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- 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.
 - (6) In case student has attempted sub-question of question no. 3 more than once, only first attempt should be considered for assessment.

Marks**1. Attempt any SIX of the following:****30**

- a) Name the bones in the appendicular skeleton. Describe various types of joints.
- b) Write the composition and functions of Blood.
- c) With neat well labelled diagram discuss anatomy and flow of blood through heart.
- d) Describe the various functions of liver.
- e) Name the parts of brain. Describe the structure and functions of cerebrum with diagram.
- f) With neat well labelled diagram describe the structure of Ear.
- g) With neat well labelled diagram give the anatomical features of kidney. Enlist the functions of kidneys.

2. Attempt any TEN of the following:**30**

- a) Draw a well labelled diagram of cell and its organelles.
- b) Define Tissue. Explain epithelial tissue in detail.
- c) Define blood clot. Illustrate the mechanism of blood clotting in detail.
- d) Describe the structure and functions of lymph node.
- e) Discuss the events of cardiac cycle in detail.
- f) Define respiration. Discuss physiology of respiration in detail.
- g) Give reason - pancreas is called EXO-Endocrine gland.
- h) Define reflex action and give its two examples. Draw a well labelled diagram of reflex arc.
- i) Name any four endocrine glands. Name the hormones secreted by pituitary gland.
- j) Summarise the hyposecretion and hypersecretion effects of thyroid gland.
- k) Draw a neat well labelled diagram of female reproductive system. Enlist the functions of female reproductive system.

**3. Attempt ALL of the following :**

- a) Define Anatomy.
 - b) The cavity within a bone is called as -----
 - c) Enlist the types of specialized connective tissue.
 - d) The lower jaw is known as –
 - i) Maxilla
 - ii) Ethmoid bone
 - iii) Mandible
 - iv) Clavicle
 - e) All of the following are Hinge Joints excepts –
 - i) Elbow Joint
 - ii) Knee Joint
 - iii) Joints between phalanges
 - iv) Wrist Joint
 - f) The normal Diastolic Blood pressure in adult human being is -----.
 - g) ----- are the blood vessels which transport blood away from heart.
 - h) Define Residual volume.
 - i) ----- is a tubular passage way for air also called as wind pipe.
 - j) The duct of liver and pancreas open into –
 - i) Ileum
 - ii) Ischium
 - iii) Colon
 - iv) Duodenum
 - k) Define neuromuscular junction
 - l) The outer covering of the striated muscle fibre is called -----.
 - m) Peripheral nervous system consist of ----- pairs of spinal nerves.
 - n) ----- Nerves convey impulses from brain to other parts of the body.
 - o) Which is the following is a part of middle ear –
 - i) Malleus
 - ii) Cochlea
 - iii) Vestibule
 - iv) Semicircular canals
 - p) The central transparent region of eye which allows light to enter is called as -----.
 - q) Olfactory nerves are present in -----.
 - r) ----- system is responsible for maintenance of blood pressure.
 - s) Name the site in male reproductive system where sperm maturation takes place.
 - t) In male the sex hormones that maintains sexual organs and secondary sexual characteristics is –
 - i) Relaxin
 - ii) Testosterone
 - iii) Estrogen
 - iv) All of the above.
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