

Roll No :

Total No. of Questions : 11]

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SP-667

M.Sc. (Final) Examination, 2021

ZOOLOGY

Paper - VII (a)

(Cell Biology)

Time : 1½ Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

नोट :- सभी दस प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 50 शब्द)। प्रत्येक प्रश्न 2 अंक का है।

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 5 marks.

(खण्ड-ब)

(अंक : 5 × 5 = 25)

नोट :- सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा 200 शब्द)। प्रत्येक प्रश्न 5 अंक का है।

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five. (Answer limit 500 words). Each question carries 10 marks.

(खण्ड-स)

(अंक : 10 × 3 = 30)

नोट :- पाँच में से किन्हीं तीन प्रश्नों के उत्तर दीजिए। (उत्तर-सीमा 500 शब्द)। प्रत्येक प्रश्न 10 अंक का है।

BI-308

(1)

SP-667 P.T.O.

Section–A

2 each

1. Attempt all questions. Answers should not exceed **50** words in each question.
- (i) What is the significance of cell theory ?
 - (ii) What is Pinocytosis ?
 - (iii) What are Neurotransmitters ?
 - (iv) What are Peroxisomes ?
 - (v) What are checkpoints in cell cycle ?
 - (vi) Write significance of Meiosis.
 - (vii) What is Heterochromatin ?
 - (viii) What is Karyotype ?
 - (ix) What is host-parasite interaction ?
 - (x) What are G. Proteins ?

Section–B

5 each

Attempt all questions. Answer should not exceed **200** words in each question.

2. Describe in brief the types of gland cells and differentiate the types of gland cells.

Or

Write note on active transport.

3. Write in brief the structure of 'Endoplasmic Reticulum' and write its functions.

Or

Write in brief the structure of 'Nucleus' and its functions.

4. What is Gametogenesis ? Write in brief the steps in Oogenesis.

Or

Draw a neat and labelled diagram to explain 'Mitosis'.

5. Write a note on 'Giant Chromosomes'.

Or

Briefly explain how transposons can be utilized for genetic studies.

6. Write in brief the mechanism of 'Apoptosis'.

Or

Write in brief the steps involved in the entry process of bacteria into host cell.

Section–C

10 each

Answer any *three* questions out of five. Answer should not exceed **500** words in each question.

7. Write a note on types of blood cells and the mechanism of blood clotting.

8. What is Golgi Complex ? Give a brief account of its role in acrosome formation.

9. Write notes on the following :

(i) Mitotic poisons and their actions

(ii) Synaptonemal complex and its significance

10. Write a note on types of chromosomes and their significance in the field of Biology.

11. Define the term 'Metastasis'. Explain how the normal cell becomes malignant.