

Higher Secondary Second Year

BIOLOGY

Model Question Paper – 1

Time : 2.30 Hrs

Marks : 70

Bio-Botany

Section- I

I Answer all the questions

8x1 = 8

Choose the most suitable answer :

1	<p>The standard size of a herbarium sheet</p> <p>a) 41m x 29cm                      b) 42cm x 31cm c) 42cm x 29cm                      d) 42cm x 29cm</p>
2	<p>Bracteoles are not present in</p> <p>a) Malva sylvestris                      b) Pavonia odorata c) Abutilon                                      d) Sida cordifolia</p>
3	<p>Primary vascular tissues arise from</p> <p>a) Protoderm                                      b) Procambium c) Ground meristem                                      d) Cortex</p>
4	<p>Lampbrush chromosomes are observed at the following stage of meiotic of in cyctes of salamander</p> <p>a) Zygotene                                      b) Pachytene c) Diplotene                                      d) Diakinesis</p>
5	<p>The two protoplasts are fused with a fusogen called</p> <p>a) Polyethylene glycol (PEG)                                      b) Polyvinyl chloride(PVC) c) Polyethane glycol (PEG)                                      d) Phosphoric ethane</p>
6	<p>The following enzyme unwinds the DNA strands during replication</p> <p>a) Polymerase                                      b) Ligase c) Helicase                                      d) Permease</p>
7	<p>Which of the following is not a C<sub>4</sub> plant?</p> <p>a) Maize                                      b) Tribulus c) Amaranthus                                      d) Wheat</p>
8	<p>Certain angiosperms lack chlorophyll and have mycorrhizal roots</p>

a) Cuscuta	b) Drosera
c) Nepenthes	d) Monotropa

### Section- II

Answer any four of the following

4 X 2 = 8

9	What is atropine?
10	What is callose?
11	Differentiate gene and genome
12	Name any four organisms used for scp production?
13	What is Photolysis of Water?
14	What is carbondioxide compensation point?

### Section- III

3 X 3 = 9

Write any Three of the following in which question no. 18 is compulsory

15	Bring out the economic importance of teak
16	Differentiate Dicot root and monocot root
17	Write about the physiological effects of cytokinn?
18	Draw the structure of t-RNA?
19	Explain the significance of herbarium

### Section- IV

2 X 5 = 10

Give the answer for the following questions

20	Explain hibiscus rosa-sinensis in technical terms Or Explain vascular tissue system
21	Explain calvin cycle ( Flow Chart or Explanation) Or Write any essay on recombinant DNA technology

## Bio Zoology

### Section- I

I Answer all the questions

8x1=8

Choose the most suitable answer from the given four alternatives

1	In adults vitamin D and calcium deficiency leads to b) Rickets d) Nyctalopia	b) Osteomalcia d) Keratomalacia
2	Demineralization of the bones is due to b) Less secretion of paratharmone c) Excess secretion of partharmone d) Excess secretion of calcitonin e) Lack of adrenalin	
3	Transfer of genetic material from one bacterium to another bacterium through bacterio phage is known as b) Conjugation c) Translation	b) transduction d) Transformation
4	The mucosa is endowed with b) IgA c) IgG	c) IgM d) IgE
5	Renal stone is made up of b) Calcium carbonate c) Calcium oxalate	b) Potassium oxalate d) Sodium carbonate
6	Human egg belongs to b) Mesolecithal c) Alecithal	b) Microlecithal d) Macrolecithal
7	Enlargement of liver is called as b) Spleenomegaly c) Hepatomegaly	b) Thalassemia d) Anaemia
8	The battery in the artificial pacemaker can last for b) 6-7 years c) 3-4 years	b) 5-6 years d) 7-8 years

### Section- II

**Write any four of the following**

**4x2=8**

9	How does obesity assessed?
10	A patient who is over 40 years of age having refractive defects and who does not want to wear glass or contact lens. Suggest an alternate option
11	What is molecular cloning?
12	What are attenuated strains? State their use
13	What is Bubble boy syndrome?
14	Name few exotic breeds of cattle

### **Section- III**

**Write any three of the following in which question no. 18 is compulsory**

**3 X 3 = 9**

15	What are the function of corpus callosum and anterior commissure? If corpus callosum is damaged what will happen?
16	What treatment is made for coronary artery blockage? Explain
17	Distinguish between Active and passive immunity
18	What are the methods adopted to remove stones in the bladder and lower ureter?
19	Distinguish between vaccines and antibiotics

### **Section- IV**

**Give the answer for the following questions**

**2X 5 = 10**

20	Describe the functioning of cerebral cortex Or A proper balance between insulin and glucagon production is necessary to maintain proper blood glucose level - Discuss
21	Write an essay on protozoan diseases caused to human being Or "Conservation of fresh water" - Discuss