Higher Secondary Second Year

BIOLOGY

Model Question Paper – 2

Bio-Botany

Section- I

Time: 2.30 Hrs Marks: 70

I Answer all the questions

8x1 = 8

Choose the most suitable answer:

| 1 | Inflorescence is a branched spadix in |
|---|--|
| | a) sterlizia b) Tridax |
| | c) Musa d) Ravenala |
| 2 | Which of the following statement is correct for tautonym |
| | a) Generic and specific epithet are different |
| | b) Generic name alone present |
| | c) Generic and specific epithet are same |
| | d) Only specific epithet present |
| 3 | The unicellular or multicellular appendages that originate from the epedumal cells are |
| | called |
| | a) Subsidiary b) trichoblasts |
| | c) Trichomes d) Guard cells |
| 4 | The gene which acts as unit of function is called |
| | a) Muton b)recon c) Cistron d) Operon |
| 5 | The terminal part of Chromosome is called |
| | a) Centromere b) kinetochore |
| | c) telomere d) Chromomere |
| 6 | Each restriction enzyme cleaves a molecule only at |
| | a) The ends of genes b) methyl groups |
| | c) nucleotide sequence d) the time of DNA replication |
| 7 | Light sensitive seeds can germinate in complete darkness by the hormone |
| | a) Auxin b) Gibberlin |
| | |

| | | c) Cytokinin d) Ethylene |
|---|---|---|
| Ī | 8 | Emetine is obtained from |
| | | a) Vinca b) Cephalis c) Solanum d) Acalypha |

Section- II

4 X 2 = 8

Answer any four of the following

| 9 | Define type specimen |
|----|--|
| 10 | Differentiate lamellar and angular collencynia |
| 11 | Draw the structure of Chromosome and label its parts |
| 12 | What is totipotency |
| 13 | Define vernalisation |
| 14 | What is richmond lang effect? |

Section- III

 $3 \times 3 = 9$

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

| 15 | List out the various types of infloresence of euphorbiaceae with suitable examples |
|----|--|
| 16 | Write a note on parenchyma |
| 17 | Explain the significance of ploidy |
| 18 | Differentiate photorespiration from Dark respiration |
| 19 | Write the aims of plant breeding |

Section- IV

2 X 5 = 10

Give the answer for the following questions

| 20 | Explain bentham and Hookers classification |
|----|---|
| | Or |
| | Describe the Different modes of nutrition in angiosperms. |
| 21 | Explain protoplasmic fusion |
| | Or |
| | Describe the primary structure of T.S of dicot root |

Bio Zoology

Section- I

I Answer all the questions

8x1=8

Choose the most suitable answer from the given four alternatives

| 1 | Women who have several pregnancies may be affected by |
|---|--|
| | b) Umblical hernia b) Inguinial hernia |
| | d) Femoral hernia d) Strangulated hernia |
| 2 | In the oesophagus one peristaltic wave takes about to reach stomach |
| | e) 3 seconds b) 5 seconds c) 9 seconds d) 8 seconds |
| 3 | During heart beat the lubb sound is due to |
| | b) Closure of mitral valve b) Closure of atrio ventricular valve |
| | c) Closure semilunar valve d) Closure of Tricuspid valve |
| 4 | Progressive loss of memory is associated with |
| | b) Meningitis b) Cerebral Thrombosis c) Myasthenia gravis d) Alzheimer's disease |
| 5 | Complex (or) uncertain symmetry is seen is |
| | b) adenovirus b) Pox virus |
| | c) blue tongued virus d) Polio virus |
| 6 | Many viruses, which are difficult or impossible to grow have been cultured in |
| | b) Primary culture b) Continuous cell line |
| | c) Pure culture d) Diploid cell strain |
| 7 | Certain plants such as were able to break down cyanide into non-toxic form |
| | b) Gibberella fusarium b) Thespesia populnea |
| | c) Gibberella fujikuroi d) Solanum melongena |
| 8 | Which of the following fowl is noted for its pugnacity? |
| | b) Chittagong b) Busra c) Aseel d) Karaknath |

Section-II

Write any four of the following

4x2 = 8

| 9 | What is silent infarction? |
|----|---|
| 10 | Which hormone is called antidiuretic hormone (ADH) why? |
| 11 | Who discovered antiseptic surgery? State its use. |

| 12 | What are the clinical manifestations of thalassemia? |
|----|--|
| 13 | Distinguish between life span and life expectancy |
| 14 | How will you identify Catla catla? |

Section- III Write any Three of the following in which question no. 18 is compulsory 3x3=9

| 15 | Terrestrial animals are generally either ureotelic or uricotelic, not ammonotelic why? |
|----|--|
| 16 | Write the reasons for conductive hearing loss |
| 17 | Which type of malaria is fatal? Why? |
| 18 | Distinguish between isograft and allograft. |
| 19 | Write the uses of karyotyping. |

Section- IV

Give the answer for the following questions

2X 5 = 10

| 20 | What are the alternative options for the couples who are unable to achieve fertilization in |
|----|---|
| | the normal way? Explain |
| | Or |
| | Describe the mechanism of urine formation. |
| 21 | Describe about various kinds of first line defence in most animals |
| | Or |
| | Suggest the ways to protect Earth from global warming and ozone depletion |