

S.No. 326

17PBT01

(For the candidates admitted from 2017-2018 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Biotechnology

CELL AND MOLECULAR BIOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Either or choice.

Answer ALL questions.

1. (a) Write the difference between the prokaryotic and eukaryotic cells.
Or
(b) Draw and explain the structure of fluid mosaic model of cell membrane.
2. (a) Explain the structure of mitochondria with neat diagram.
Or
(b) Explain the function of endoplasmic reticulum.

3. (a) Give an account on cell cycle.

Or

(b) Write a short note on cell signalling.

4. (a) Explain about the DNA repair mechanism.

Or

(b) Comment on splicing mechanism.

5. (a) Explain about the regulation of translation.

Or

(b) Explain about protein transporting mechanism.

PART B — (5 × 10 = 50 marks)

Either or choice

Answer ALL questions.

6. (a) Explain about the membrane dynamics.

Or

(b) Give an account on cytoskeleton and its function.

7. (a) Explain about the molecular events of ETC.

Or

(b) Explain about the photosynthesis.

8. (a) Explain about mitosis in cell cycle.

Or

(b) Brief discuss about G protein mediated signaling in cell.

9. (a) Explain about DNA replication in eukaryotic cells.

Or

(b) Describe about eukaryotic transcription.

10. (a) Explain about eukaryotic translation machinery.

Or

(b) Discuss on protein trafficking in cell.