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12223

3 Hours / 80 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Answer any EIGHT of the following : **8 × 2 = 16**

(a) Classify nervous tissue.

(b) List four strata of epidermis of skin.

(c) Write the functions of Cerebrospinal fluid.

(d) Mention the name of tissue by which the organ is made up of :

(i) Heart (ii) the Pons

(e) Draw flow chart of physiology of Neuromuscular Junction.

(f) List the organs of urinary system and write the normal urine output per day.

(g) Draw a well-labelled diagram of a lymph node.

(h) Enumerate hormones released by the pituitary gland.

(i) Mention the name of receptor cells involved in physiology of :

(i) Smell (ii) Taste

(j) Give an account of composition of blood plasma.

(k) Mention the type of joint in following parts of the body :

(i) Wrist (ii) Knee

(l) List any two pairs of salivary glands.

2. Answer any FOUR of the following : 4 × 3 = 12

(a) Describe any three functions of blood.

(b) Draw a labelled diagram of internal structure of heart.

(c) Explain anatomy and physiology of pharynx.

(d) List the endocrine glands with their location in the body.

(e) Write any six cranial nerves with their type and functions.

(f) Explain structure of TS of stomach.

3. Answer any FOUR of the following : 4 × 3 = 12

(a) Describe the process of sperm formation in testes.

(b) Explain how blood glucose level is maintained in the body.

(c) Write the physiology of hearing.

(d) List the bones of skull.

(e) Draw a well-labelled diagram of cerebrum.

(f) Describe the properties of a skeletal muscle.

4. Answer any FOUR of the following : **4 × 3 = 12**

(a) Explain terms :

(i) Hematology (ii) Anatomy (iii) Hemolysis

(b) Describe three functions of lymphatic system.

(c) Write the physiology of respiration.

(d) List the functions of kidneys. Explain any one.

(e) Explain the anatomy of Sympathetic Nervous System.

(f) Write anatomy and physiology of ovary.

5. Answer any FOUR of the following : **4 × 3 = 12**

(a) Draw a well-labelled diagram of cell.

(b) Explain Differential Leukocyte Count with its significance.

(c) Explain following terms :

(i) Cardiac output (ii) Atherosclerosis (iii) Thrombocytopenia

(d) List any six functions of liver.

(e) Describe metabolic role of Thyroid hormones.

(f) Write the composition and functions of intestinal juice.

6. Answer any FOUR of the following : **4 × 4 = 16**

(a) Explain following terms with their normal values :

(i) Inspiratory Reserve Volume

(ii) Vital capacity

(iii) Tidal volume

(iv) Lung capacity

(b) Explain portal circulation with its significance.

(c) Describe the functions of medulla oblongata.

(d) Explain macroscopic and microscopic anatomy of kidneys.

(e) Describe the electric conduction system of the heart.

(f) Explain the process of digestion of carbohydrates in the food.
