

2023

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*

Figures in the right hand margin indicate marks.

Draw labelled diagrams wherever necessary.

GROUP – A

1. Fill in the blanks. (all) [1 × 8]
- (a) Blood and lymph are the examples of _____ tissue.
 - (b) _____ cell never undergoes mitosis.
 - (c) Cretinism occurs due to deficiency of _____.
 - (d) Organ of Corti is located in _____.
 - (e) Selective accumulation of iodine occurs in _____ gland.
 - (f) The nurse cells present in mammalian testes is known as _____ cell.
 - (g) HGC is a _____ hormone.
 - (h) An emergency contraceptive pill contains _____.

[2]

GROUP – B

2. Answer any eight of the following questions within two to three sentences each. [1½ × 8

- (a) What is saltatory conduction ?
- (b) Write characteristics of cardiac tissue.
- (c) Why cartilage is flexible but bone is rigid ?
- (d) What is ossification ?
- (e) Explain Vasectomy.
- (f) Write about proteins of muscle fibres.
- (g) Explain role of testosterone in male.
- (h) What is reflex arc ?
- (i) What is adipose tissue ?
- (j) What is tunica albuginea ?

GROUP – C

3. Write notes on any eight of the following within 75 words each. [2 × 8

- (a) Mechanism of action of steroid hormone
- (b) Define sliding filament theory
- (c) Functions of parathyroid gland

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- (d) What is luteal phase ?
- (e) What are the functions of STH ?
- (f) Discuss about neuromuscular Junction.
- (g) Write about the histology of Pancreas.
- (h) Puberty
- (i) Action potential
- (j) Synaptic transmission

GROUP – D

Answer *all* questions within 500 words each.

4. Describe the types of connective tissue and their functions. [6

OR

Describe the structure and functions of a nervous tissue.

5. Describe the mechanism of vision. [6

OR

Describe the ultrastructure of a myofibril of a striated muscle fibre and discuss mechanism of muscle contraction.

6. Describe artificial methods of contraception. [6

[4]

OR

Describe the physiology of male reproductive system of human and also describe the histology of testis.

7. Describe the structure and functions of adrenal gland. [6]

OR

Give a brief account of hormones of adenohiphysis of pituitary in mammal.