Exam Date & Time: 29-Sep-2020 (10:00 AM - 01:45 PM)

PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins

BSc DEGREE EXAMINATION MAY 2020
(Sixth Semester)

Branch - BIOCHEMISTRY

CELL - A MOLECULAR APPROACH [14BCV26B]

Marks: 75 **Duration: 210 mins.**

SECTION A

Answer all the questions.

1) What are regulatory proteins? (2)

2) Define apoptosis. (2)

3) Define cell line. (2)

4) What are oncoproteins? (2)

5) Define stem cells. (2)

6) What is tissue engineering? (2)

7) List out two function of PCR. (2)

8) How is protein used in molecular diagnosis? (2)

9) Define HGP. (2)

10) What is positional cloning? (2)

SECTION B

Answer all the questions.

11) a) How is cell cycle controlled in yeast? (5)

[OR] b) What is cell signaling and brief on a protein pathway? (5)

12) Brief on the mechanism of formation of cancer cells due to mutation. (5)

a)

[OR] b) Note on (i) Oncoproteins and their functions. (ii) Properties of Cancer cells. (5)

13) Explain the principle behind tissue engineering and its application. (5)

a)

[OR] b) Describe embryonic stem cell therapy. (5)

14) How are DNA micro arrays used in the diagnostic process? (5)

a)

[OR] b) What are the processes behind modeling of cellular behaviour? (5)

15) Explain the physical maps of human chromosomes. (5)

a)

[OR] b) How is human diseased genes analysed? (5)

SECTION C

Answer 3 out of 5 questions.

16) Elaborate on apoptotic pathway. (10)

17) How are cells transformed in culture? (10)

18) Explain the process behind liver replacement. (10)

19) Elaborate on the use of PCR in the molecular diagnosis of genetic and infectious disease. (10)

20) Give a detailed principles and procedure involved in HGP. (10)

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