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PY 132201

Roll No. of candidate

2017

B Pharm 2nd Semester End-Semester Examination

HUMAN ANATOMY AND PHYSIOLOGY – II
(Theory)

Full Marks–100 Pass Marks–35 Time–Three hours

The figures in the margin indicate full marks for the questions.

Section – A

Answer any *ten* questions : 10×3=30

1. Choose the right answer :

   (a) Parathyroid hormone —

   (i) Increases bone formation and blood calcium levels

   (ii) Increases calcium excretion from the body

   (iii) Decreases calcium absorption from the gut

   (iv) De-mineralizes bone and raises blood calcium levels.

[Turn over

(b) Cushing's syndrome is due to —

(i) Over production thyroid hormone

(ii) Over production of growth hormone

(iii) Over production of corticosteroid hormone

(iv) None of the above.

(c) Emotional behavior is controlled by the _____ area of the brain.

(i) Pons

(ii) Cerebellum

(iii) Limbic system

(iv) Basal ganglia.

2. Fill in the blanks :

(a) _____ are responsible for vision in dim light, and _____ are responsible for vision in bright light.

(b) The twelfth cranial nerve is _____, which innervates muscles of tongue.

(c) Fertilization of ova normally takes place in _____.

3. Choose the right answer :

(a) Chymotrypsin is a —

(i) Hormone

(ii) Pancreatic enzyme

(iii) Gastric enzyme

(iv) None of the above.

(b) _____ papillae are bigger than other papillae and are arranged in V shaped way in back of the tongue near the throat.

(i) Circumvallate papillae

(ii) Filiform papillae

(iii) Fungiform papillae

(iv) None of the above.

(c) Hypermetropia is called as —

(i) Nearsightedness

(ii) Farsightedness

(iii) Astigmatism

(iv) All of these.

4. What is the function of cartilaginous rings in trachea ? Explain why rings in the trachea are C-shaped ?

5. Write the composition of normal urine. Brief about the abnormal constituents of urine.

6. Explain the role of cholecystokinin and bile in digestion ?

7. What is COPD and how it affects the lungs ? Explain with example.

8. What is ovulation ? Write a short note on maturation of the Graafian follicle.

9. Name the smallest bone of inner ear. What is bony labyrinth ? What part of inner ear that controls balance ?

10. Define the followings :
    (i) Glomeruli
    (ii) Vasa racta
    (iii) Peritubular capillaries.

11. The spinal cord begins at medulla oblongata and ends between first and second _____ vertebrae, where it tapes as the _____ and from this a thin prolongation of pia meter, the _____, which has pierced the dural sac, runs to the coccyx.

12. Write the functions of Sertoli cell and Leydig cell in male reproductive system.

Section – B

Answer any *eight* questions : 8×5=40

1. Discuss about the various parts of brain with proper diagram.

2. What is sphincter of Oddi ? Explain the functions of salivary glands and pancreas.

3. What do you mean by special senses ? Describe structure and function of skin along with proper sketch.

4. What is the functional unit of kidney ? Describe the physiology of micturation.

5. Describe in brief about different phases of menstruation cycle.

6. Explain the reflex action with example and give the sketch of reflex arch.

7. Describe the various parts of pituitary glands and hormones secreted from pituitary gland.

8. Brief the following endocrine disorders :

   (i) Goiter

   (ii) Diabetes mellitus

   (iii) Hirsutism

   (iv) Giantism

   (v) Graves disease.

9. Define the following terminology :

   (i) Haustra

   (ii) Dialysis

   (iii) Spermatogenesis

   (iv) Neuroglia

   (v) Synapse.

10. What is optic chiasm ? Discuss the physiology of vision.

Section – C

Answer any *three* questions : 3×10=30

1. What is the function of rugae and sphincter in stomach ? What are peristaltic movements in human digestion ? Explain the role of stomach and small intestine in digestion and absorption. 2+2+6=10

2. What are cranial nerves ? Name different types of cranial nerves, their origins and innervations. Discuss in detail about the neurohumoral transmission. 2+2+6=10

3. Describe the mechanism pulmonary ventilation. Explain the transport of oxygen and carbon dioxide during respiration. 5+5=10

4. Describe the — 5+5=10

   (i) Physiology of urine formation

   (ii) Fertilization and major developmental events during embryonic period.