HUMAN ANATOMY AND PHYSIOLOGY

Time : 3:00 Hours]   [Maximum Marks : 80

NOTES :

i)   Attempt **all** questions.

ii) Students are advised to specially check the Numerical Data of question paper in both versions. If there is any difference in Hindi Translation of any question, the students should answer the question according to the English version.

iii) Use of Pager and Mobile Phone by the students is not allowed.

PART-A

Answer any six questions. Each question carries equal marks.   [6 × 5 = 30]

Q1) Draw a neat and labelled diagram of cell. Describe the structure and functions of mitochondria.   [2+3=5]

Q2) Describe the composition and functions of blood.   [5]

Q3) Draw a neat and labelled diagram of L.S. of heart. Describe the structure and functions of heart.   [2+3=5]

Q4) What are endocrine glands? Describe the various secretions of pituitary gland.   [2+3=5]

Q5) Draw a neat and labelled diagram of urinary system. Discuss the physiology of urine formation.   [2+3=5]

Q6) Discuss the structure and functions of liver. How the digestion of carbohydrates, proteins and fats takes place in our body?   [2+3=5]

Q7) Describe the physiology of muscle contraction. What is Rh factor?   [3+2=5]

PART-B

Answer any ten questions. Each question carries equal marks.   [10 × 3 = 30]

Q1) Discuss the scope of Anatomy and physiology.   [3]

Q2) Describe the disorders of joints.   [3]

Q3) Describe the mechanism of blood coagulation.   [3]

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Q4) Write a note on spleen. [3]

Q5) Describe the mechanism of respiration. [3]

Q6) Write about blood groups. [3]

Q7) Discuss on reflex actions. [3]

Q8) Write in short about any three of the following : [3×1=3]
   a) Glaucoma.
   b) Hemopoiesis
   c) Micturition.
   d) Menopause.
   e) Hypertension.

Q9) Write the fullform of any three of the following : [3×1=3]
   a) RBC.
   b) ANS.
   c) TSH.
   d) GIT.

Q10) Discuss the physiology of menstruation. [3]

Q11) Write about ball and socket joint with example. [3]

PART-C

Multiple choice questions/Fill-in the blanks. Answer all questions. Each question carries equal marks. [20 × 1 = 20]

Multiple Choice Questions.

Q1) Human skeleton is made of a total of:
   a) 201 bones   b) 206 bones
   c) 126 bones   d) 198 bones

Q2) Which one of the following blood groups is considered a universal donor?
   a) A   b) B
   c) AB   d) O

Q3) In human body the blood Circulation was discovered by:
   a) Karl Landsteiner   b) William Harvey
   c) Gasparo Aselli   d) Charles Darwin

Q4) In an ECG graph; the period of relaxation in heart beat is denoted by:
   a) P   b) Q
   c) S   d) T

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(Q5) Henle's loop is:

   a) L-shaped

   c) U-shaped

   b) S-shaped

   d) V-shaped

Q6) The largest part of human brain is:

   • a) Cerebrum

   c) Diencephalon

   b) Cerebellum

   d) Medulla oblongata

Q7) From outside to inside the arrangement of bones of middle ear is:

   a) Incus → Malleus → Stapes

   c) Incus → Stapes → Malleus

   b) Stapes → Malleus → Incus

   d) Malleus → Incus → Stapes

Q8) Islets of langerhans produce:

   a) Bile

   c) Trypsin

   b) Amylase

   d) Insulin

Q9) Menstrual cycle is of:

   a) 26 days

   c) 30 days

   • b) 28 days

   d) 29 days

Q10) A tendon joins:

   a) Muscle with bone

   c) Muscle with ligament

   b) Muscle with muscle

   d) Bone with bone

Fill in the blanks

Q11) Power house of the cells are _____

Q12) A muscle is called fatigued when there is accumulation of _____ in it.

Q13) The regulation of heart beat and blood pressure are under control of _____

Q14) Generally a sudden fatal heart attack may take place due to complete blockade of _____ artery.

Q15) The pulse of a person can be felt by placing a finger on _____ artery in the wrist.

Q16) Gustatory cells are found is the _____

Q17) Bile is stored in the _____ of body.

Q18) The loss of transparency of the lens causes a defect in teh eyes is called _____

Q19) Estrogen and progesterone are secreted by _____

Q20) Exchange of gases in the lungs is called _____ respiration.

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