

CLASS: XI

TIME: 3 HRS

SUBJECT: BIOLOGY

MM: 70

INSTRUCTIONS :

- i. There are total 27 questions and four sections in the question paper. All the questions are compulsory.
- ii. Section A contains question number 1 to 5, very short answer type questions of 1 mark each.
- iii. Section B contains question number 6 to 12, short answer type I questions of 2 marks each.
- iv. Section C contains question number 13 to 24; short answer type II questions of 3 mark each.
- v. Section D contains question number 25, 26 and 27 questions of 5 marks each.

Q. No	Question	Marks
SECTION A		
1	What are stilt roots ? Give 2 examples	1
2	What is Activation energy ?	1
3	What are Bacteriophages?	1
4	What is metabolism?	1
5	What are cofactors?	1
SECTION B		
6	What are Heterocysts? Where they are found?	2
7	Write the general features of kingdom fungi.	2
8	Describe the structure of nerve cell with the help of labeled diagram.	2
9	Write the difference between root hairs and stem hairs?	2
10	Name the essential and accessory whorls of a flower? OR Answer the following with reference to anatomy of dicot stem: a) How are xylem vessels arranged? b) What type of cells constitute the pith?	2
11	Define the following: a) Binomial nomenclature b) Dikaryon	2
12	What is competitive inhibition? Explain with an enzyme.	2
SECTION C		
13	Write the general features of Cyclostomes.	3
14	Define Placentation. Explain the various types of placentation seen in plants. OR What is Phyllotaxy? Explain the various types of Phyllotaxy	3
15	Define Hypogynous , Perigynous and Epigynous flowers.	3
16	Show the internal structure(T.S) of dicot root with the help of neat labeled diagram.	3
17	Write the significance of Meiosis.	3
18	Describe the different steps involved in the catalytic cycle of an enzyme action.	3
19	What is mesosome in a prokaryotic cell? Mention the function that it performs.	3
20	Explain the excretory system of Cockroach in detail.	3
21	Difference between RER & SER..	3
22	What is double fertilization? What are the products of double fertilization?	3
23	Show the digestive system of Cockroach with the help of labeled diagram.	3
24	Draw the structure of a) Glucose b) ribose c) Aminoacids	3
SECTION D		
25	Describe the structure of DNA and mention it's function. OR Explain the primary, secondary, tertiary and quaternary structure of protein molecule with example.	5

26	Explain the various types of complex tissues and mention their functions. OR Explain the various types of stem modifications with the help of examples.	5
27	Differentiate the following (i) Cartilaginous fishes and Bony fishes. (ii) Poikilothermy and Homiothermy OR Write the general features of class Aves and Mammalia.	5