	Paper / Elective	Subject
<b>BA</b>	II, IV		Optional English
	III	Language	English
	IV	Language	English
	V	Paper 5, Paper 7	Optional English
	VI	Paper 8 , Paper 10	Optional English
	I , II, IV	Language	Kannada
	II, III, VI		Optional Kannada
	I, III, IV	Language	Hindi
	I	<b>History</b>	History of India (UPTO 1206 CE)
	II		Socio – Political History of India (From 1206 To 1716 CE)
	III		Political History of Karnataka (From 3 BCE To 1565 AD)
	IV		Socio-Cultural History of Karnataka (From 3 BCE To 1565 AD)
	V	Compulsory Paper	
	V	Elective Paper -1	Indian National Movement (1885-1947)
		Elective paper-2	History of Karnataka (1565 - 1956)
	VI	General Elective-1	History of Modern India (1757 - 1885)
		General Elective-2	Indian National Movement
		Compulsory Paper	Heritage Tourism In Karnataka
		Elective Paper -1	Europe and the World (1789 – 1945)
		Elective Paper -2	Contemporary World (1945 - 2000)
			Contemporary Karnataka (1956 - 2006)
	I	<b>Political Science</b>	
	II		Introduction To Political Theory
	III		Indian Government And Politics
	IV		Comparative Governments And Politics
	V	Elective Paper -1	Introduction To International Relation
		Elective Paper-2	Themes In Comparative Political Theory
	VI	Elective Paper -1	Democracy and Governance(Elective Paper-2)
			Administration of Public Policy Concepts and Theories
		Elective Paper-2	(Elective Paper 1)
		Generic Elective	Understanding Globalization (Elective paper 2)
		Paper-1	Human Rights Gender and Environment (Generic Elective
		Generic Elective	paper 1)
		Paper-2	(Reading Ghandi) Generic Elective paper 2
		<b>Economics</b>	

	I II III IV V VI	<b>Elective Paper– 1</b> <b>Elective Paper– 2</b> <b>Elective Paper– 3</b> <b>Elective Paper– 4</b>  <b>Elective Paper– 5</b>  <b>Elective Paper– 6</b> <b>Generic Elective-1</b> <b>Generic Elective-2</b>  <b>Journalism and Mass Communication</b>	Core Economics II: Principles of Micro economics-II Core Economics III: Principles of Macroeconomics-I Core Economics IV: Principles of Macroeconomics-II Discipline Specific Elective (DSE) 1: Economics of Development Discipline Specific Elective(DSE) 2: Money and Banking Discipline Specific Elective(DSE) 3: Environmental Economics Discipline Specific Elective (DSE) 4 : Economic Development Policy In India Discipline Specific Elective (DSE) 5:Economic History of India 1857-1947 Discipline Specific Elective (DSE) 6:Public Finance Introduction to Economics Money and Public Finance
	I II III IV V VI	      <b>Generic Elective Paper – 2</b>  <b>Environmental Studies</b>  <b>Sociology</b>	DSC-1B Core: APPLIED JOURNALISM  DSC-1D Core : EDITING DSE-1A Core : ONLINE MEDIA or DSE-3A Media Law and Ethics GE -2 Intercultural Communication
	I II III IV VI	     <b>Elective Paper – 2B</b>	Sociology of India  Methods of Sociological Enquiry Medical Sociology (Elective – 2B)
BSc	I II III IV V VI  I II	<b>Botany</b>      <b>Elective Paper -1</b> <b>Elective Paper -3</b>  <b>Computer Science</b>	Microbial diversity, Algae, Fungi, Plant Pathology and Bryophytes Pteridophytes, Gymnosperms, Anatomy of Angiosperms and Reproductive Biology Morphology and Taxonomy of Angiosperms and Plant Propagation Plant physiology and Evolution Cell biology, Molecular Biology and Ecology (Elective 1) Genetics, Genetic Engineering, Plant Breeding And Plant Biotechnology (Elective 3)  Programming in C and Python  Problem Solving and Data Structure

	III VI V	<b>Elective Paper -1</b> <b>Elective Paper -2</b> <b>Elective Paper -3</b> <b>Compulsory Paper-1</b> <b>Compulsory Paper-1</b>	Operating system and Software Engineering RDBMS and Visual Programming JAVA and Computer Networks Internet Programming (Elective 2) Multimedia Computing (Elective 3) Office Automation  XML Programming
		<b>Elective Paper -1</b> <b>Elective Paper -2</b> <b>Elective Paper -2</b> <b>Compulsory Paper-1</b> <b>Compulsory Paper-2</b>	Advanced visual Programming Object oriented Analysis and design Mobile Application R Programming  Tally
		<b>Physics</b>	
	I		Mechanics, properties of matter and Waves
	II		Thermal Physics, Sound and Electrostatics
	III		Electricity and Electromagnetic theory
	IV	<b>Elective Paper -1</b>	Optics, Atomic and Molecular Spectroscopy
	V	<b>Elective Paper -2</b>	Relativity, Nuclear Physics and Quantum Mechanics
		<b>Compulsory Paper-1</b>	Mathematical physics
		<b>Compulsory Paper-2</b>	Lasers and Fibre Optics
		<b>Compulsory Paper-3</b>	Astronomy and Astrophysics
		<b>Compulsory Paper-3</b>	Nano Materials
	V	<b>Elective Paper -1</b>	
		<b>Elective Paper -2</b>	Solid State Physics, Electronics and communication
		<b>Compulsory Paper-1</b>	Medical physics
		<b>Compulsory Paper-2</b>	Optoelectronics
		<b>Compulsory Paper-3</b>	Renewable Energy Sources
			Solving Problems in Physics
		<b>Mathematics</b>	
	I		Understand the concept of successive differentiation, homogeneous functions, Euler's theorem, Jacobian and properties.
	II		Understand to solve problems on finding the curvature, radius of curvature, centre of curvature and general rules for various forms of curves tracing.
	III		Able to represent a periodic function as a Fourier series.
	IV		Learning the concept of second and higher order

	V	Paper - 1	ordinary linear differential equations. Understand the concept of calculus of variation.
		Paper - 2	Identify the concept of integral theorems and applications of triple integral.
	VI	Paper - 1	Get the knowledge of finite differences and variation of functions with equal and unequal intervals and numerical integration.
		Paper – 2	Learning solutions of initial value problems for first order ordinary linear differential equations.
			Learning linear transformations and standard properties. Able to determine the Fourier transformation of a given function and properties.
	I	<b>Biochemistry</b>	
			Biomolecules – Classification, structure and biological functions of Carbohydrates, amino acids , proteins and nucleic acids
	II		The classification, structure & biological importance of lipids.
	III		Physiology of muscular system, Nervous system, Cardiovascular system, Excretory system & Gastrointestinal, Endocrine system & hepatic system
	IV		Metabolism of Carbohydrates, amino acids, lipids & nucleic acids
	V	Paper – 1	Knowledge of Nutrition and Assessment of nutritious status
		Paper-2	Nutritional disorders such as Kwashiorkor and Marasmus, Scurvy, beri beri, pellagra,
		Compulsory Paper – 1	Inborn errors of Metabolism & Diseases due to misfolded proteins
		Compulsory Paper-2	Protein isolation, purification & characterization techniques
	VI	<b>Elective Paper -1</b>	Structure & characteristics of Antibodies & Antigens Hypersensitivity reactions Vaccination
		<b>Elective Paper -2</b>	Plant cell structure. Regulation of plant growth and Plant tissue culture.
			Analysis of Urine & blood for various constituents & their clinical significance. Serum enzymes in liver disease Cardiac injury profile Analysis of Urine & blood for various constituents & their clinical significance.
		Compulsory Paper – 1	

		<p>Compulsory Paper - 2</p> <p>Microbiology</p> <p>I</p> <p>II</p> <p>III</p> <p>IV</p> <p><b>Elective Paper -1</b></p> <p><b>Elective Paper -2</b></p> <p>V</p> <p>VI</p> <p><b>Elective Paper -1</b></p> <p><b>Elective Paper -2</b></p> <p><b>Chemistry</b></p> <p>I Semester</p> <p>II Semester</p> <p>III Semester</p> <p>IV Semester</p> <p>V Semester</p> <p>VI Semester</p> <p><b>Biotechnology</b></p> <p>I Semester</p> <p>II Semester</p> <p>III Semester</p> <p>IV Semester</p> <p>V Semester</p> <p>VI Semester</p> <p><b>PG Economics</b></p> <p>I Semester</p> <p>II Semester</p>	<p>Serum enzymes in liver disease</p> <p>Cardiac injury profile</p> <p>Basics in Biostatistics</p> <p>Bioinformatics - Biological databases and data retrieval &amp;- Sequence alignment</p> <p>Introduction to Microbiology and Bacteriology</p> <p>Microbial Diversity and Environmental Microbiology</p> <p>Virology, Microbial Physiology, Microbial Genetics and Dairy Microbiology</p> <p>Microbial Metabolism, Genetic Engineering and Food Microbiology</p> <p>Agricultural Microbiology, Industrial Microbiology and Microbial Biotechnology</p> <p>Plant Pathology</p> <p>Food Fermentation Techniques</p> <p>Biofertilizers and Biopesticides</p> <p>Immunology, Medical Microbiology and Phytopathology</p> <p>Microbes in Sustainable Agriculture and Development</p> <p>Microbial Diagnosis in Health Clinics</p> <p>Management of Human Microbial Diseases</p> <p>(HC1) Advanced Microeconomics</p> <p>(HC2) Statistics for Economics</p> <p>(HC3) Mathematics for Economics</p> <p>(HC4) Econometrics-1</p> <p>(SC1) Practice of Banking and Insurance</p> <p>(SC3) Gender Economics</p> <p>(HC5) Development Economics</p> <p>(HC6) Statistics for Economics</p> <p>(HC7) Advanced Indian Economy</p>
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		III Semester	(HC8) Econometrics - II (SC4) Computer Applications to* Economics (SC5) Research Methodology and Data Analysis (SC6) E-commerce in the Emerging Knowledge Economy (HC9)Public Economics (HC10)Theory and Practice of International Trade (HC11) Econometrics-III (SC7) Nanoeconomics (SC8) Infrastructure Economics (SC9) Experimental Economics
		IV Semester	(OE1)Consumer and Family Economics (Compulsory) (HC12) Government Finance and Budgeting (HC13) Econometrics-1V (SC10) MINOR PROJECT WORK / TERM WORK (SC11) Operations Research (SC12) Executive Communication and Soft Skill
		PG Chemistry I	(OE) Economics of Globalization (Optional) Fundamentals of Chemical Analysis Inorganic chemistry-I Stereochemistry; Reaction mechanisms and Heterocyclic Chemistry Physical Chemistry -I Analytical chemistry practical Inorganic chemistry practical Organic chemistry practical Applied Analysis I Frontiers in Inorganic Chemistry Reaction Mechanism
		II	Solid State Chemistry and Chemistry of Nano Materials Separation Techniques Advanced coordination chemistry Reagents in Organic Synthesis; Photochemistry and Pericyclic Reactions Quantum chemistry and molecular spectroscopy: Analytical chemistry practical: Inorganic chemistry practical: Organic chemistry practical: Instrumental Methods of Analysis: Spectroscopy
		III	Inorganic chemistry-II Biophysical chemistry and polymers: Bioinorganic chemistry Advanced Physical Chemistry
		IV	

		PG Commerce I  II  III  <b>Elective Paper -7</b>  <b>Elective Paper -8</b> <b>Open Elective</b>  IV	Kinetics and Thermodynamics of Polymerization Applied Analysis II Applied Analysis III Solid State Chemistry and Chemistry of Nano Materials Retrosynthesis and Organometallic Chemistry Biomolecules and Natural Products Dissertation or Project Work  (HC03)Advanced Marketing Management HC04: ORGANIZATIONAL BEHAVIOUR SC01: Statistics For Business Decisions SC02: Business Communication HC 05: Capital Market Instruments HC06: Advanced Human Resource Management HC: 07 - Operations Research HC 08: Marginal Costing And Decision Making HC 09: Business Research Methods Financial Management Paper01: International Financial Management Cost Management Paper01: Strategic Cost Management-1 OE-1Financial Accounting OE-2 Business Management HC 12: International Accounting HC 13: Strategic Management SC07: Legal Aspects of Business Sc 08: Project Work Elective 01: Business Taxation Paper 02: Goods And Service Tax And Custom Duty Elective 02: Human Resource Management Paper02: International Human Resource Management Elective 03: Marketing Paper02: International Marketing Elective 04: Banking Paper02: Banking Technology Elective 05: Insurance Management Paper02: Management Of Non Life Insurance Elective 06: Financial Accounting Paper-2: International Financial Reporting Standards (Ifs) Elective 07: Financial Management Paper 02: Strategic Financial Management
BCom	I III IV		Financial Accounting DSC-1 Income Tax DSC-7 Computer Applications In Business SEC-1 Corporate Accounting

	V		Women Entrepreneurial Development Computer For Accounting SEC-2 Business Taxation DSC -12 Business Research Methods Business Mathematics Professional Communication And Soft Skills Auditing And Corporate Governance Business Decisions Business Research Methods International Financial Reporting Standards Strategic Corporate Finance GST & Customs Duty Management Accounting Project Work Event Management Strategic Management Working Capital Management Business Decisions-Ii
	VI	Language Language	Hindi English
BBA	I II IV		Statistics For Business Corporate Law Computer Applications In Business Quantitative Techniques
	V		Business Research Methods Business Decisions-I International Business
	VI	Language Language	GST & Customs Duty Project Work Hotel And Tourism Management Project Work Hindi Sanskrit
BCA	I		Computer Fundamentals and PC maintenance
	II		Programming in C and Python Problem Solving and Data Structure Database Management System Visual Programming Operating system Advanced Visual Programming Software Engineering Java Programming Computer Networks Object Oriented Analysis and Design
	III		
	IV		

	V		Operational Research Data warehouse and Data mining E-Commerce Technology PHP Programming Cloud Computing Analysis and Design of Algorithm J2EE Numerical Techniques and Statistics Computer Graphics R Programming Computer Simulation Graphics Design Interface using c# XML Programming Android Programming Multimedia Computing Fuzzy Logic Internet Programming Microprocessor Digital Image Processing Project Work Advanced R Programming  Advanced Computer Simulation Tally Advanced XML  Language Language
	VI		Hindi Sanskrit

## 8. Future Plans of action for next academic year (500 words)

1. PG Programme in Botany
2. New MoUs with Institutions & Industries
3. Construction of New Laboratories
4. To get the status of Research Center under RUSA grants
5. To install Solar Panels in college for harnessing solar energy
6. To go for Rain harvesting for better water management.
7. To install telescope observatory
8. To setup RO purified Water plant.
9. To establish Human Resource Development Center.
10. To have MoU with National Women's Science Congress to organize a series of lectures on relevant science themes and MoU with the National Academy of Sciences, India to organize lecture cum workshop on topics of natural science.
11. Provision for credit transfer under MOOC & SWAYAM
12. Setting up of Sewerage treatment plant
13. Providing for continuous teacher training facility under RUSA 2.0
14. Thrust on consultancy in Mushroom culture, Soil testing, Personal Taxation – filing returns
15. Emphasis on skill development
16. To introduce new CoCs

