

प्रश्न-पत्र बोर्ड द्वारा निर्धारित पुस्तकों से ही सैट किया जाएगा। कृपया अध्यापकगण बोर्ड द्वारा निर्धारित पुस्तकें ही पढ़ाएँ।

DESIGN **QUESTION PAPER**

Subject : **Biotechnology**
Paper : **Annual or Supplementary**
Class : **12th** **Year 2018-19**
Time : **3 Hrs.**
Marks : **60**

1. Weightage to Objectives:

Objective	K	U	A	S	Total
Percentage of marks	40	30	20	10	100
Marks	24	18	12	6	60

2. Weightage to Form of Questions:

Forms of Questions	E	SA	VSA	O	Total
No. of Questions	03	05	09	12	29
Marks Allotted	15	15	18	12	60
Estimated Time	50	45	55	30	180

3. Weightage to Content:

	<u>Units/Sub-Units</u>	<u>Marks</u>
	Unit V : Protein and Gene Manipulation	
1.	Chapter – I : Protein Structure and Engineering	10
2.	Chapter – II : Recombinant DNA Technology	10
3.	Genomics and Bioinformatics	10
	Unit VI : Cell Culture Technology	
4.	Chapter – I Microbial Culture and Applications	10
5.	Chapter – II Plant cell culture and Applications	10
6.	Chapter – III Animal Cell culture and Applications	10
	Total	60

4. Scheme of Sections : X X X X
5. Scheme of Options : Internal Choice in long answer question i.e. essay type in two questions.
6. Difficulty level : Difficult : 10 % marks
Average : 50 % marks
Easy : 40 % marks

Abbreviations: K (Knowledge), U (Understanding), A (Application), S (Skill), E (Essay Type), SA(Short Answer Type), VSA (Very Short Answer Type), O (Objective Type)