

20114

21222

3 Hours / 80 Marks

Seat No.

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15 minutes extra for each hour

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.

Marks

1. Answer any SIX of the following :

30

- (a) Define Skeleton. Name the bones of axial and appendicular Skeleton.
- (b) Describe the process of blood coagulation. Name the factors which accelerate & retard blood clotting.
- (c) Describe the structure and functions of skin with a neat labelled diagram.
- (d) Name the valves and chambers of human heart. Explain Cardiac cycle.
- (e) Draw a neat labelled sketch of L.S. of kidney and explain its structure.
- (f) Define reflex action. Describe the basic components of reflex arc with labelled diagram.
- (g) Name the organs of digestive system. Give the composition and functions of gastric juice.

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

- (a) Name four fundamental tissues of body. Differentiate between smooth and skeletal muscles.
- (b) Define the terms :
 - (i) Cardiac output
 - (ii) Stroke volume
 - (iii) Blood pressure
- (c) Draw a neat sketch of human cell and label :
 - (i) Nucleus
 - (ii) Golgi apparatus
 - (iii) Mitochondria
 - (iv) Cytoplasm
 - (v) Lysosomes
 - (vi) Endoplasmic reticulum
- (d) Write six functions of liver.
- (e) Define hormones. Name hormones of anterior pituitary gland.
- (f) Classify leukocytes with their functions.
- (g) Draw a neat labelled diagram of lymph node and state its two functions.
- (h) Explain the physiology of respiration.
- (i) Write the effect of stimulation of sympathetic system on :
 - (i) Heart
 - (ii) Eye
 - (iii) Small intestine
- (j) Explain the role of insulin and glucagon in the body.
- (k) Name different parts of male reproductive system with their functions.

3. Answer ALL questions :

20

- (a) Name three layers of heart.
- (b) The blood vessel which carry deoxygenated blood from heart to lungs is _____.
- (c) The right lung has _____ white left lung has _____ lobes.
- (d) Intrinsic factor is necessary for absorption of _____.
- (e) _____ is hormone secreted by testes.
- (f) Name the bones involved in elbow joint.
- (g) Neurotransmitter released at neuromuscular junction is _____.
- (h) Peripheral nervous system consists of _____ pairs of cranial nerves and _____ pairs of spinal nerves.
- (i) Name the cranial nerve responsible for equilibrium and hearing.
- (j) In which part of female reproductive system fertilization of ovum takes place ?
- (k) The study of physical structures of body is
- | | |
|-----------------|-----------------|
| (i) Anatomy | (ii) Physiology |
| (iii) Histology | (iv) Cytology |
- (l) The term “medial” means
- | | |
|-------------------------------|----------------------|
| (i) Away from surface of body | (ii) Near to head |
| (iii) Away from the head | (iv) Near to midline |
- (m) Which of the following is not a connective tissue ?
- | | |
|----------------------|---------------------|
| (i) Blood | (ii) Bone |
| (iii) Cardiac Muscle | (iv) Adipose Tissue |
- (n) The exchange of gases between air and lungs is called as :
- | | |
|----------------------------|---------------------------|
| (i) Internal respiration | (ii) Cellular respiration |
| (iii) External respiration | (iv) Bronchodilation |

- (o) Organ of Corti helps in
- (i) Balancing
 - (ii) Hearing
 - (iii) Vision
 - (iv) All of the above
- (p) Taste cells on tongue that receive the stimulation of taste are :
- (i) Olfactory receptor
 - (ii) Gustatory receptors
 - (iii) Baroreceptor
 - (iv) Photoreceptor
- (q) _____ focuses light in retina.
- (i) Sclera
 - (ii) Iris
 - (iii) Cornea
 - (iv) Ciliary muscles
- (r) Following is an example of hinge joint
- (i) Shoulder joint
 - (ii) Hip joint
 - (iii) Knee joint
 - (iv) All joints in body
- (s) The functional unit of contractile system in striated muscle is known as :
- (i) M-line
 - (ii) Actin
 - (iii) Sarcomere
 - (iv) Myofibril
- (t) The reasons why right kidney is slightly lower than the left kidney is :
- (i) Right kidney is bigger than the left
 - (ii) Right kidney is smaller than the left
 - (iii) Considerable space occupied by liver on right side
 - (iv) Considerable space occupied by heart
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