

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Sixth Semester)

Branch – **BIOCHEMISTRY**

CELL - A MOLECULAR APPROACH

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which one is extra cellular messenger of apoptosis?
i) TNF ii) Serine iii) Tyrosine iv) ribozyme
- 2 Which is the important feature of cancer cell?
i) non- Invasive ii) Metastasis
iii) Attached to the surface iv) mono layer cells
- 3 Stems cells are
i) differentiated cells ii) undifferentiated cells
iii) non- invasive cells iv) damaged cells
- 4 The Polymerase chain reaction is _____.
i) It is a DNA sequencing technique ii) It is a DNA amplification techniques
iii) It is a DNA denaturasion technique iv) All the above
- 5 Human genome project started in the year.
i) 1990 ii) 2003
iii) 1996 iv) 2008

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

6. a Write a short note on cell signaling.
OR
b Give an account on G protein.
7. a What do you mean by antioncogene?
OR
b Explain the properties of cancer cells.
8. a Discuss the mechanism of skin replacement.
OR
b Write a principle of liver transplant.
9. a Elucidate the historical review of proteomics.
OR
b Write a note on RFLP.
10. a Explain about physical mapping of chromosome.
OR
b Discuss about gene cloning.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a Discuss the cell cycle and regulatory functions.
OR
b Enumerate the pathway and role of apoptosis.
12. a Explain the symptoms, causes, pathophysiology of cancer.
OR
b Discuss the mechanism oncogenesis.
13. a Explain the application of stem cell therapy.
OR
b Outline the applications of tissue engineering.
14. a Describe the DNA microarray and analysis.
OR
b Discuss the principle, procedure and applications of PCR.
15. a Discuss about the human genome project.
OR
b Explain the steps involved in the analysis of human disease gene.

Z-Z-Z

END