00809

11718

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.

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Marks

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

(a) Define the terms :

(i) Menninges

(ii) GFR (Glomerular Filtration Rate)

(b) 'Mitochondria is called power house of cell' State reason.

(c) Classify synovial joints with example.

(d) State the composition of blood.

(e) Define Suture. Name any two sutures and bones involved in it.

(f) Draw and label reflex arc.

(g) Write the changes occur in male at puberty.

(h) Name the bones of upper limb.

(i) Define plasma and serum.

(j) Enlist the muscles of mastication.

(k) Explain terms : (i) Medial (ii) Lateral.

(l) Write functions of Lymphatic system.

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

(a) State the differences between smooth muscle and skeletal muscle.

(b) Explain the mechanism of respiration.

(c) Draw a well-labelled diagram of internal structure of heart showing blood flow.

(d) Define Skeleton. State it's functions.

(e) Explain in short :

(i) Rheumatoid arthritis

(ii) Gout

(f) Explain formation and composition of Lymph.

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

(a) Explain portal circulation. Give its importance.

(b) State the functions of Liver.

(c) Draw a well-labelled diagram of female reproductive system.

(d) Write the effects of sympathetic and parasympathetic nerve stimulation on (i) Heart (ii) Blood vessels and (iii) Pupil.

(e) 'Pancreas is called as exo-endocrine gland.' State reason.

(f) Define and explain neuromuscular junction.

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

(a) Explain the three phases of menstrual cycle.

(b) Draw a well-labelled diagram of sagital section of an eye.

(c) Mention the digested end products and enlist the enzymes involved in (i) carbohydrate (ii) protein digestion

(d) Define hormone. Enlist the hormones secreted by anterior and posterior pituitary gland.

(e) Explain the functions of skin.

(f) Explain terms and write normal value :

(i) Vital capacity

(ii) Tidal volume

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

(a) What is auditory Ossicle ? Name the bones involved in it. Explain its function.

(b) Explain the process of urine formation.

(c) Explain the process of micturition.

(d) Draw labelled diagram of cerebrum showing functional areas.

(e) State the composition and functions of gastric juice.

(f) Name any six cranial nerves with function.

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

(a) Classify primary tissues in detail.

(b) Write anatomy and physiology of thyroid gland.

(c) Differential between arteries and veins.

(d) Write the mechanism of blood coagulation.

(e) Explain conducting system in heart.

(f) Define the terms :

(i) Myopia

(ii) Bronchitis

(iii) Menopause

(iv) Stenosis

00809

21718

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

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Marks

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

(a) Give the functions of hypothalamus.

(b) Name the bones of lower limb.

(c) Define Anatomy & Physiology.

(d) Give the functions of tongue.

(e) Name different organs of respiratory system.

(f) Daw a well labelled diagram of a simple living cell.

(g) Name the bones forming shoulder joint.

(h) Mention disease caused by hyposecretion and hypersecretion of growth hormones.

(i) Give the composition of intestinal juice.

(j) Mention muscles of facial expressions.

(k) How male urethra differes from female urethra ?

(l) Give the components of lymphatic system.

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

(a) Explain digestion of proteins.

(b) Draw and label L.S. of skin.

(c) Explain, how urine is formed.

(d) Name the bones forming thoracic cage & cranium.

(e) Give the role of oestrogen and progesterone in body.

(f) What will be the effect of parasympathetic nervous system stimulation on :

(i) Salivary gland ?

(ii) Heart ?

(iii) Respiratory system ?

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

(a) Give composition and functions of cerebrospinal fluid.

(b) Give the functions of stomach.

(c) Name the arteries supplying blood to liver, kidney and intestine.

(d) Draw a well labelled diagram of internal ear.

(e) Explain, how kidneys help to maintain water balance of body.

(f) What do you mean by

(i) Muscle contraction ?

(ii) Muscle fatigue ?

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

(a) Draw and label the diagram of L.S. of kidney.

(b) Give classification and functions of leukocytes.

(c) Explain the role of anterior pituitary hormones in the body.

(d) Mention the different cranial nerves.

(e) Name the different parts of male reproductive system with their functions.

(f) Define and give normal values of (any two) :

(i) Tidal volume

(ii) Vital capacity

(iii) Residual volume

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

(a) Explain physiology of respiration.

(b) Describe with a neat diagram how circulation of blood takes place through heart.

(c) Enlist different types of blood cells with their normal values.

(d) Describe cardiac muscle in detail.

(e) Explain physiology of hearing.

(f) Define the terms :

(i) Glaucoma

(ii) Night blindness

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

(a) Describe the structure and functions of uterus.

(b) Give the composition of blood and explain, how blood clot is formed.

(c) Draw a well labelled diagram of cerebrum showing all the lobes.

(d) Give composition and functions of pancreatic juice.

(e) Define shock. Explain different types of shock.

(f) What is neuromuscular junction ? Explain physiology of neuromuscular junction.

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00809

11819

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

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Marks

1. Attempt any EIGHT of the following : **16**

(a) What is a joint ? Name the bones forming the elbow joint.

(b) Name two muscles of facial expression.

(c) Define :

(i) Digestion

(ii) Absorption

(d) List the types of cells present in the blood.

(e) What are true and false ribs ?

(f) Define hormone. Give two examples of it.

(g) Draw and label the structure of cell.

(h) List the fundamental tissues of the body.

(i) What is cardiac output ? Write its normal value.

(j) Name the three auditory ossicles.

(k) Mention any two functions of spleen.

(l) Define :

(i) Cell

(ii) Anatomy

2. Attempt any FOUR of the following : 12

(a) Give the structure and functions of mitochondria.

(b) Write the mechanism of blood clotting.

(c) What are the functions of lymphatic system ? Draw a well labelled diagram of 'lymph node'.

(d) Define Skeleton. Write the difference between male and female pelvis.

(e) Write the composition and functions of gastric juice.

(f) Define :

(i) Sickle cell anaemia

(ii) Angina pectoris

(iii) Menopause

3. Attempt any FOUR of the following : 12

(a) Name the various types of epithelial tissues. Explain any one.

(b) Name the different types of blood groups. Explain erythroblastosis foetalis.

(c) Give the role of diaphragm in the mechanism of respiration.

(d) Draw a well labelled diagram of 'functional areas of cerebrum'.

(e) Enumerate six functions of skin.

(f) Define :

(i) Oedema

(ii) Glaucoma

(iii) Congestive cardiac failure

4. Attempt any FOUR of the following : **12**

(a) Explain the circulation of blood in the heart.

(b) Draw a diagram of 'LS of kidney' and label it.

(c) What are the functions of medulla oblongata ?

(d) Justify 'Pituitary gland is known as master gland'.

(e) Write the physiology of digestion of proteins.

(f) Define and give normal value of

(i) Tidal volume

(ii) Residual volume

5. Attempt any FOUR of the following : **12**

(a) Name the methods of measurement of blood pressure. Explain the auscultatory method of measurement of BP.

(b) Describe the process of urine formation.

(c) Justify that pancreas is both exocrine and endocrine gland.

(d) Draw a sagittal section of eye.

(e) What is puberty ? Give the features of puberty in male.

(f) Define :

(i) Renal calculi

(ii) Arthritis

(iii) Tonsillitis

6. Attempt any FOUR of the following : **16**

(a) Differentiate between artery and vein.

(b) Explain the negative feedback mechanism of endocrine glands.

(c) Write the functions of liver.

(d) What is menstrual cycle ? Describe the phases of menstruation.

(e) Describe the structure of neuromuscular junction.

(f) What is the effect of sympathetic and parasympathetic stimulation on

(i) Heart

(ii) Bronchi

(iii) GIT

(iv) Eye

0809

21819

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

Instructions – (1) All Questions are *Compulsory.*

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

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Marks

1. Attempt any EIGHT of the following: **16**

a) Define tissue. Name fundamental tissues of the body.

b) State the functions of plasma proteins.

c) Give the functions of skeleton.

d) Name the arteries supplying blood to liver, intestine diaphragm and kidneys.

e) Draw a neat labeled diagram of L.S of Kidney.

f) Compare the anatomy of sympathetic nervous system with that of parasympathetic nervous system.

g) Give functions of Bile.

h) Why pituitary gland is known as master gland.

i) Name different organs of respiratory system.

j) Describe Neuro-muscular junction in short.

k) Explain how skin helps in maintaining body temperature.

l) Define: Anatomy and Physiology.

Marks

2. Attempt any FOUR of the following: **12**

a) Discuss physiology of menstrual cycle.

b) Define endocrine gland. Enlist endocrine glands of human body.

c) Describe composition and functions of Gastric juice.

d) What is Hypothalamus? Give its functions.

e) Discuss the physiology of muscular contraction.

f) Explain the process of urine formation.

3. Attempt any FOUR of the following: **12**

a) Describe physiology of respiration.

b) Describe in brief the cardiac cycle.

c) What are lymph nodes. Give their functions.

d) Discuss in brief the process of coagulation of blood.

e) Name any six cranial nerves with their functions.

f) Give composition and function of saliva.

4. Attempt any FOUR of the following: **12**

a) Describe the structure and function of mitochondria.

b) Write functions and classification of WBC's.

c) Classify joints with examples of each class.

d) Describe the terms Angina Pectoris and Stenosis.

e) Discuss different functions of kidneys.

f) Give the microscopic structure of skeletal muscles.

Marks

5. Attempt any FOUR of the following: **12**

a) Name different organs of male reproductive system with their functions.

b) What is Reflex action? Draw a neat labeled structure of Reflex arc.

c) Explain the terms-vital capacity, tidal volume and residual volume.

d) Describe digestion of carbohydrates.

e) Explain the terms universal donor and universal recipient.

f) Describe different layers of stomach.

6. Attempt any FOUR of the following: **16**

a) Describe microscopic structure of the bone.

b) Explain role of haemoglobin in the process of respiration.

c) Name the abnormal constituent of urines with name of disease they signify.

d) Discuss choroid, ciliary body and iris of eye.

e) Discuss structural and functional differences between artery and vein.

f) Explain in short, factors affecting on Heart rate.

0809

11920

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

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Marks

1. Attempt any EIGHT of the following: **16**

a) Define Anatomy and Physiology.

b) Name fundamental tissues of the body.

c) What is serum?

d) Explain true and false ribs.

e) Name the bones of Shoulder Joint.

f) Define the term Dyspnea.

g) Define cell. Enlist its components.

h) Define Erythropoiesis.

i) Give the names of four Cranial Nerves.

j) Explain the terms fossa and foramen.

k) Define Saliva? Enlist salivary glands.

l) Name the hormones secreted by Adrenal glands.

Marks

2. Attempt any FOUR of the following: **12**

a) Define Reflex Action. Explain structure of Reflex Arc.

b) Enlist the hormones secreted by posterior pitutary gland and explain their effects.

c) Draw and label L.S. of kidney

d) Define lymph? Give functions of lymphatic system.

e) Explain the terms Atherosclerosis and Myocardial Infarction.

f) What will be the effect of sympathetic stimulation on –

(i) Salivary gland

(ii) Blood vesseles

(iii) Bronchi

3. Attempt any FOUR of the following: **12**

a) Draw well labelled diagram of Internal Ear.

b) Explain the term Hypothalamus with its functions.

c) Define the term portal circulation? Give its significance.

d) Explain physiology of muscle contraction.

e) Describe composition and function of Gastric Juice.

f) Explain role of kidney in maintenance of water balance of body.

4. Attempt any FOUR of the following: **12**

a) Explain the term anemia? Enlist its types and explain megaloblastic anemia.

b) Name the cartilages of larynx? Give functions of larynx.

c) Classify Epithelial Tissue.

d) Explain the terms Thrombosis and embolism.

e) Explain properties of skeletal muscle tissue.

f) Describe the mechanism of coagulation of blood.

Marks

5. Attempt any FOUR of the following: **12**

a) Define Glomerular filteration and Glomerual filteration rate.

b) Explain Physiology of Respiration.

c) Explain the terms Odema and Nephritis.

d) Define and give normal values of

(i) Vital Capacity

(ii) Tidal Volume

(iii) Residual volume

e) Compare Autonomic Nervous System (ANS) with Central Nervous System (CNS).

f) State various types of Synovial Joints with examples.

6. Attempt any FOUR of the following: **16**

a) Explain the structure and function of Ovaries.

b) Draw diagram of conducting system of heart. Explain cardiac cycle.

c) Draw V. S. of skin. Explain role of skin in maintenance of body temperature.

d) Explain the term menstruation. Describe in detail the phases of Menstrual Cycle.

e) Give the composition of bile and its functions.

f) Describe :

(i) Hyperthyroidism

(ii) Hypothyroidism

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00809

16172

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

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Marks

1. Attempt any EIGHT of the following : **16**

(a) Define :

(i) Anaemia (ii) Reproduction

(b) Classify epithelial tissues.

(c) Draw a well labelled diagram showing a simple reflex arc.

(d) Enlist the muscles of neck & give their functions.

(e) Name different vertebrae of vertebral column.

(f) Why pituitary gland is called as master gland ?

(g) Define lymph. Mention different components of lymphatic system.

(h) What is Puberty ?

(i) Draw and label the structure of cell.

(j) Give the normal values of the following :

(i) Pulse (ii) Cardiac output

(iii) Stroke volume (iv) Heart rate

2. Attempt any FOUR of the following : **12**

(a) Define Respiration. Explain the mechanism of respiration.

(b) Draw a well labelled diagram showing internal structure of Human Ear.

(c) Classify Muscular Tissue. Explain anatomy and physiology of different types of muscular tissue.

(d) Differentiate between male and female pelvis.

(e) Give composition and functions of blood plasma.

(f) What do you mean by :

(i) Arthritis

(ii) Menopause

(iii) Polycythemia

3. Attempt any FOUR of the following : **12**

(a) Define and classify joints with suitable examples.

(b) What is a neuromuscular junction ? Explain physiology of neuromuscular transmission.

(c) Differentiate between CNS & ANS. What is effect of parasympathetic stimulation on

(i) Lachrymal glands (ii) Heart

(d) What is shock ? Explain various types of shocks.

(e) Classify, give normal count and functions of blood corpuscles.

(f) What do you mean by

(i) Renal calculi (ii) Atherosclerosis

4. Attempt any FOUR of the following : **12**

(a) Define :

(i) Hypertention

(ii) Oedema

(iii) Meningitis

(b) Draw a labelled diagram showing saggital section of eye.

(c) Classify bones based on their microscopic structure. List important functions of bones.

(d) With the help of suitable diagram explain circulation of blood through heart.

(e) Give functions of uterus, fallopian tubes and ovaries.

(f) What do you mean by motor, sensory and mixed nerves ? Give one example of each.

5. Attempt any FOUR of the following : **12**

(a) Define blood pressure. Explain factors maintaining blood pressure.

(b) With the help of labelled diagram explain the microscopic structure of kidney.

(c) What are taste buds ? Explain physiology of taste.

(d) Mention the parts of alimentary tract. Give one function of each part.

(e) Give functions of cerebrum and medulla oblongata.

(f) Mention the bones forming :

(i) Cranium

(ii) Thoracic cage

6. Attempt any FOUR of the following : **16**

(a) Define 'blood clot'. Explain mechanism of blood clotting. Mention factors affecting same.

(b) Enlist and discuss different functions of kidney.

(c) Define hormones. Enlist any three endocrine glands and give their secretions.

(d) Define Digestion. Explain chemical digestion of food.

(e) Draw and describe microscopic structure of ovary.

(f) Give composition and function of :

(i) CSF

(ii) Semen
