

**2024/TDC (CBCS)/EVEN/SEM/
BTCHCC-201T/001**

TDC (CBCS) Even Semester Exam., 2024

BIOTECHNOLOGY

(2nd Semester)

Course No. : BTCHCC-201T

(Mammalian Physiology)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *two* of the following questions : $2 \times 2 = 4$
 - (a) Define digestion.
 - (b) Write the composition of bile.
 - (c) Write about digestion of nucleic acids.

2. Answer any *one* of the following questions : 6
 - (a) Give a detailed account of mechanism of digestion of proteins.
 - (b) Write about composition of pancreatic, gastric and intestinal juice.

(2)

UNIT—II

3. Answer any *two* of the following questions : $2 \times 2 = 4$
- (a) What is chloride shift?
 - (b) Write a note on transport of CO_2 through blood.
 - (c) Differentiate between aerobic and anaerobic respiration.
4. Answer any *one* of the following questions : 6
- (a) Give a detailed account of exchange of gases.
 - (b) Give an illustrated account of transport of oxygen through blood. Draw oxygen dissociation curve. $4 + 2 = 6$

UNIT—III

5. Answer any *two* of the following questions : $2 \times 2 = 4$
- (a) Differentiate between WBC and RBC.
 - (b) Write a note on plasma proteins.
 - (c) What is haemopoiesis?
6. Answer any *one* of the following questions : 6
- (a) Write about cardiac output and cardiac cycle. $3 + 3 = 6$
 - (b) Give a detailed account of mechanism of coagulation of blood.

24J/638

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(3)

UNIT—IV

7. Answer any *two* of the following questions : $2 \times 2 = 4$
- (a) Write a note on All or None rule.
 - (b) Define isotonic and isometric contraction.
 - (c) Write about glomerular ultrafiltration.
8. Answer any *one* of the following questions : 6
- (a) Give an account of cardiac, smooth and skeletal muscle. $2 + 2 + 2 = 6$
 - (b) Write an essay on ornithine cycle.

UNIT—V

9. Answer any *two* of the following questions : $2 \times 2 = 4$
- (a) What is saltatory conduction?
 - (b) Write a note on structure of synapse.
 - (c) Give a brief account of thymus.
10. Answer any *one* of the following questions : 6
- (a) Describe the hormones of pituitary gland and their functions.
 - (b) Give a detailed account of neurotransmitters.

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24J—50/638