



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 1st Semester Examination, 2021-22

PHYACOR01T-PHYSIOLOGY (CC1)

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

Candidates should answer in their own words and adhere to the word limit as practicable.

All symbols are of usual significance.

Answer any five questions from the following

$8 \times 5 = 40$

1. (a) Discuss in brief about the cytoskeleton of a cell. 4+4
(b) Describe about different types of protein present in the cell membrane.

2. (a) What is gap junction? 2+4+2
(b) Briefly discuss about Sodium-potassium pump.
(c) What is p53?

3. (a) What is vesicular transport system? 2+4+2
(b) Discuss about different types of vesicular transport system.
(c) What is peroxisome?

4. (a) What do you mean by second messenger system? 2+3+3
(b) Write about the structure of G-protein coupled receptors.
(c) Describe the role of IP₃ and DAG in signal transduction.

5. (a) Explain the term: uniport, symport and antiport. 3+2+3
(b) What is the function of kinesin?
(c) Define chiasma and crossing over.

6. (a) Describe the mechanism of apoptosis. 4+4
(b) Explain the functional significance of rER and sER.

7. (a) What is the difference between cell ageing and senescence? 2+3+3
(b) What are the symptoms of ageing?
(c) How is ROS related to ageing?

8. (a) Define Homeostasis. 2+3+3
- (b) Describe the function of golgi apparatus.
- (c) Briefly discuss about the role of different factors in the maintenance of internal environment.

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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