

**2024/FYUG/EVEN/SEM/
BTCIDC-151T/109**

FYUG Even Semester Exam., 2024

BIOTECHNOLOGY

(2nd Semester)

Course No. : BTCIDC-151T

(Human Physiology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

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

SECTION—A

Answer any twenty of the following questions :

1×20=20

1. Define digestion.
2. Name the cells secreting HCl.
3. What is the pH of salivary amylase?
4. Name the largest gland in the human body.
5. What is the function of lacteals?

(2)

6. Define respiration.
7. What is aerobic respiration?
8. What is anaerobic respiration?
9. Differentiate between inspiration and expiration.
10. What is chloride shift?
11. What is SA node?
12. Write the full form of AV node.
13. What is cardiac output?
14. Define myogenic heart.
15. What is the weight of the human heart?
16. Define locomotion.
17. What is osteocyte?
18. Define myosin.
19. Name a disorder of the skeletal system.
20. What is excretion?
21. Define axon.
22. What is chemical coordination?
23. Define hormones.

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(Continued)

(3)

What is the full form of T3?
Name a pancreatic enzyme.

SECTION—B

- Answer any five of the following questions : 2×5=10
36. Write the composition of bile.
 37. Point out the various components of saliva.
 38. Differentiate between right lung and left lung.
 39. Draw oxygen-haemoglobin dissociation curve.
 40. Write a note on composition of blood.
 41. Differentiate between single circulation and double circulation.
 42. How does bone differ from cartilage?
 43. Differentiate between sweat and sebum.
 44. Write about pineal gland.
 45. Give a brief account of thymus.

SECTION—C

- Answer any five of the following questions : 8×5=40
36. Give a detailed account of human digestive system with necessary drawing and labelling.

5+3=8

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(Turn Over)

37. Describe the roles of the liver and pancreas in digestion. 3+
38. Describe the human respiratory system with the help of a labelled diagram. 5+
39. Give an illustrated account of exchange of gases. 6+
40. Describe the mechanism of blood coagulation. Differentiate erythrocytes and leucocytes. 5+3
41. Give a detailed account of the mechanism of double circulation through human heart. Add a note on ECG. 6+2
42. Give a comparative account of cardiac, smooth and skeletal muscles. Write a note on actin. 4+2+2=
43. Describe the structure of nephron with the help of a diagram. Write the composition of human urine. 4+2+2=
44. Describe the structure of the human brain. Differentiate between cerebrum and cerebellum. Point out the functions of cerebrum. 4+2+2=
45. Describe the structure of neuron in detail. Add a note on reflex action. 6+2=
