

Physiology [Major]

[NEP]

B.Sc. First Semester End Examination-2024

Regular and Supplementary Paper

PAPER-PHY MJ 101T

[Basic Physiology-I]

Full Marks: 40

Time: 02 Hrs.

The figures in the right hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group-A

1. Answer any FIVE questions of the following: **5x2= 10**
- a. Why a living cell become polarised?
 - b. What is Primary lysosome and Secondary lysosome?
 - c. Define secondary active transport and symport.
 - d. Mention the characteristic features of epithelial tissue. What is transitional epithelium?
 - e. What is plasmapheresis?
 - f. What is pulmonary compliance?

(2)

- g. Define anatomical dead space volume and physiological dead space volume.
- h. Mention the functions of albumin present in plasma.

Group-B

2. Answer any FOUR questions of the following: $4 \times 5 = 20$

- a. Explain - i) Pacemaker of heart
ii) Anisocytes & Poikilocytes $2\frac{1}{2} + 2\frac{1}{2}$
- b. Discuss the function of Golgi complex with special reference to secretion. What is liposome? $3+2$
- c. Discuss the process of respiration. Why expired air contains less carbon dioxide than alveolar air? $4+1$
- d. What is all or none law and stair case phenomenon of cardiac muscle? Define Starling's law of heart. $1\frac{1}{2} + 1\frac{1}{2} + 1$
- e. Define- i) cytoribosome and mitoribosome
ii) Fluidity of cell membrane $2\frac{1}{2} + 2\frac{1}{2}$
- f. What are special functional tissue of heart? What is first degree heart block? $3+2$

Group-C

Answer any ONE question of the following: $1 \times 10 = 10$

- a. Discuss the histological structure of bone. How bone is different from cartilage? What is cell nest? $5+3+2$

(3)

- b. Explain - i) Function of Peroxisome
ii) Myofibril and myofilament.
iii) Transport function of blood
iv) Elastic recoil property of lung. $2\frac{1}{2} \times 4$
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