



PSGR Krishnammal College for Women



DEPARTMENT OF BOTANY

CHOICE BASED CREDIT SYSTEM (CBCS) & LEARNING OUTCOMES- BASED CURRICULAR FRAMEWORK (LOCF)

(Semesters – I and II)

**BACHELOR OF BOTANY
2021 – 2024 BATCH**



PROGRAMME LEARNING OUTCOMES (PLO's)

Courses within the Botany curriculum will address goals and objectives at the appropriate level through measurable student learning outcomes developed by course instructors

PLO 1: Students will be able to remember, comprehend, apply, analyze and synthesize the core concepts in botany, like evolution, biodiversity, structure and function, information flow, exchange, and storage, pathways and transformations of energy and matter.

PLO 2: Students will develop the ability to apply and understand the defining characteristics of various processes of science and its uncertainty.

PLO 3: Students will also develop the ability to practice the skills of the scientific method. Engage in research projects and apply the quantitative skills to biological problems.

PLO 4: Students will be able to communicate and collaborate within and outside of biology and tap into the interdisciplinary nature of science.

PLO 5: Students should understand the relationship between science and society. Evaluate the impact of science as well as ethical implications of science. Explore how science is applied in a social context.

PROGRAMME SPECIFIC OBJECTIVES (PSOs)

At the end of the programme the student will

PSO1: Obtain strong foundation in classical botany, interdisciplinary subjects such as Bioinformatics, Biostatistics, and advance topics in Cell and Molecular biology, Biochemistry and Plant Biotechnology.

PSO2: Build capacity in Horticulture and production of cut flowers from the skill based courses offered.

PSO3: Carry out individual short term internship and project work to acquire knowledge on research using basic and advanced instruments/equipments.

PSO4: Find opportunities for higher studies in top ranking universities.

PSO5: Gain career in teaching/research in Botany.



**DEPARTMENT OF BOTANY
CHOICE BASED CREDIT SYSTEM (CBCS) & LEARNING OUTCOMES- BASED CURRICULAR
FRAMEWORK (LOCF)**

**BACHELOR OF BOTANY (2021-2024 Batch)
SYLLABUS & SCHEME OF EXAMINATION**

Applicable to students admitted during the academic year 2021 – 2022 onwards (I & II Sem)

SEM	Part	Subject Code	Title of the Paper		Instruction hours/week	Contact hours	Tutorial	Duration of Examination	Examination Marks			Credits	
									CA	ESE	TOTAL		
I	I	TAM2101/ HIN2101/ FRE2101	Language T/H/F Paper I	Language	6	86	4	3	50	50	100	3	
	II	ENG2101	English Paper-I	English	6	86	4	3	50	50	100	3	
	IIIA		PL21C01	Core Paper I - Microbiology & Plant diversity I	CC	6	86	4	3	50	50	100	5
			PL21CP1	Core Practical – I	CC	3	45	-	-	-	-	-	-
			CE21A01/ PS21A01/ TH21A01	Allied Chemistry for Biologists Paper-I/ Allied Physics Paper-I/ Allied Paper I -Mathematical Statistics - I	GE	4	56	4	3	50	50	100	4
						7	101	4	3	50	50	100	5
		CE21AP1 /PS21AP1	Allied Practical Chemistry / Physics	GE	3	-	-	-	-	-	-	-	
IV		NME19B1/A1 NME21ES/ NC21NC01	Basic Tamil/Advanced Tamil** Introduction to Entrepreneurship/NCC- Organization and Integration	AEC	2	-	-	3	50/ 50/ 100	50/ 50	100	2	
II	I	TAM2102/HIN2 102/FRE2102	Language T/H/F Paper - II	Language	6	86	4	3	50	50	100	3	
	II	ENG2102	English Paper-II	English	5	71	4	3	50	50	100	3	
	IIIA		PL21C02	Core Paper II – Plant diversity II (Bryophytes, Pteridophytes, Gymnosperms, and Palaeobotany)	CC	5	71	4	3	50	50	100	5
			PL21CP1	Core Practical I (Core Paper I & II)	CC	3	45	-	3	50	50	100	4
			CE21A02/ PS21A02/ TH21A02	Allied Chemistry for Biologists Paper-II / Physics Paper –II / Allied Paper II - Mathematical Statistics II	GE	5	71	4	3	50	50	100	4
						8	116	4	3	50	50	100	5

IIIA	CE21AP1/ PS21AP1	Allied Chemistry Practical/Allied Physics Practical	GE	3	45	-	3	50	50	100	2
IV	OPS1808	Open course-self study online courses		-			-	-	-	-	-
	NME19B2/A2	Basic Tamil/Advanced Tamil**	AEC	-			-	-	-	-	-
IV	21PELS1/ NC21NC02	Professional English for Life Sciences	AEC	3	45	3	2	50	50	100	2
IIIB	NM12GAW	Foundation Course –1 (General awareness)		Self study (Online)				100	-	100	Grade

*Allied theory papers with practicals will be evaluated for 50/50 and converted into 30/45; **Outside regular class hours

CC – Core Courses

CA – Continuous Assessment

GE – Generic Elective

ESE - End Semester Examination

AEC – Ability Enhancing Course

CIA PATTERN

1. Theory

INTERNAL COMPONENT	50 / 50 = 100 Marks
CIA I	7
CIA II	7
MODEL EXAM	10
ASSIGNMENT	4
SEMINAR	5
QUIZ	4
CLASS PARTICIPATION	5
APPLICATION OF KNOWLEDGE, INNOVATION AND CREATIVITY	5
ATTENDANCE	3
TOTAL	50 Marks

RUBRICS

Rubrics for 5 marks

(Application Oriented/Innovation/Creativity Assignment)

Criteria	Marks
Originality	2
Presentation	2
References or Library Resources	1
Total	5

ASSIGNMENT/ SEMINAR

Maximum - 20 Marks (converted to 4 marks)

Criteria	4 Marks	3 Marks	2 Marks	1 Mark
Focus Purpose	Clear	Shows awareness	Shows little awareness	No awareness
Main idea	Clearly presents a main idea.	Main idea supported throughout	Vague sense	No main idea
Organisation: Overall	Well planned	Good overall organization	There is a sense of organization	No sense of organization
Content	Exceptionally well presented	Well presented	Content is sound	Not good
Style: Details and Examples	Large specific examples and detailed descriptions	Some use of examples and detailed descriptions	Little use of specific examples and details	No use of examples

CLASS PARTICIPATION

Maximum - 20 Marks (converted to 5 marks)

Criteria	5 Marks	4 Marks	3 Marks	2 Marks	1 Mark
Level of Engagement in Class	Student proactively contributes to class by offering ideas and asks questions more than once per class.	Student proactively contributes to class by offering ideas and asks questions once per class	Student contributes to class and asks questions occasionally	Student rarely contributes to class by offering ideas and asking no questions	Student never contributes to class by offering ideas
Listening Skills	Student listens when others talk, both in groups and in class. Student incorporates or builds off of the ideas of others.	Student listens when others talk, both in groups and in class.	Student listens when others talk in groups and in class occasionally	Student does not listen when others talk, both in groups and in class.	Student does not listen when others talk, both in groups and in class. Student often interrupts when others speak.

Behavior	Student almost never displays disruptive behavior during class	Student rarely displays disruptive behavior during class	Student occasionally displays disruptive behavior during class	Student often displays disruptive behavior during class	Student almost always displays disruptive behavior during class
Preparation	Student is almost always prepared for class with required class materials	Student is usually prepared for class with required class materials	Student is occasionally prepared for class with required class materials	Student is rarely prepared for class with required class materials	Student is almost never prepared for class

MAPPING OF PLOs WITH CLOs

COURSE	PROGRAMME OUTCOMES				
	PLO1	PLO2	PLO3	PLO4	PL05
COURSE 1 – PL21C01					
CLO1	S	S	S	S	S
CLO2	S	S	S	M	M
CLO3	M	S	M	S	S
CLO4	S	M	S	M	M
CLO5	S	M	M	S	S
COURSE – PL21C02					
CLO1	S	S	S	M	M
CLO2	S	S	S	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M
CLO5	S	S	S	S	S
COURSE - PL21CP1					
CLO1	S	S	M	M	S
CLO2	S	S	M	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M
COURSE- 21PELS1					
CLO1	S	S	S	M	M
CLO2	S	S	S	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M
CLO5	S	S	S	S	S

2. Practical

INTERNAL COMPONENT	50 : 50 = 100 Marks
Lab Performance (Practical + Interaction) (12+12)	24
Regularity in record submission	8
Model Examination	15
Attendance	3
Total	50 marks

3. ALC 25/75 pattern:

INTERNAL COMPONENT	25 / 75 = 100 Marks
THEORY	
CIA	10
Model exam	15
Total	25 marks

4. Project:

INTERNAL COMPONENT	20 / 80 = 100 Marks
Internal	20 (Review I: 5 Review II: 10 Review II: 5)
ESE : Evaluation of Project + Viva – voce examination	60+20
Total	100 Marks

5. SBS 25/75 pattern:

INTERNAL COMPONENT	25 / 75 = 100 Marks
THEORY	
CIA I	5
CIA II	5
Model exam	15
Total	25 marks

COURSE NUMBER	COURSE NAME	CATEGORY	L	T	P	CREDIT
PL21C01	Core Paper I - Microbiology & Plant diversity I	CORE	86	4	-	5

Preamble

To study the characteristics and life cycle of Bacteria, Virus, Algae, Fungi and Lichens.
 To study various plant diseases and their control measures.
 To impart knowledge on Artificial Intelligence and its types.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Classify the microbes and understand the characteristics of Bacteria and viruses	K1
CLO2	Acquire knowledge about the diversity of Algae based on structure and reproduction	K2
CLO3	Know about the morphology, reproduction and economic importance of fungi and lichens	K2
CLO4	Identify the causes, symptoms and control measures of plant diseases	K2
CLO5	Familiarize with Artificial intelligence and its types.	K3

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	M	M
CLO3	M	S	M	S	S
CLO4	S	M	S	M	M
CLO5	S	M	M	S	S

S- Strong; M-Medium

Syllabus

Unit-I Microbiology

19 hrs

History and scope of microbiology. Structure and reproduction of viruses. Bacteria: Morphology, ultra structure, growth and reproduction. Bacterial classification (Bergey, 1923). Gram staining. Study of bacterial growth curve. Microbial technique - methods of sterilization, culture media and pure culture techniques.

Unit-II Algae

20 hrs

General characteristics of algae, Classification (Fritsch, 1935). A detailed study of the structure, reproduction and life cycle of *Anabaena*, *Chlamydomonas*, *Oedogonium*, *Ectocarpus*, and *Polysiphonia* (developmental studies on sex organs not required). Economic importance of Algae.

Unit-III Fungi and Lichens

21 hrs

General characteristics of Fungi. Classification (Alexopoulos and Mims, 1972). Detailed study of morphology and reproduction of *Albugo*, *Saccharomyces*, *Penicillium*, *Puccinia*, *Polyporus* and *Aspergillus* (developmental studies on sex organs not required). Economic importance of Fungi.

Lichens: General characteristics, classification (Alexopoulos and Mims, 1979), reproduction and economic importance of Lichens. Detailed study of *Usnea*.

Unit- IV Plant Pathology

16 hrs

Classification of diseases– general symptoms. Penetration and disease development. Morphological and biochemical defense mechanisms in plants. A detailed study of the following plant diseases – Mosaic disease of tobacco, Citrus canker, Late blight of Potato, Red rot of sugarcane, Tikka disease of groundnut (causal organisms, symptoms, disease cycle and bio-control measures).

Unit-V

10 hrs

Artificial Intelligence-Definition; Types- Weak AI or Narrow AI, General AI and Super AI. Brief introduction to solutions to real-world problems by implementing the following AI processes/ techniques: 1-Machine Learning, 2- Deep Learning, 3- Natural Language Processing and 4- Robotics. AI to reintegrate biology: Biological knowledge discovery and assembly, Behavioural ecology, Genes to phenotypes, Prediction, evolution, and control of infectious diseases.

Text Books

S. No.	Authors	Year of publication	Title of the book	Publishers
1.	Vashishta, B.R., Sinha, A.E and Singh, V.P	2013	Algae	S Chand and Company Ltd., New Delhi
2.	Sharma O.P	2011	Algae	Tata Mc Graw-Hill Education
3.	Sharma O.P	2011	Fungi and allied microorganisms	Tata Mc Graw-Hill Education
4.	Purohit, S.S	2017	Microbiology- Fundamentals & Applications (7 th edition)	Rastogi Publications, Meerut
5.	Pandey, B.P	2005	College Botany Vol I	S Chand & Company, New Delhi.
6.	Vashishta B.R./ Sinha A.K. & Kumar Adarsh	2016	Botany for degree students Fungi	S. Chand and Company Ltd., New Delhi

Reference Books

S. No.	Authors	Year of publication	Title of the book	Publishers
1.	Alexopoulos, CJ, Mims CW & Blackwell M	2007	Introductory Mycology	John Wiley & Sons, New York
2.	Gangulee, HC. & Kar AK	2011	College Botany, Vol-II	New Central Book Agency Pvt. Ltd. Calcutta.
3.	Mehrotra, RS & Aneja, KR	2015	An introduction to Mycology, 2nd Ed.,	New Age International Private Limited, New Delhi

Online course materials

1. <https://www.researchgate.net/publication/354185787>
2. <https://www.edureka.co/blog/types-of-artificial-intelligence/>
3. <https://www.mygreatlearning.com/blog/what-is-artificial-intelligence/#WhatisArtificialIntelligence>

Pedagogy

E-content, Lecture, Power point presentation, Seminar, Assignment, Quiz, Group Discussion, Video / Animation

Course Designers

1. Dr. C. Krishnaveni
2. Dr. M. Kanchana
3. Dr. H. Rehana banu

COURSE NUMBER	COURSE NAME	CATEGORY	L	T	P	CREDIT
PL21C02	Core Paper II - Plant Diversity II (Bryophytes, Pteridophytes, Gymnosperms and Palaeobotany)	CORE	71	4	-	5

Preamble

To study the classification, characteristics and life cycle of Bryophytes, Pteridophytes and Gymnosperms

To study the process of fossilization, geo-chronology and radio-carbon dating

Course Outcomes

On the successful completion of the course, students will be able to

CLO Number	CO Statement	Knowledge Level
CLO1	Classify Bryophytes, understand its lifecycle	K2
CLO2	Understand the characteristics of Pteridophytes and their classification	K2
CLO3	Assess the evolutionary features in Pteridophytes	K3
CLO4	Understand the characteristics of Gymnosperms and their classification	K2
CLO5	Interpret the evolutionary sequence with the knowledge of the geological time scale	K3

Mapping with Programme Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	M	M
CLO2	S	S	S	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M
CLO5	S	S	S	S	S

S- Strong; M-Medium

Syllabus

Unit I - Bryophytes

14hrs

General characteristics, Classification of Bryophytes (Reimers-1954), occurrence, distribution, common species, structure and reproduction of *Marchantia*, *Anthoceros* and *Funaria* (developmental studies on sex organs not required). Economic and ecological importance of Bryophytes.

Unit II - Pteridophytes

14hrs

General characteristics and Classification of Pteridophytes (Sporne, 1975). Stelar Evolution Homospory, heterospory and seed habit. Economic importance of Pteridophytes.

Unit III – Pteridophytes (Contd..)

14hrs

A detailed study of morphology, anatomy and reproduction of *Psilotum*, *Lycopodium*, *Equisetum* *Marsilea* (developmental studies on sex organs not required).

Unit IV- Gymnosperms

14hrs

General characteristics, distribution and classification (Sporne, 1965). Detailed study of morphology, anatomy, reproduction of *Cycas*, *Pinus* and *Gnetum* (developmental studies on sex organs not required). Economic importance of Gymnosperms.

Unit V- Palaeobotany

15hrs

Fossils, fossilization process, Types of fossils: compression, impression, petrification, coal balls. Geological time scale. A detailed study of external and internal morphology and reproduction in *Rhynia*, *Lepidodendron*, *Lepidocarpan*, and *Calamites*.

Text Books

S.No	Authors	Year of publication	Title of the book	Publishers
1.	Vasishta.B.R , Sinha & Adarsh Kumar	2012	Botany for Degree students –Bryophyta	S Chand And Company Ltd., New Delhi
2.	Sharma O.P	2011	Bryophyta	Tata Mc Graw-Hill Education
3.	Sharma O.P	2011	Pteridophyta	Tata Mc Graw-Hill Education
4.	Vasishta PC, Sinha AK & Anilkumar	2005	Botany for degree students,	S Chand And Company Ltd., New Delhi.
5.	Pandey, B.P	2003	College Botany Vol II	S Chand & Company, New Delhi

Reference Books

S.No	Authors	Year of publication	Title of the book	Publishers
1.	Arnold. C. A.	2013	An Introduction to Palaeobotany	McGraw Hill Book Company, London
2.	Sporne, KR	1974	The Morphology of Gymnosperms	Hutchinson & Co., London.
3.	Sporne, KR	2015	The Morphology of Pteridophytes	Hutchinson & Co., London
4.	Steward.N.Wilson & Rothwell, W. Gar	2005	Palaeobotany and evolution of Plants	Cambridge University Press

Pedagogy

E-content, Lecture, Power point presentation, Seminar, Assignment, Quiz, Group Discussion, Video / Animation

Course Designers:

1. Dr. C. Krishnaveni
2. Dr. K.S. Tamilselvi
3. Dr. B. S. Chithra Devi
4. Dr. R. Sumathi

COURSE NUMBER	COURSE NAME	CATEGORY	L	T	P	CREDIT
PL21CP1	Core Practical – I (Theory Paper - I and II – Microbiology, Plant diversity I and Plant Diversity II)	CORE	-	-	90	4

Preamble

- To observe, characterize and identify the different types of Algae, Fungi, Lichens, Bryophytes, Pteridophytes, Gymnosperms and fossilized plants.
- To identify and differentiate the various plant diseases and the causative organisms.
- To isolate microorganisms from soil and establish pure cultures
- To distinguish between Gram positive and Gram negative bacteria

Course Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Remember and differentiate the different forms of Algae, Fungi, Lichens, Bryophytes, Pteridophytes, Gymnosperms and fossilized plants.	K1
CLO2	Know the host – pathogen interactions	K2
CLO3	Prepare sterile microbial culture media and demonstrate pure culture techniques	K3
CLO4	Interpret the industrial impact of fermentation process	K3

Mapping with Programme Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	M	S
CLO2	S	S	M	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M

S- Strong; M-Medium

Syllabus

45 Hrs

Algae - *Anabaena, Chlamydomonas, Oedogonium, Ectocarpus* and *Polysiphonia*

Fungi - *Albugo, Saccharomyces, Penicillium, Puccinia, Polyporus* and *Aspergillus*

Lichens - *Usnea*

Plant pathology- Mosaic disease of tobacco, Citrus canker, Late blight of potato, Red rot of sugarcane, Tikka disease of groundnut.

Microbial Techniques

Sterilization techniques.

Preparation of culture media: Nutrient broth and Nutrient Agar medium

Potato Dextrose Agar Medium

Preparation of slants

Soil dilution, Plating techniques, Enumeration of bacteria and fungi.

Microscopic observation of fungi-Lactoglycerol trypan blue staining,

Microscopic observation of bacteria- Gram staining

Fermentation using yeast

45 Hrs

Study of the following types

Bryophyta - *Marchantia, Anthoceros* and *Funaria*.

Pteridophyta - *Psilotum, Lycopodium, Equisetum* and *Marsilea*

Gymnosperms - *Cycas, Pinus* and *Gnetum*

Palaeobotany - *Rhynia, Lepidodendron, Lepidocarpan* and *Calamites*

Course Designers:

1. Dr. C. Krishnaveni
2. Dr. M. Kanchana
3. Dr. K.S. Tamil Selvi
4. Dr. H. Rehana banu
5. Dr.E. Uma

COURSE NUMBER 21PELS1	COURSE NAME SEMESTER – II PROFESSIONAL ENGLISH FOR LIFE SCIENCES	Category	L	T	P	Credit
			40	5	--	2

Objectives

1. To develop the language skills of students by offering adequate practice in professional contexts.
2. To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
3. To focus on developing students' knowledge of domain specific registers and the required language skills.
4. To develop strategic competence that will help in efficient communication
5. To sharpen students' critical thinking skills and make students culturally aware of the target situation.

Course Outcomes

On the successful completion of the course, students will be able to

CLO Number	CO Statement	Knowledge Level
CLO1	Recognise their own ability to improve their own competence in using the language	K1
CLO2	Use language for speaking with confidence in an intelligible and acceptable manner	K2
CLO3	Read independently unfamiliar texts with comprehension and understand the importance of reading for life	K3
CLO4	Understand the importance of writing in academic life	K3
CLO5	Write simple sentences without committing error of spelling or grammar	K3

(Outcomes based on guidelines in UGC LOCF – Generic Elective)

Mapping with Programme Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	M	M
CLO2	S	S	S	M	M
CLO3	S	S	M	M	S
CLO4	S	S	M	M	M
CLO5	S	S	S	S	S

S- Strong; M-Medium

UNIT 1: COMMUNICATION

8 hours

Listening: Listening to audio text and answering question listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages –Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 2: DESCRIPTION

8 hours

Listening: Listening to process description.-Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning- Reading passages on products, equipment and gadgets.

Writing: Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.

Vocabulary: Register specific -Incorporated into the LSRW tasks.

UNIT 3: NEGOTIATION STRATEGIES

8 hours

Listening: Listening to interviews of specialists / Inventors in fields (Subject specific)

Speaking: Brainstorming. (Mind mapping). Small group discussions (Subject- Specific)

Reading: Longer Reading text.

Writing: Essay Writing (250 words)

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 4: PRESENTATION SKILLS

8 hours

Listening: Listening to lectures.

Speaking: Short talks.

Reading: Reading Comprehension passages

Writing: Writing Recommendations Interpreting Visuals inputs

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 5: CRITICAL THINKING SKILLS

8 hours

Listening: Listening comprehension- Listening for information.

Speaking: Making presentations (with PPT- practice).

Reading : Comprehension passages –Note making. Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)

Writing: Problem and Solution essay– Creative writing –Summary writing

Vocabulary: Register specific - Incorporated into the LSRW tasks

Textbook

S.No.	Authors	Title of the Book	Publishers	Year of Publication
1	Tamil Nadu State Council for Higher Education (TANSICHE)	English for Life Sciences Semester 1	--	--

Reference Books

S.No.	Authors	Title of the Book	Publishers	Year of Publication
1	Sreedharan, Josh	The Four Skills for Communication	Foundation books	2016
2	Pillai, G Radhakrishna, K Rajeevan, P Bhaskaran Nair	Spoken English for you	Emerald	1998
3	Pillai, G radhakrishna, K Rajeevan, P Bhaskaran Nair	Written English for you	Emerald	1998

Evaluation pattern : Internal 50 marks
ESE 50 marks

NOTE :

Internals 5 tests x 10 marks each =50 marks

Test 1 : Listening

Test 2 : Speaking

Test 3 : Reading

Test 4 : Listening

Test 5 : Speaking

ESE : Only Reading, Writing and Vocabulary components from all 5 units

Question Paper pattern for ESE

Section A : $5 \times 2 = 10$ marks

Section B : $4/6 \times 5 = 20$ marks

Section C : $2/3 \times 10 = 20$ marks

Total = 50 Marks