

QUALITY INDICATOR FRAMEWORK (QIF)

CRITERION-1

1.1.1 ACTION PLAN/ LESSON PLAN

Sample Action Plan/Lesson Plan of all the Departments

Sl.no.	Year	Department	Page number
1	2016-17	Zoology	2 - 3
2	2018 -19	English	4 - 6
	2019-20		
	2020-21		
3	2017-18	Chemistry	7-8
	2019-20		
4	2019-20	Mathematics	9-10
	2020-21		
5	2019-20	Computer Science	11-12
6	2017-18	Physics	13-15
7	2017-18	Electronics	16-17
8	2020-21	Kannada	18
9	2017-18	Botany	19
10	2017-18	Chemistry	20-23

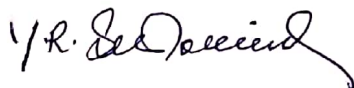
ACTION PLAN 2016
DEPARTMENT OF ZOOLOGY
KALPATARU FIRST GRADE SCIENCE COLLEGE
TIPTUR
SEMESTERS: I, III, and V (Odd Semester)

I, III, V SEMESTER B.Sc,CBZ Classes were run according to the Tumkur University Calendar of Events to complete the syllabus. Other than the completion of the syllabus following action plans were initiated in the department for the benefit of rural students

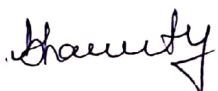
- To identify slow learners in these semesters mentioned earlier and extra remedial classes to be conducted.
- To solve previous year's question papers and provide a valuation scheme.
- To identify slow learners who were weak in practical and to provide extra coaching.
- To organize a visit to the nearby Poultry, Dairy, Fish and Rabbit farming centres.
- To organize seminars for students to develop self-confidence.

STAFF MEMBERS

1 Y.R. SOMASHEKARAIAH



2 L.N.BHARATH KUMAR





HOD OF ZOOLOGY ARJUNASWAMY

M.Sc., PGDEE, M.Phil

Associate Professor
and

HoD of Zoology
Kalpataru First Grade Science College
TIPTUR - 572201


Principal
Kalpataru First Grade Science College
TIPTUR - 572201

ACTION PLAN 2017
DEPARTMENT OF ZOOLOGY
KALPATARU FIRST GRADE SCIENCE COLLEGE
TIPTUR

SEMESTERS: II, IV, and VI (Even Semester)

II, IV, VI SEMESTER B.Sc,CBZ Students Classes were run according to the Tumkur University Calendar of Events for completion of syllabus. Other than the completion of the syllabus following action plans were initiated in the department for the benefit of rural students

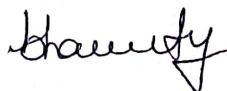
- To identify slow learners in these semesters mentioned earlier and extra remedial classes to be conducted.
- To solve previous year's question papers and provide a valuation scheme.
- To identify slow learners who were weak in practical and provide extra coaching.
- To organize a visit to nearby Poultry, Diary and Fish and Rabbit farming centres.
- To organize seminars for students to develop self-confidence.
- To train students to make PPT presentations for their seminars.
- A demonstration has to be given for V and VI Sem students about Handling interactive Boards.
- Study tour to be organized for VI Sem students to Manipal anatomy Museum and specimen collection from coastal areas to understand coastal diversity of fauna.
- To prepare students for the JAM exam conducted by IISc and IIT
- To screen a documentary on life to understand animals' diversity and behaviour.
- To motivate students to pursue further education in Life science and other competitive exams.
- To provide necessary instruction and Guidance for the students of IV Sem for the Preparation of Human anatomy models for their practicals.
- To provide necessary instruction and Guidance for the students of VI Sem for the Preparation of a Project on Eco-Behavioural adaptations of Some selected Mammals.

STAFF MEMBERS


1 Y.R. SOMASHEKARIAH

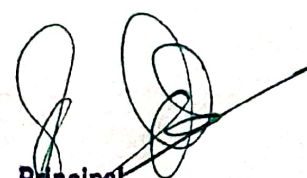


2 L.N.BHARATH KUMAR



4


G.C. MALLIKARJUNASWAMY
HOD OF ZOOLOGY
M.Sc., PGDEE, M.Phil
Associate Professor
and
HoD of Zoology
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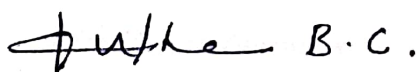
KALPATARU FIRST GRADE SCIENCE COLLEGE

DEPARTMENT OF ENGLISH (BSc and BCA)

ACTION PLAN FOR THE YEAR 2018-19

Our Vision is to foster well-balanced, dynamic, and holistically empowered individuals.

- To commence bridge courses for the first-semester students to familiarise them with basic English.
- To organise a seminar in association with Gandhi Bhavan on the ' Relevance of Gandhi.' for students.
- Talks are on to invite Sri Lakshmeesha Tolpadi, a scholar, to the college as a resource person for Prathibhashree or Dept of languages.
- To screen short films based on the themes prescribed in the syllabus and enhance critical and analytical ability. It aims to help students be empathetic to the world outside the classroom.
- To make the classes lively and interactive by initiating group discussions that engage self-expression, their opinions, and gender stereotypes.
- To give assignments based on previous question papers to familiarise them with question paper patterns.
- To conduct tests as per the Calendar of Events.
- To organise International Women's Day in association with Women Redressal Cell.
- We analyse the results to identify the student's strengths and weaknesses and focus our teaching where it's most needed.
- To encourage students to do practice papers to face the exams effectively.
- To encourage students to apply for various scholarships.
- To train them in soft skills, group discussion, corporate culture, personality development, interview etiquette, interpersonal relationships, etc., and digital learning tools.

 B.C.

Head of The Department


Principal

Principal
Kalpataru First Grade Science College
TIPTUR - 572201



KALPATARU FIRST GRADE SCIENCE COLLEGE

DEPARTMENT OF ENGLISH (BSc and BCA)

ACTION PLAN FOR THE YEAR 2019-20

Our Vision is to foster well-balanced, dynamic, and holistically empowered individuals.

- To begin practice exercises in grammar for the first-semester students to familiarise them with basic English.
- To celebrate National Mother's Language Day on 25-02-2020 to create awareness of the mother tongue and how it can shape our culture, define personality and shape our emotions and thoughts.
- Talks are on to invite folklorist Naadamani Nalkur as a special guest to address the students.
- To screen short films based on the themes prescribed in the syllabus and enhance critical and analytical ability. It aims to help students be empathetic to the world outside the classroom.
- To make the classes lively and interactive by initiating group discussions and sharing a story, an experience, and a character, you need to make life and the world a lot more empathetic, compassionate, healthy, inclusive, and a safe space to be in.
- To give assignments based on previous question papers to familiarise them with question paper patterns.
- To conduct tests as per the Calendar of Events.
- To organise International Women's Day in association with Women Redressal Cell.
- We analyse the results to identify the student's strengths and weaknesses and focus our teaching where it's most needed.
- To encourage students to apply for various scholarships.
- To encourage students to do practice papers to face the exams effectively.
- Encourage students to participate in Funfair, Ethnic day, and Sports and Cultural competitions.

[Signature] B.C.

Head of The Department

[Signature]
Principal

Kalpataru First Grade Science College
TIPTUR - 572201



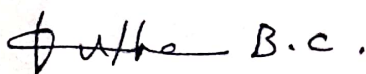
KALPATARU FIRST GRADE SCIENCE COLLEGE

DEPARTMENT OF ENGLISH (BSc and BCA)

ACTION PLAN FOR THE YEAR 2020-21

Our Vision is to foster well-balanced, dynamic, and holistically empowered individuals.

- To educate students about NEP and its multiple initiatives and objectives.
- To organise webinars for students and faculty on Interview Skills, Communication Skills, and the Effect of the Pandemic on Migrant Workers. We have contacted the resource persons over the telephone.
- Talks are on to invite folklorist Naadamani Nalkur as a special guest to address the students.
- To screen short films based on the themes prescribed in the syllabus and enhance critical and analytical ability. It aims to help students be empathetic to the world outside the classroom.
- To make the classes lively and interactive by initiating group discussions that engage self-expression, their opinions, and gender stereotypes.
- To give assignments based on previous question papers to familiarise them with question paper patterns.
- To conduct tests as per the Calendar of Events.
- To organise International Women's Day in association with Women Redressal Cell.
- We analyse the results to identify the student's strengths and weaknesses and focus our teaching where it's most needed.
- To encourage students to do practice papers to face the exams effectively.
- Encourage students to participate in Funfair, Ethnic day, and Sports and Cultural competitions.
- To enhance listening, speaking, reading, and writing skills.

 B.C.

Head of The Department


Principal

Kalpataru First Grade Science College
TIPTUR - 572201



ACTION PLAN FOR THE YAER 2017 - 18

DEPARTMENT OF CHEMISTRY

KFGSC, TIPTUR.

- Department of chemistry will continue to strive for excellence in its academic pursuits has always lead department in the college. Main focus will be systematic and progressive coverage of syllabus, practical work and applications of chemistry.
- To conduct bridge course for I B.Sc chemistry students.
- Stock verification of apparatus and chemicals of the department.
- To conduct seminar for the students of III B.Sc (Vsemester) and II B.Sc (III semester).
- Continue to engage the remedial classes for advanced and slow learners.
- Planned to conduct chemistry exhibition for High school students.
- To conduct tests for internal assessment.
- To organize special lecture for B.Sc students.
- Decided to organize industrial visit for final B.Sc students.
- Continue to check the hardness of water from different places by the students.
- To conduct unit test in the practical classes.
- Preparation of manuals for all semesters.
- Planning to visit IISc on open day.
- To conduct practical test.
- To organise National level seminar to create awareness and future trends in chemistry.

HOD



Dept. of Chemistry
KFGSC., Tiptur - 572202

PRINCIPAL



Principal
Kalpataru First Grade
Science College, Tiptur.


ACTION PLAN FOR THE YAER 2019-20

DEPARTMENT OF CHEMISTRY

KFGSC, TIPTUR.

- Department of chemistry will continue to strive for excellence in its academic pursuits has always lead department in the college. Main focus will be systematic and progressive coverage of syllabus, practical work and applications of chemistry.
- To conduct bridge course for I B.Sc chemistry students.
- Stock verification of apparatus and chemicals of the department.
- Continue to engage the remedial classes for advanced and slow learners.
- Decided to organize industrial visit for final B.Sc students.
- To conduct tests for internal assessment.
- To organize special lecture for B.Sc students.
- Planned to conduct chemistry exhibition for High school and PU students.
- Continue to check the hardness of water from different places by the students.
- To conduct practical test.
- To conduct unit test in the practical classes.
- Decided to take online classes.
- To conduct seminar for the students of III B.Sc (Vsemester) and II B.Sc (III semester).

HOD


Head

Dept. of Chemistry
KFGSC., Tiptur - 572202

PRINCIPAL



Principal
Kalpataru First Grade
Science College, Tiptur.

KALPATARU FIRST GRADE SCIENCE COLLEGE, TIPTUR

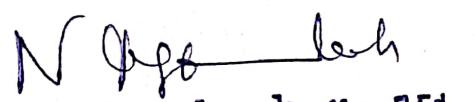
ACTION PLAN FOR THE YEAR 2019-20

DEPARTMENT OF MATHEMATICS

- The department is conducting department meetings regularly once in two months, for prepare teaching plans ,allotment of syllabus,distribution of time table for both theories and labs.
- Faculty members are guide the students through model question papers and previous year question papers for the final examination.
- To increase performance level in Maths by giving tests,assignments and projects.
- To help the students develop their skills by making mathematics fascinating.
- Identify the topics in Mathematics that the learners least learned. And help them improve their skills in such matters.
- To conduct a bridge course for I B.Sc Mathematics students.
- Continue to engage the remedial classes for slow learners.
- To conduct internal assessment tests.
- To conduct the unit test in the practical classes.
- We decided to take online classes.
- Preparation of question papers for the final lab examinations according to the B.O.E guidance.
- Preparation for lab exams includes the number of answer booklets, mark lists, covers and systems etc.
- Extra classes and labs will be taken for the students who were admitted late.


Principal

Kalpataru First Grade Science College
TIPTUR - 572201


N. Jagadeesh, M.sc.,B.Ed.,
Prof. & HOD
Dept. of Mathematics
Kalpataru First Grade Science College
TIPTUR - 572201



KALPATARU FIRST GRADE SCIENCE COLLEGE, TIPTUR

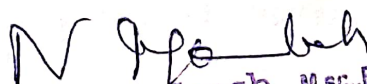
ACTION PLAN FOR THE YEAR 2020-21

DEPARTMENT OF MATHEMATICS

- The department is conducting department meetings regularly once in two months, for prepare teaching plans ,allotment of syllabus,distribution of time table for both theories and labs.
- Faculty members are guide the students through model question papers and previous year question papers for the final examination.
- To help the students develop their skills by making maths fascinating
- Mathematical activities will be assigned to create the logical and reasoning abilities of the students.
- To organize special lectures for B.Sc students.
- To conduct bridge courses for I B.Sc Mathematics students.
- We decided to take online classes.
- To conduct the unit test in the practical classes.
- To conduct tests for internal assessment.
- Continue to engage the remedial classes for slow learners.
- Preparation of question papers for the final lab examinations according to the B.O.E guidance..
- Preparation for lab exams includes the number of answer booklets, mark lists, covers and system etc.
- Extra classes and labs will be taken for the students who were admitted late.


Principal

Kalpataru First Grade Science College
TIPTUR - 572201


N. Jagadeesh, M.sc., B.Ed.,
Prof. & HOD
Dept. of Mathematics
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TIPTUR - 572202





KALPATARU VIDYA SAMSTHE®
KALPATARU FIRST GRADE SCIENCE COLLEGE, TIPTUR
DEPARTMENT OF COMPUTER SCIENCE

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(Re-accruited 'A' Grade by NAAC)

Action Plan for the Academic Year 2019-20

S.N.	Head	Action Plan for the year
1	Curricular Planning and Implementation	<ol style="list-style-type: none">1. Academic activity calendar will be prepared by college for the Annual and Semester patterns.2. Departmental Calendars of Activities(Academic and Co-curricular) are prepared by the department.3. Objectives of the curriculum will be achieved by department.
2	Academic Flexibility	<ol style="list-style-type: none">1. Semester and choice-based Curriculum will be adopted.2. Provide software and uninterrupted laboratory facilities to prepare projects and reports.
3	Curriculum Enrichment	<ol style="list-style-type: none">1. Department will ensure that Study tours, field visits, group discussions, and seminars are conducted in the department.2. At least 1-2 Sensitization programs/ courses on cross-cutting issues like gender, environment, human values, and professional ethics will be organized.3. No. of projects for students will be enhanced.
4	Feedback System	Feedback will be obtained from teachers, students, alumni, and Employers. Feedback will be analyzed and new initiatives will be introduced.
5	Catering to student diversity	<ol style="list-style-type: none">1. Initiative to assess the learning levels of students will be enhanced2. Proficiency/Diagnostic tests to identify slow and advanced learners.3. Remedial classes for slow learners.
6	Teaching Learning Process	Department will observe the following teaching-learning <ol style="list-style-type: none">1. Classroom teaching.2. interactive teaching-learning methods,3. Teaching by using PPT.4. Video lectures
7	Teacher Quality	<ol style="list-style-type: none">1. University will organize training workshops for ICT based skill enhancement for teachers.


VINAY M. S.
HOD of Computer Science
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TIPTUR - 572 201.

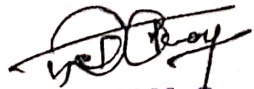

Principal
Kalpataru First Grade Science College
TIPTUR - 572201



KALPATARU VIDYA SAMSTHE®
KALPATARU FIRST GRADE SCIENCE COLLEGE, TIPTUR
DEPARTMENT OF COMPUTER SCIENCE

E-mail: vinayksc@gmail.com, Web Address: www.kfgsctiptur.in
(Re-accredited 'A' Grade by NAAC)

8	Evaluation Process and Reforms	<ol style="list-style-type: none">1. Objective Test / Open book tests will be conducted.2. Test series will be started in departments.
9	Student Performance and Learning Outcomes	<ol style="list-style-type: none">1. Department will analyze students' performance during the complete evaluation process and steps will be taken to improve students' performance.2. Group discussion, Viva test series will be conducted to identify slow and fast learners.
10	IT -Infrastructure	<ol style="list-style-type: none">1. Number of nodes will be increased.2. IT facilities will be kept updated.3. Projector will be installed in most of classrooms and Seminar halls.4. Free Wi-Fi facility will be available for students.
11	Student Mentoring and Support	<ol style="list-style-type: none">1. Mentor system will be followed.2. Remedial teaching will be provided to slow learners.3. Projects will be allotted to the advanced learners.4. Classes for competitive exams will be arranged5. Co-curricular and Extracurricular activities will be run by each department for students.6. 2 Career counseling activities will be done.7. Placement activities/ drives will be arranged.8. Welfare schemes for students will be enhanced.9. Competitive examinations guidance activities will be conducted by the competitive exams guidance center.10. Guidance to scholarship holder students by the college faculty.
12	Student Progression	<ol style="list-style-type: none">1. Student progression to higher education will be enhanced by continuous counseling through the mentor system and career counseling cell.2. Results and completion rate will be increased and drop out will be decreased
13	Student Participation and Activities	Will be ensured through the student council, NSS, Sport Department, Cultural committee, College magazine, , and through departmental activities.
14	Innovations and best practices	<ol style="list-style-type: none">1. One new innovative practice will be started.2. The report and photographs of Events held in the college will be given regularly to the college website for uploading.
15	Sports activities	The sports department will organize University level events and College-level sports events, including Yoga.


VINAY M. S.
HOD of Computer Science
Kalpataru Pre-University College
TIPTUR - 572 201.

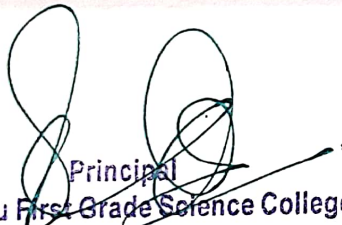

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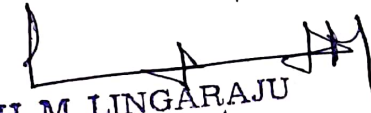
DEPARTMENT OF PHYSICS

ACTION PLAN FOR THE YEAR 2017-2018

Other than completing the Syllabus in a stipulated time following action plans are initiated in the department to benefit students.

- To conduct an exhibition for high school students
- To identify the weakness of students in academic performance and take corrective measures
- To prepare lab manuals and theory notes
- To conduct regular practical and theory tests
- Seminars by students to be made compulsory for final year students to develop self-confidence
- To guide the students to prepare ppt. for seminars
- To organize special lectures by the subject experts
- To celebrate National Science Day on 28th February


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H. M. LINGARAJU
HOD, Physics
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TIPTUR - 572 202.

Allotment of Syllabus to the Faculty for the Year 2017-18

ODD SEMESTER

Sem/paper	Chapter	Allotted hours	Teachers assigned
I SEM	UNIT-1: Laws of Motion, Momentum and energy	15	KSM-PCM KSM-PME+Cs
	UNIT-2: Rotational Motion and Gravitation	15	BS-PCM BS -PME+Cs
	UNIT-3: Oscillations and Elasticity	15	TG-PCM TG-PME+Cs
	UNIT-4: Special theory of relativity	15	HML-PCM HML-PME+Cs

Sem/paper	Chapter	Allotted hours	Teachers assigned
III SEM	UNIT-1: Kinetic theory of gases	15	HML-PCM HML-PME+Cs
	UNIT-2 : Thermodynamics	15	KSM-PCM KSM -PME+Cs
	UNIT-3: Low temperature and radiation	15	TG-PCM TG-PME+Cs
	UNIT-4: Wave Optics and interference	15	BS-PCM BS -PME+Cs

Sem/paper	Chapter	allotted hours	teachers assigned
V SEM Paper- V (501)	UNIT-1: Newton s law of gravitation and composition of the atmosphere.	15	BS-PCM BS-PME+Cs
	UNIT-2 : Electronics-1	15	KSM-PCM KSM-PME+Cs
	UNIT-3.Electronics-2	15	SYP-PCM SYP-PME+Cs
V SEM Paper- VI (503)	UNIT-1:Development of quantum mechanics	15	HML-PCM HML-PME+Cs
	UNIT-2: Schrodinger's equation	15	GSM-PME+Cs GSM-PCM
	UNIT-3.:Vector model of the atom	15	SBR-PCM SBR-PME+Cs

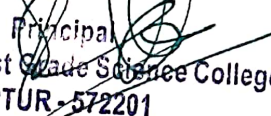
Allotment of Syllabus to the Faculty for the Year 2017-18

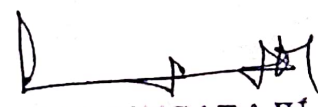
EVEN SEMESTER

Sem/paper	Chapter	Allotted hours	Teachers assigned
II SEM	UNIT1: Vector analysis	15	BS-PCM BS-PME+Cs
	UNIT2: Magnetism	15	SBR-PCM SBR-PME+Cs
	UNIT3: Magnetic properties of materials and Maxwell's equations	15	KSM-PCM KSM-PME+Cs
	UNIT4: Transient current and Alternating current	15	TG-PCM HML-PME+Cs

Sem/paper	Chapter	Allotted hours	Teachers assigned
IV SEM	UNIT1: Superposition of two collinear harmonic oscillations and waves motion	15	HML-PCM HML-PME+Cs
	UNIT2: Sound and fluids	15	KBS-PCM KBS-PME+Cs
	UNIT3: Diffraction	15	GSM-PCM GSM-PME+Cs
	UNIT4: Statistical mechanics	15	SBR-PCM SBR-PME+Cs

Sem/paper	Chapter	Allotted hours	Teachers assigned
VI SEM Paper- VII (601)	UNIT-1: Statistical physics, free electron theory	15	BS-PCM BS-PME+Cs
	UNIT-2 : X-rays	15	SYP-PCM SYP-PME+Cs
	UNIT-3: Band Theory	15	KSM-PCM KSM-PME+Cs
VI SEM Paper- VIII (603)	UNIT-1: Relativity	15	HML-PCM HML-PME+Cs
	UNIT-2 : Astrophysics	15	GSM-PMC GSM-PME+Cs
	UNIT-3: Nuclear physics	15	KBS-PCM KBS-PME+Cs


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 H. M. LINGARAJU
 HOD, Physics
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DEPARTMENT OF ELECTRONICS
Action plan for the academic year 2018-19

1. Create a learning environment so that students feel at ease while discussing the topics covered in the syllabus.
2. The syllabus must be taught fully and convincingly so that students understand the topics and feel confident when facing the examinations.
3. The syllabus must be covered by teachers as distributed below:


Semester		Dr. Chitharanjan Rai (theory 06 hrs/week)	Prof. Vinod Phadke (theory 08hrs/week)
ODD SEMESTER	I Sem	Unit 1 Unit 3 and 4	Unit 2
	III Sem	-	Unit 1, 2, 3 and 4
	V Sem (Paper V)	Unit 1, 2, 3 and 4 (Microcontrollers)	-
	V Sem (Paper VI)	-	Unit 1, 2, 3 and 4 (Photonic devices and Power Electronics)
Semester		Dr. Chitharanjan Rai (theory 09 hrs/week)	Prof. Vinod Phadke (theory 05hrs/week)
EVEN SEMESTER	II Sem	Unit 1 and 3	Unit 2 and 4
	IV Sem	Unit 1, 2, 3 and 4 (C language and μ P 8085)	-
	VI Sem (Paper VII)	Unit 3 and 4 (Measuring Instruments and Verilog)	Unit 1 and 2 (Measuring Instruments and Verilog)
	VI Sem (Paper VIII)	Unit 2 and 3 (Antenna, Transmission lines and Wireless communication)	Unit 1 and 4 (Antenna, Transmission lines and Wireless Communication)

4. It is planned to convene a welcome function for the first-year students. The programme to be called "PARICHAYA" and it will be conducted by Second and Third year B.Sc. students. The programme to be conducted in the second week of August.
5. It is planned to encourage the students to participate in all the programmes conducted in the college.
6. We will conduct an educational tour in the last leg of the year (in the

month of Feb/March 2018) so that the students can gain some knowledge about the topic covered in the class. At the same time, we must try to imbibe a sense of pride of being a citizen of a great country of great civilization.

7. To conduct continuous evaluation methods in the form of regular tests, assignments.
8. Seminars to be conducted by the students (using PPT).
9. A farewell function to be conducted for the final year students by I and II-year students.


Dr. Chitnaranjan Rai, M.Sc., Ph.D.,
Associate Professor & Head of the Department
Department of Electronics
Kalpataru First Grade Science College
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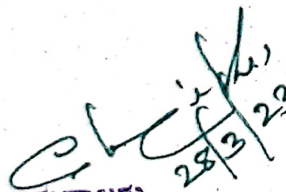

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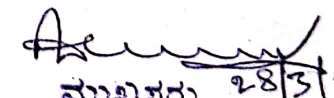
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ಕನ್ನಡ ವಿಭಾಗ

2020 - 2021 ಸಾಲಿನ ಕ್ರಿಯಾ ಯೋಜನೆ.

1. 'ಐದು ನಿಮಿಷ ಹೊಸ ಪುಸ್ತಕ ಪರಿಚಯ' ಕಾರ್ಯಕ್ರಮದಡಿಯಲ್ಲಿ ಪ್ರತಿ ತರಗತಿಯಲ್ಲಿ ಐದು ನಿಮಿಷಗಳ ಕಾಲ ಹೊಸ ಪುಸ್ತಕಗಳನ್ನು ಪರಿಚಯ ಮಾಡಿಕೊಡುವ ಕಾರ್ಯಕ್ರಮ.
2. ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಪ್ರಾದೇಶಿಕ ಅರಿವನ್ನು ಉಂಟುಮಾಡುವುದಕ್ಕಾಗಿ ಕಲಾಚಿತ್ರಗಳನ್ನು ಪರಿಚಯಿಸುವುದು.
3. ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸಂವಹನ ಕೌಶಲ್ಯ ಬೆಳೆಸುವುದಕ್ಕಾಗಿ ಪ್ರಸಕ್ತ ವಿಷಯಗಳನ್ನು ಕುರಿತು ವಿದ್ಯಾರ್ಥಿಗಳಿಂದ ಉಪನ್ಯಾಸ ಕಾರ್ಯಕ್ರಮ.
4. ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸೃಜನಶೀಲತೆಯನ್ನು ಉಂಟುಮಾಡುವುದಕ್ಕಾಗಿ 'ಪ್ರಬಂಧ ಸ್ಪರ್ಧೆ' ಏರ್ಪಡಿಸುವ ಕಾರ್ಯಕ್ರಮ.
5. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪರಿಚಯಕ್ಕಾಗಿ ತಿಪಟೂರು ಸುತ್ತಮುತ್ತಲಿನ ಸಾಹಿತಿಗಳ ಮನೆಗಳಿಗೆ ವಿದ್ಯಾರ್ಥಿಗಳಿಂದ ಭೇಟಿ ಕಾರ್ಯಕ್ರಮ
6. ಬರವಣಿಗೆ ಮತ್ತು ಆಂತರಿಕ ಅಂಕಗಳನ್ನು ನೀಡುವುದಕ್ಕಾಗಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಕಿರು ಪರೀಕ್ಷೆಗಳ ಕ್ರಿಯಾ ಯೋಜನೆಗಳು.
7. ಆಂತರಿಕ ಅಂಕಗಳಿಗಾಗಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಂದ ಪಠ್ಯ ಉಪನ್ಯಾಸ ಕಾರ್ಯಕ್ರಮ.
8. ವಿದ್ಯಾರ್ಥಿಗಳಿಗಾಗಿ ನೈತಿಕ ಶಿಕ್ಷಣದ ತರಗತಿಗಳನ್ನು ಏರ್ಪಡಿಸುವುದು.


ಪ್ರಾಂಶುಪಾಲರು
ಕಲ್ಪತರು ಪ್ರಥಮ ದರ್ಜೆ ವಿಜ್ಞಾನ ಕಾಲೇಜು
ತಿಪಟೂರು - 572 201


ಮುಖ್ಯಸ್ಥರು 28/3/2023
ಕನ್ನಡ ವಿಭಾಗ
ಕಲ್ಪತರು ಪ್ರಥಮ ದರ್ಜೆ ವಿಜ್ಞಾನ ಕಾಲೇಜು
ತಿಪಟೂರು - 572 201

DEPARTMENT OF BOTANY
Action Plan: Date:20-06-2017

SEM/PAPER	CHAPTER	CONTENTS TO BE COMPLETED/TARGET	HOURS ALLOTTED	TEACHER
I-SEM PAPER-I	Microbes	Virology- discovery -contributions of different virologists- general structure, replication of TMV,HIV and T -phage -, viral disease in plants,- Leaf curl of papaya and Bunchy top of banana.	12	PR
	Algae	bacteriophages, general characteristics of cell structure- and reproduction -vegetative, asexual reproduction	12	BMC
	Bryophytes	General characters, classification[GM Smith], Thallus organization and economic importance, General characters and classification,morphology,anatomy and reproduction in Marchantia	10	BMB
III-SEM PAPER-III	Introduction to embryology	Contribution of Indian embryologists P.Maheswari,Bhojawani and Bhatnagar,BGL Swamy and Kashyap	12	BMC
	Angiosperm flower	St and organization of flower microsporangium and development of mature anther tapetum microsporogenesis		
	Plant tissues culture	Definition and concept of totipotency .instuments used in pt tissues culture Megasporogenesis	20	PR
V-SEM PAPER-V	Taxonomy	Classification of plants- Benthem & Hooker Classification, Engler &Prontle, Cronquist system of classification	10	PR
PAPER-VI	Cytology	Plant Nomenclature- Chemo, Cyto, and Numerical Taxonomy. Herbarium techniques, Botanical gardens Fluorescent & Electron microscope- chromosome structure, nucleosome model, karyotype & ideogram, chromosomal aberrations, polyploidy Cell division- cell cycle- mitosis & meiosis and their significance, mitotic apparatus, synaptonemal complex, crossing over	16	BMC

Bacterial culture in the lab for this semester.

Raise onion plants to collect flower buds for cytological studies.

Selection of 25 to 30 students from the 3rd Bsc for the Jatrasal project with the aegis of German Jatrasal company and BAIF as an extension programme.

Hybridization training for students on 17th 1nd 18 th of July 2017

Field visit BAIF for plant collection by final-year students.

H. O. D. of Botany
Kalpataru First Grade Science College
TIPTUR - 572 201.

Lesson-Plan

(2 Hrs/Week)

Month class II B.Sc (III Semester) CBCS (PC-MTCBZ)

June- Organic Compounds Containing Nitrogen

July- Introduction to Organic chemistry

Classification of Organic Compds. based on the functional group.

Amines:- Introduction, Defn, Examples, Classification of Amines into pri, Sec. and tertiary - their G.F, F.gp and examples. Naming of 1°, 2° and 3° amines according to IUPAC System.

General methods of preparation:- from (i) Alkyl halides (ii) Nitro compds (iii) Hofmann's Bromamide reaction (iv) Gabriel's phthalimide synthesis.

Chemical properties:- Carbylamine reaction, Reaction with alkyl halides, Acylation reaction, Hofmann's elimination with mechanism, reaction with HNO_2 .

Distinguishing tests for 1°, 2° and 3° amines by Hofmann's method. and. Hinsberg's method.

05 Hrs

Aug- Diazonium salts:- Diazotisation-Defn, preparation of BDC with mechanism. Synthetic applications of BDC (i) Conversion to Benzene and phenol, Sandmeyer's reaction, reduction to phenyl hydrazine. Coupling reaction-formation of azo dyes- p-hydroxy azobenzene and 1-phenylazo-2-naphthol.

Preparation of Methyl orange-Reason

for colour change with pH.

Diazo Compds:- Synthesis of Diazomethane
Synthetic applications of Diazomethane

(i) Synthesis of Methyl ester (ii) methyl Ketones from aldehydes (iii) cyclopropane

Nitro Compds:- preparation of alkyl nitrates from alcohols and alkyl halides, prepn. of m-dinitrobenzene and TNT, redn. products of nitrobenzene in various media. (i) H_2/Pt (or) Ni , $\text{Sn}/\text{conc. HCl}$ or LiAlH_4 in ether. (ii) $\text{Zn}/\text{NH}_4\text{Cl}$.

05 Hrs

Sep- Heterocyclic Compds:-

Oct 10th Introduction, Classification, nomenclature
2017- Methods of preparation, Furan-from

muic acid and furfural. Thiophene-

from acetylene and n-butane, Pyrrole-

from acetylene and ammonium mureate.

pyridine-from Nicotinic acid and

acetylene, Quinoline-by Skraup

syntheses, Indole by Fischer synthesis,

properties of furan, pyrrole, Thiophene

Nitration of Indole and Quinoline

Chichibabin reaction of pyridine

Aromaticity- Conditions, aromaticity

of furan, thiophene pyrrole and pyridine

Comparison of Basicity of pyridine and

pyrrole.

05 Hrs.

Month. class III B.Sc (V Semester) (2 Hrs/Week)
June- paper-V (Organic Chemistry)
July- Natural products (PCM+CBZ)
Terpenes:- Introduction, Occurrence, Ingold's Isoprene rule, its importance, classification with examples, Stral. elucidation and synthesis of Citral and Zingiberene, etc and uses of Limonene, Menthol, Camphor, β -Carotene, Vit-A.
Alkaloids: Introduction, classification, general characteristics, etc and functions of Nicotine, Curine, Conine, Pilocarpine, Stral. elucidation and synthesis of Nicotine from 3-Cyanopyridine
05 Hrs.
Aug- pheromones:- Introduction, classification, sources, etc and uses of Grandisol and Bombykol.
Drugs:- Defn, chemotherapy, defn, classification of drugs - Antipyretic, Analgesic, Antibacterial drug, Anti-malarial drug, Antibiotic, Tranquillizers, Hypnotics.
Synthesis and uses of paracetamol, Sulphamamide, chloramphenicol, Diclofenac and Rantidine.
05 Hrs.
Sep- Pesticides:- Introduction, Types, Synthesis of DDT, Gammaxane, Chloranil, Atrachlor.
Oct 10th 2017 Cosmetics:- Introduction, classification, Ingredients and use of different Cosmetics, Harmful effects.
Foods:- Introduction, classification,

Definitions of food additive, food preservative, artificial sweeteners, Antioxidant, food Colours, junk foods, harmful effects on the human body, etc of BHA and BHT, artificial ripening of fruits and its side effects.

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Month
Jan-
2018

class III B.Sc (VI Semester) (PCM+CBZ)
paper-VIII (Biochemistry) (4 Hrs/Week)
Lipids:- Defn, classification - Simple, Compound and derived lipids, oils and fats - Defn, examples and differences, Strs of fatty acids - saturated and unsaturated fatty acids, essential fatty acids, omega-3-fatty acids, Bio-Importance, Acyl glycerols - Strs and biological importance of triglycerides, properties - Hydrogenation, Saponification, Iodine no, rancidity - types and prevention.
Phospholipids:- Strs and biological importance.
Glycolipids and sterols - Strs and biological importance of cholesterol.
Nucleic acids:- Types, Components, bases, Sugars and phosphate group.
Nucleosides and Nucleotides:- Defn, Strs, polynucleotides - types and Strs, Str of DNA (Watson and Crick model),

biological importance of DNA,
RNA - Types and roles, Central dogma of
mole. biology, genetic code - features,
Replication, transcription and translation.
10 Hrs.

Feb-2018 Enzymes:- Introduction, General characteristics
of enzymes, classification according
to IUB with examples (6 classes), Active
site - Defn, characteristics, enzyme
specificity - Absolute, Group and Stereo-
specificity. Mechanism of enzyme action -
Fischer's and Koshland's models, Co-enzymes
and co-factors and their role in
biological reactions.

Factors affecting enzyme action -
effect of pH , temp., $[E]$ and $[S]$ on the
rate of enzyme catalysed reactions,
MM equation, significance of K_m
and V_{max} , Enzyme Inhibition - Defn.
and types.

Bio-Inorganic chemistry:- Introduction,
Role of metal ions in biological systems
(Na^+ , K^+ , Mg^{2+}), Na^+/K^+ pump, Role of
 Mg^{2+} ions in energy production and
in chlorophyll. Role of Ca^{2+} in blood
clotting, stabilization of protein str.
and its role in bones.

March- Metabolism:- Defn, types - Catabolism
April- and Anabolism, Comparison, Stages
2018 in catabolism.

Carbohydrate metabolism -
EMP pathway, reactions and enzymes

ATP yield during glycolysis.
Fates of Pyruvate. - Lactate formation
and Ethanol production; Aerobic Oxid.
of acetyl-CoA through Kreb's cycle
reactions, Co-enzymes and ATP yield.
Fatty acid Metabolism:- Activation,
mechanism of β -oxidation of fatty acids,
Calculation of ATP yield.

AA metabolism:- Transamination,
deamination & decarboxylation with
exs, Calorific value of food. Inter-
relationships in the metabolic pathways
of proteins, fats and Carbohydrates.

08 Hrs.

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