

MODEL QUESTION PAPER SET- 1 : 2021 - 22

MM : 70

BIOLOGY THEORY

Time : 3 Hrs

Entire Syllabus

The question paper is divided into Four sections :

- (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 contains Twelve short answer type of questions carrying two marks each.
Internal choice is provided (Any 8)
- (3) **Section C:** Q. No. 15 to Q. No. 26 contains Twelve short answer type of questions carrying Three marks each.
Internal choice is provided (Any 8)
- (4) **Section D:** Q. No. 27 to Q. No. 31 contains five long answer type of questions carrying Four marks each.
Internal choice is provided (Any 3)
- (5) Use log – Table if necessary. Use of Calculator is not allowed.

SECTION A

- Q.1 Select & Write the correct Answer** **10M**
- i.** Plasmids are used as cloning vectors for which of the following reasons? **1M**
- a) Can be multiplied in culture
 - b) Self-replication in bacterial cells
 - c) Can be multiplied in laboratories with the help of enzymes
 - d) Replicate freely outside bacterial cells
- ii.** When certain exotic species are Introduced Into a geographical area they become invasive mainly because? **1M**
- a) The invaded land has unlimited resources for the introduced species
 - b) The invaded land does not have its natural predator
 - c) The population of the introduced species in the invaded land is very low
 - d) Introduced species do not face any competition In the introduced land
- iii.** Which of the following membrane covers the lung? **1M**
- a) Ciliated Epithelium
 - b) Diaphragm
 - c) Pleura
 - d) Sternum
- iv.** The cranial capacity of Neanderthal man was..... **1M**
- a) 600 cc
 - b) 940 cc
 - c) 1400 cc
 - d) 1600 cc
- v.** Breathing is controlled by which part of the brain? **1M**
- a) Cerebrum
 - b) Cerebellum
 - c) Hypothalamus
 - d) Medulla oblongata
- vi.** In soil, water available for absorption by root is..... **1M**
- a) Gravitational water
 - b) Capillary water
 - c) Hygroscopic water
 - d) Combined water
- vii.** Nosema locustae is Pathogen. **1M**
- a) bacteria
 - b) fungal
 - c) protozoan
 - d) viral
- viii.** Cytokinins induce the formation of **1M**
- a) shoot apex
 - b) intrafascicular cambium
 - c) cork cambium
 - d) interfascicular cambium
- ix.** Which of the following is hormone releasing IUD? **1M**
- a) Lippes loop
 - b) Cu 7
 - c) LNG 20
 - d) Multiload 375

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| Q.17 | What is carcinogen? Name one chemical carcinogen with its target tissue and write various causes of cancer. | 3M |
| Q.18 | Explain in brief the factors affecting blood pressure. | 3M |
| Q.19 | Explain the chromosomal theory of inheritance . | 3M |
| Q.20 | Explain the three types of apomixis. . | 3M |
| Q.21 | Which different types of water is available for the roots to absorb it? | 3M |
| Q.22 | Write an account of succession in aquatic habitat. | 3M |
| Q.23 | Write about the discovery of cytokinin. Add a note on natural and synthetic cytokinin. | 3M |
| Q.24 | Explain Griffith's transformation experiment. | 3M |
| Q.25 | What is bio-gas? Write in brief about the production process. | 3M |
| Q.26 | Distinguish between Habitat and Niche. | 3M |

SECTION D

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| Attempt Any Three Questions | | 12M |
| Q.27 | Describe the process of transcription in protein synthesis | 4m |
| Q.28 | Explain the stages involved in the maturation of microspore into male gametophyte. | 4m |
| Q.29 | Describe in brief an account of disorders of the thyroid. | 4m |
| Q.30 | Why can you feel a pulse when you keep a finger on the wrist or neck but not when you keep them on a vein? | 4m |
| Q.31 | Describe the structure of blastocyst or blastula. | 4m |

Together we will make a difference