

Time allowed: 3 Hrs<sup>Code: 33</sup>

**Biology (Part - I)**  
**Fresh / Reappear**

Fic. No.....

Marks: 85

Note: There are three sections of the paper, A, B & C. Attempt Section - A on the same paper and return it to the Superintendent within the given time. No marks will be awarded for cutting, erasing or over writing. Mobile phone etc. are not allowed in the examination hall.

Time: 20 Mins

**Section "A"**

Marks: 18

Q.1 Write the correct option i.e. A, B, C or D in the empty box provided opposite each part.

- |                                                                                |                       |                    |                |                    |                            |
|--------------------------------------------------------------------------------|-----------------------|--------------------|----------------|--------------------|----------------------------|
| i. Creutzfeld-Jacob disease in human is caused by .....                        | A. Bacteria           | B. Virus           | C. Prions      | D. Viroids.        | <input type="checkbox"/> C |
| ii. Sulphonamide is a type of ..... Inhibitor.                                 | A. Competitive        | B. Non-competitive | C. Active      | D. Passive         | <input type="checkbox"/> A |
| iii. Region in the cytoplasm of bacteria, where chromosome is located is ..... | A. Nucleus            | B. Nucleoid        | C. Mesosome    | D. Capsule         | <input type="checkbox"/> B |
| iv. Hepatitis ..... is also called as serum hepatitis.                         | A. B                  | B. A               | C. E           | D. C               | <input type="checkbox"/> A |
| v. Immunity get by birth is called ..... Immunity.                             | A. Innate             | B. Acquired        | C. Active      | D. Adaptive        | <input type="checkbox"/> A |
| vi. Jelly fish belongs to phylum .....                                         | A. Annelida           | B. Molluska        | C. Coelentrata | D. Platyhelminthes | <input type="checkbox"/> C |
| vii. Heart is covered by a tough double membrane called .....                  | A. Pericardial cavity | B. Vena cava       | C. Aorta       | D. Pericardium     | <input type="checkbox"/> D |
| viii. .... is a gaseous plant hormone.                                         | A. ABA                | B. Ethylene        | C. Cytokinin   | D. Auxin           | <input type="checkbox"/> B |
| ix. In pancreas delta cells secrete .....                                      | A. Somatostatin       | B. Insulin         | C. Glucagons   | D. Polypeptides    | <input type="checkbox"/> A |
| x. .... is cell organelle responsible for autophagy.                           | A. Ribosome           | B. Lysosome        | C. Peroxisome  | D. Glyoxisome      | <input type="checkbox"/> B |
| xi. In Kreb's cycle succinate change into .....                                | A. Succinyl CoA       | B. Citrate         | C. Isocitrate  | D. Fumarate        | <input type="checkbox"/> D |
| xii. In sickle cell anemia glutamic acid is replaced by .....                  | A. Valine             | B. Lysine          | C. Arginin     | D. Histidine       | <input type="checkbox"/> A |
| xiii. .... causes infection of corneal tissues of eye.                         | A. Aspergillus        | B. Mycosporum      | C. Neurospora  | D. Mucor           | <input type="checkbox"/> C |
| xiv. Double fertilization is only present in .....                             | A. Gymnosperms        | B. Angiosperms     | C. Bryophytes  | D. Pteridophytes   | <input type="checkbox"/> B |
| xv. In DNA adenine form double bond with .....                                 | A. Thymine            | B. Adenine         | C. Guanine     | D. Cytosine        | <input type="checkbox"/> A |
| xvi. The final electron acceptor of electron transport chain is .....          | A. NADH               | B. FADH            | C. Oxygen      | D. Hydrogen        | <input type="checkbox"/> C |
| xvii. Secondary growth occur by the activity of .....                          | A. Xylem              | B. Phloem          | C. Pith        | D. Cambium         | <input type="checkbox"/> D |
| xviii. Form attained by an insect larva in any stadium is termed as .....      | A. Instar             | B. Ametabola       | C. Radula      | D. Operculum       | <input type="checkbox"/> A |

**Section "B"**

- Q.2 Attempt any TEN parts. Each part carries equal marks.
- i. Discuss growth in bacteria.
  - ii. What do you know about phloem?
  - iii. Describe life cycle of adiantum.
  - iv. Differentiate between prokaryotes and eukaryotes.
  - v. Write note on fermentation.
  - vi. What do you know about vernalization?
  - vii. Shortly discuss liver.
  - viii. Discuss hypertension.
  - ix. What are monosaccharides?
  - x. Differentiate between lichens and mycorrhizae.
  - xi. Discuss lock and key hypothesis about enzyme.
  - xii. What are prions?
  - xiii. Discuss characteristics of phylum porifera?

Marks: 27

**Section "C"**

Note: Answer any THREE questions. All questions carries equal marks.

- Q.3 Define photosynthesis. Write a detail note on light reaction.
- Q.4 Write a detail note on general structure of bacteria.
- Q.5 Describe the mechanism of digestion in small intestine.
- Q.6 Write note on any two.
- a. Plasma membrane
  - b. Dyspepsia
  - c. Types of racemose inflorescence