

XII - STANDARD QUESTION PAPER DESIGN – BIO-BOTANY

Subject : Biology : Maximum Marks : 150 (Bio-Botany 75 and Bio-Zoology 75)
Time allowed : 3 Hrs. (Bio-Botany Part 1 ½Hrs. and Bio-Zoology Part 1 ½Hrs.)

1. Weightage to learning outcome

S.No.	Categories	Marks	Percent
1	Knowledge	36	30
2	Understanding	47	40
3	Application	30	25
4	Skill	06	05
	Total	119	100

Note : 1. Total mark is 119 inclusive of choice.

2. While preparing question paper, there may be variation in weightage of categories from 2 to 5 percent.

2. Weightage to various types of questions

Sl.No.	Type of Questions	Marks for each question	Total number of questions	No. of questions to be answered	Total marks
1.	Section A (MCQ)	1	14	14	14
2.	Section B (VSA)	3	10	07	21
3.	Section C (SA)	5	07	04	20
4.	Section D (LA)	10	04	02	20
	Total	-	35	27	75

MCQ – Multiple Choice Question, VSA – Very Short Answer, SA – Short Answer and

LA – Long Answer

Note : 1. While preparing multiple choice questions, the question paper setter should not give options like **“none of the above”** and **“both A and B”**.

2. The options to be given are selected only from the text contents. Avoid unfamiliar, irrelevant and non-textual matter.

3. There should not be any ambiguous options and **there must be only one appropriate answer** among the four alternatives.

4. Questions are to be framed in such a manner that the candidates should write the **VSA within 3 minutes, SA within 6 minutes and LA within 15 minutes.**

3. Weightage to units

Sl. No.	Units	Marks				Total marks
		MCQ	VSA	SA	LA	
1.	Taxonomy of Angiosperms	3	6	5	10	24
2.	Anatomy	2	6	5	10	23
3.	Cell Biology and Genetics	2	3	5	-	10
4.	Biotechnology	2	3	5	10	20
5.	Plant Physiology	3	9	10	10	32
6.	Biology in Human Welfare	2	3	5	-	10
	Total	14	30	35	40	119

4. Levels of questions

S.No.	Level of questions	Percent
1	Easy type	50
2	Average level	40
3	Difficult level	10

- Note :**
- The level of difficulty varies from individual to individual. The question paper should be a balanced one on the basis of general expectations from the group as a whole.
 - The question paper setter is strictly instructed to follow this design of question and there should not be any deviation.

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Time allowed : 1½ Hrs

Total marks including options : 119

Total marks for actual number of questions to be answered 75

Unit No.	Content	Knowledge				Understanding				Application				Skill				Total Marks	
		MCQ	VSA	SA	LA	MCQ	VSA	SA	LA	MCQ	VSA	SA	LA	MCQ	VSA	SA	LA		
1.	Taxonomy of Angiosperms	-	-	-	10 (1)	1 (2)	3 (1)	-	-	1 (1)	3 (1)	5 (1)	-	-	-	-	-	-	24
2.	Anatomy	-	3 (1)	5 (1)	-	-	-	-	10 (1)	1 (2)	-	-	-	-	3 (1)	-	-	-	23
3.	Cell Biology and Genetics	-	-	-	-	-	-	5 (1)	-	1 (2)	-	-	-	-	3 (1)	-	-	-	10
4.	Biotechnology	1 (1)	-	-	10 (1)	-	3 (1)	-	-	1 (1)	-	5 (1)	-	-	-	-	-	-	20
5.	Plant Physiology	1 (1)	3 (1)	-	-	-	3 (1)	5 (2)	10 (1)	1 (2)	3 (1)	-	-	-	-	-	-	-	32
6.	Biology in Human Welfare	-	3 (1)	-	-	1 (1)	-	-	-	1 (1)	-	5 (1)	-	-	-	-	-	-	10
	Total	1 (2)	3 (3)	5 (1)	10 (2)	1 (3)	3 (3)	5 (3)	10 (2)	1 (9)	3 (2)	5 (3)	-	-	3 (2)	-	-	-	119
	Total	36				47				30				06				119	

Note : 1. MCQ – Multiple Choice Question, VAS – Very Short Answer, SA – Short Answer and LA – Long Answer.

2. As the scope for framing questions under the categories such as **understanding and application in this subjects is meager**, the question paper setter has to choose additional questions from other categories.

3. Figures within the brackets represent the number of questions and the figures outside the brackets represent marks.

4. (i) Number of **one mark MCQs** is 14 and to be answered is all. There is no choice.

(ii) Number of **three marks questions** to be answered is 7 out of 10.

(iii) Number of **five marks questions** to be answered is 4 out of 7. **Answer to one five mark question is compulsory. The compulsory question is the choice of question paper setter.**

(iv) Number of **ten marks questions** to be answered is 2 out of 4 – **open choice.**

5. The ten marks question may be a **straight single question or it may be split up into two five marks questions.**