

**B.Sc. OPERATION THEATRE TECHNOLOGY  
FIRST SEMESTER  
PHYSIOLOGY-I  
BOT-102**

**SET  
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

( Objective )

1 × 20 = 20

*Choose the correct answer from the following:*

1. The formed elements of blood are all, except:  
a. RBC  
b. Plasma  
c. WBC  
d. Platelets
2. The GFR of a normal healthy adult is (in ml/min/1.73m<sup>2</sup>)  
a. 124  
b. 125  
c. 126  
d. 128
3. The J shaped organ of the digestive system is:  
a. Liver  
b. Pancreas  
c. Esophagus  
d. Stomach
4. The plasma proteins are all except:  
a. Albumin  
b. Plasminogen  
c. Globulin  
d. Fibrinogen
5. The normal cardiac output of a healthy adult male is (in Liters):  
a. 2-3  
b. 3-4  
c. 4-5  
d. 5-6
6. The normal respiratory rate of a healthy adult is (in breaths per minute):  
a. 10-12  
b. 12-16  
c. 20-23  
d. 18-23
7. Which is not an organ of the digestive system?  
a. Liver  
b. Stomach  
c. Pancreas  
d. Prostate
8. The organs of urinary system are all except:  
a. Urinary bladder  
b. Uterus  
c. Urethra  
d. Kidneys
9. Which is a respiratory organ?  
a. Trachea  
b. Esophagus  
c. Gall bladder  
d. Pancreas
10. Which is not a part of Neuron?  
a. Axon  
b. Myoglobin  
c. Dendrite  
d. Nodes of Ranvier

11. The different parts of Small intestine are all except:
  - a. Duodenum
  - b. Ileum
  - c. Caecum
  - d. Jejunum
12. Which is a part of the colon?
  - a. Esophagus
  - b. LES
  - c. Stomach
  - d. Sigmoid
13. The normal urine output of a healthy person on an average is:
  - a. 180 liters/day
  - b. 12 liters /day
  - c. 1.5 liters/day
  - d. 5 liters /day
14. The parts of the nephron are all except:
  - a. DCT
  - b. PCT
  - c. LOH
  - d. DOP
15. In neuromuscular junction the main neurotransmitter is:
  - a. Dopamine
  - b. Acetylcholine
  - c. Dobutamine
  - d. Adrenaline
16. The lowest level we term as tachycardia is when the heart rate exceeds:
  - a. 100 beats per minute
  - b. 110 beats per minute
  - c. 160 beats per minute
  - d. 200 beats per minute
17. The positive waves of ECG are all except:
  - a. P
  - b. QRS
  - c. S
  - d. T
18. The first heart sound is produced due to:
  - a. Closure of AV valves
  - b. Opening of AV Valves
  - c. Closure of Semilunar valves
  - d. Opening of Semilunar valves
19. The normal platelet count is:
  - a. 5-6 lakhs cells per cubic mm of blood
  - b. 1.5-4 lakhs cells per cubic mm of blood
  - c. 7-8 lakhs cells per cubic mm of blood
  - d. 9-10 lakhs cells per cubic mm of blood
20. The main type of anemia in India in women:
  - a. Pernicious
  - b. Sickle Cell
  - c. Aplastic
  - d. Iron deficiency

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**( Descriptive )**

Time : 2 hr. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

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|---|----------|
| 1. What is Cardiac cycle? Describe the mechanical events of the cardiac cycle with proper diagrams.   | 3+7=10   |
| 2. Define Erythropoiesis. Describe the different stages of Erythropoiesis.  | 2+8=10   |
| 3. What is a nephron? Mention the steps of Urine formation.   | 2+8=10   |
| 4. Define a neuron. Draw the diagram and label its parts of a neuron. Enumerate the differences between sympathetic and parasympathetic system.             | 1+4+5=10 |
| 5. Describe the different ways of the digestion and absorption of different principal food stuff components that takes place in our body.                   | 10       |
| 6. Differentiate between extrinsic and intrinsic pathway of blood coagulation. Name the different clotting factors. Why blood does not clot in circulation? | 4+3+3=10 |
| 7. Describe the different static lung volumes and capacities. Mention the process of Respiration and the organs of Respiration.                             | 6+4=10   |
| 8. Mention the renal function tests. Define GFR. What are the factors on which GFR depends?   | 6+2+2=10 |

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