

Code: A-B337123-M

I Semester Exam – 2022-23

3 x 580

Std.: XII

Sub: BIOLOGY

Marks:70

Date: 23/11/2022

Roll No.: _____

Time: 3 hrs.

General Instructions :-

1. **Section-A** : Q.No. 1 contains Ten multiple choice type of questions carrying one mark each.
Q.No.2 contains Eight very short answer type of questions carrying one mark each.
2. **Section-B** : Q.No. 3 to Q.No. 14 are short answer type of questions carrying two marks each.
3. **Section-C** : Q.No.15 to Q.No.26 are short answer type of questions carrying three marks each.
4. **Section-D** : Q.No.27 to Q.No.31 are long answer type of questions carrying four marks each.
5. Figures to the right indicate full marks.
6. For each MCQ, correct answer must be written along with its alphabet.
e.g (a) / (b) / (c) / (d)
Only first attempt will be considered for evaluation.

Section - A

Q.1 Select and write the correct answer. **10**

- i) _____ is a transgenic food crop used to reduce vitamin A deficiency disease.
a) Flavr savr tomato b) Golden Rice
c) Bt Cotton d) Pomato
- ii) A versatile anther is an adaptation for _____ type of Pollination.
a) Hydrophily b) Ornithophily
c) Anemophily d) Entomophily
- iii) Which of the following pairs correctly matches a hormone with a disease resulting from its deficiency?
a) Collip's hormone : Cushing's disease.
b) Leutinizing hormone : Diabetes mellitus
c) Thyroxine : Addison's disease
d) Somatotropin : Dwarfism
- iv) In capping, methylated guanosine triphosphate is added to 5' end of _____.
a) hnRNA b) mRNA
c) tRNA d) rRNA
- v) The female gametophyte in angiosperms is a _____ nucleated structure.
a) 3 b) 7
c) 5 d) 8
- vi) _____ consists of pons varolli, cerebellum and medulla oblongata.
a) Fore brain b) Hind brain
c) Mid brain d) Side brain
- vii) Acrosome of sperm is formed from the _____.
a) Golgi bodies b) Mitochondria
c) Nucleus d) Endoplasmic reticulum

P.T.O

- Q.10 Draw a graph showing Logistic growth curve of population.
- Q.11 Give the phenotypic and genotypic ratio of F_2 generation in Monohybrid cross.
- Q.12 Write a note on CSF.
- Q.13 Sketch and label: T.S of Artery.
- Q.14 Differentiate between Habitat and Niche.

Section - C**Attempt any Eight.****24**

- Q.15 Name any three valves and their location in human heart.
- Q.16 What is Apomixis? Explain any two categories of apomixis.
- Q.17 Describe the steps involved in mechanism of PCR.
- Q.18 Explain the process of Oogenesis.
- Q.19 Write a note on Meninges.
- Q.20 Enlist the steps involved in rDNA technology.
- Q.21 Explain the mechanism of Sex determination in birds.
- Q.22 Give the secretion of alpha, beta and delta cells of Islets of Langerhans and Explain their functions.
- Q.23 Explain any three possibilities which an organism must adapt to survive and flourish in any environment.
- Q.24 What are the three types of endosperms? Describe them briefly.
- Q.25 Explain the transport of CO_2 in the form of bicarbonate ions.
- Q.26 Explain the stages of Parturition in humans.

Section - D**Attempt any Three.****12**

- Q.27 Describe the human Respiratory system in detail.
- Q.28 What is criss - cross Inheritance? Explain the Inheritance of haemophilia with suitable examples.
- Q.29 Describe the phases of Menstrual cycle in human female.
- Q.30 Explain the T.S of Spinal cord with the help of a neat labelled diagram.
- Q.31 What is DNA fingerprinting? Enlist the steps involved in DNA fingerprinting.
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