

OCTOBER 2011

P/ID 40227/PBTG

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

Write short notes on :

1. Supernatant.
2. Magnification.
3. Dictyosome.
4. Peroxisomes.
5. Malignant tumors.
6. Nucleolus.
7. Histone.
8. Sister Chromatids.
9. Clastogens.
10. Carcinogens.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Describe working of a Polarization microscope.

Or

(b) What is Autoradiography? How is it prepared?

12. (a) With the help of suitable diagram describe detailed structure of Chloroplast.

Or

(b) Describe ultrastructure of Mitochondria.

13. (a) Mention the basic differences between Mitosis and Meiosis.

Or

(b) Give a brief account of different types of RNAs found in the cell.

14. (a) Write short notes on Heterochromatin.

Or

(b) Describe the Lamp brush Chromosome with diagram.

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15. (a) Explain different types of Chromosomal aberrations.

Or

- (b) Write short notes on the significance of Polyploidy.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Describe the structure and uses of TEM.

Or

- (b) What is Centrifugation? Discuss its principle and uses.

17. (a) Differentiate between Eucaryotic and Prokaryotic cells.

Or

- (b) Describe ultra and molecular structure of Plasma membrane.

18. (a) What do you understand by cell cycle?
Describe all those events that occur during interphase of cell cycle that prepare the cell for nuclear divisions.

Or

- (b) What are chemical building blocks of DNA?

19. (a) Describe fine structure of Chromosome.

Or

- (b) Describe morphology of Chromosome.

20. (a) Give an account on the types of Mutation.

Or

- (b) Describe different kinds of Polyploidy and their phenotypic effect.
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