

Model Question Paper
Structure and Functions of Human Body Organ Systems (B) - Part I

10th Standard

Science

Reg.No. :

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- I. Answer all the questions.
- II. Use Blue pen only.
- III. Question No 17 is compulsory.

Time : 01:15:00 Hrs

Total Marks : 35

10 x 1 = 10

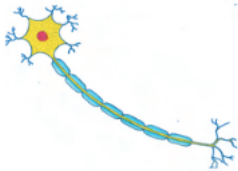
Section-A

- 1) Unipolar neurons are found in the _____.
(a) Brain (b) Spinal Cord (c) Embryonic nervous tissue (d) Adult nervous tissue
- 2) The sensory organs contain _____.
(a) Unipolar neuron (b) Bipolar neuron (c) Multipolar neuron (d) Medullated neuron
- 3) The part of brain which controls emotional reactions in our body is _____.
(a) Cerebellum (b) Cerebrum (c) Thalamus (d) Hypothalamus
- 4) One of the following is a part of the brain stem. Pick it out.
(a) Forebrain and midbrain (b) Midbrain and hindbrain (c) Forebrain and hindbrain (d) Forebrain and spinal cord
- 5) Spinal nerves are _____.
(a) sensory nerves (b) motor nerves (c) mixed nerves (d) innervating the brain
- 6) An endocrine gland found in the neck is _____.
(a) adrenal gland (b) pituitary gland (c) thyroid gland (d) pancreas
- 7) An endocrine gland which is both exocrine and endocrine is the _____.
(a) pancreas (b) pituitary (c) thyroid (d) adrenal
- 8) Normal blood glucose level in 1dl of blood is _____.
(a) 80-100 mg/dl (b) 80-120 mg/dl (c) 80-150 mg/dl (d) 70-120 mg/dl
- 9) The "T" lymphocytes are differentiated to resist infection in the _____.
(a) parathyroid gland (b) lymph gland (c) thymus gland (d) adrenal gland
- 10) In Meiosis-I, the pairing of homologous chromosomes take place during _____ stage.
(a) leptotene (b) zygotene (c) pachytene (d) diplotene

Section-B

5 x 2 = 10

- 11) Copy the diagram and label any two parts in the group given: (cyton, axon, dendron, terminal branches)



- 12) The diagram is of the human brain. Shade the areas marked A and B in the parts of the brain, corresponding with the function. A. Seat of smell B. Seat of vision



- 13) Copy the diagram and label the parts with the help of the clues given:



- i) It is otherwise called supra renal gland. ii) It secretes two hormones, namely aldosterone and cortisone.

- 14) Copy and identify the types of neurons given below:



- 15) Here are some statements about meiosis. State whether each of them is true or false: i) It takes place in somatic cells. ii) Meiosis is also called reduction division. iii) Pairing of homologous chromosomes is called crossing over. iv) Meiosis leads to variations which form the raw material for evolution.

Section-C

3 x 5 = 15

16) Use words from the given list to complete the following paragraph. (The words may be used once/ more than once / not at all). (Skull, Vertebral column, Piamater, Arachnoid membrane, Brain, Spinal cord, Meninges, Duramater) The central nervous system is covered by three protective coverings collectively called _____. The outermost cover lying below the _____ and _____ is double thick and is called _____. The middle covering is thin and vascularised and is called _____. The innermost cover is a very thin delicate membrane and is closely stretched over the outer surface of _____ and _____ and is called _____.

17) a) Match these parts with their functions:- medulla oblongata, cerebellum, forebrain, thalamus, cerebral cortex, hind brain, pons, hypothalamus
a) Sleep centre and respiratory centre
b) Several reflexes involved in the regulation of heart beat, blood vessel contraction, breathing etc.
c) Consists of cerebrum, thalamus and hypothalamus
d) Motor and sensory areas
e) A major conducting centre for sensory and motor signalling
f) Regulation of sexual behaviour
g) Consists of pons, cerebellum and medulla oblongata
h) Co-ordinates the group movements of voluntary muscles, as in walking or running

(OR)

b) Observe the diagram of the human brain and identify the areas mentioned:
i) The area responsible for consciousness, intelligence, memory, imagination and reasoning.
ii) The area responsible for regulation and co-ordination of group movements of voluntary muscles.
iii) The area responsible for sleeping and respiration.
iv) The area responsible for reflexes involved in the regulation of heart beat, blood vessel contraction, breathing etc



