2020

Time : As in Programme

Full Marks : 60

The figures in the right-hand margin indicate marks.

Answer from ***all*** *the Parts as directed.*

Draw labelled diagram wherever necessary.

Part – I

1. Fill in the blanks (any **four**) : 2×4 = 8

   (a) The tissues that are sheets of cells covering the body surface is known as _____ tissue.

   (b) _____ connects muscles to bones.

   (c) Auto-rhythmicity is a special property of _____ muscles.

   (d) Part of neurons that receives impulses and convey it towards the cell body are known as _____.

   (e) Supporting cells present in seminiferous tubules are called _____ cells.

   (f) The process of expulsion of secondary oocytes from Graafian Follicle is known as _____.

   (g) The alpha cells of Islet of Langerhans produce _____.

   (h) Hormones produces by anterior pituitary is also known as _____ hormone.

Part – II

2. Answer any **four** of the following questions in **two** or **three** sentences each : 3×4 = 12

   (a) What is Haversian System ?

   (b) What are endocrine glands ? Give one example.

   (c) Define synapse.

   (d) What are photoreceptors ?

   (e) Name the three types of muscles. Where are they located ?

   (f) What is Graafian Follicle ?

   (g) Define puberty.

Part – III

3. Write notes on any **four** of the following within **50** words each and draw labelled diagrams wherever specified : 4×4 = 16

   (a) Connective tissue

   (b) Osteoclast

   (c) Sarcomere

   (d) Resting membrane potential

   (e) Seminiferous tubules

   (f) Placental hormones

   (g) Thyroid

   (h) Adenohypophysis

   (i) Draw a labelled diagram of neuron

   (j) Cartilage

Part – IV

4 Answer **three** following questions within **300** words each (draw diagram wherever necessary) : 8×3 = 24

   (a) Give an account of epithelial tissue.

OR

Describe the process of ossification of bones.

   (b) Describe the ultrastructure of skeletal muscle.

OR

Discuss generation and propagation of action potential across unmyelinated nerve fibre.

   (c) Describe the male reproductive system.

OR

Give a detailed account of ovarian cycle. What are the different methods of contraception in female ?

   (d) Discuss the histological structure of pancreas, hormone produced by pancreas and their functions.

OR

Mechanism of non-steroidal hormone action.

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