

**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University), Coimbatore-641 043**

**Bachelor's Degree Examination – November 2018
I Semester**

**Class : I UG
Major: Psychology**

**Time :3 hours
Max. Marks: 100**

18BPSC02 – Physiological Psychology

Part-A

10 x 1=10

Choose the correct answer

1. The method of removing the brain area is known as
 - a. MRI
 - b. Ablation
 - c. Stimulation
 - d. CT Scan
2. An EEG records the
 - a. Number of neurons in brain
 - b. Electrical impulse from the brain
 - c. Chemical activity in the cranial nerves
 - d. Direct electrical stimulation of the brain
3. As we move from lower to higher animals a large proportion of the brain is devoted to the
 - a. Unusually large occipital lobe
 - b. Corpus Collosum
 - c. Cerebrum
 - d. spinal cord
4. The part of the ANS responsible for restoring the body and conserving energy is
 - a. Somatic System
 - b. Limbic system
 - c. Parasympathetic division
 - d. Sympathetic division
5. . During the resting state, compared to the outside the electrical charge inside the neuron is..
 - a. It differs generally depending upon the neuron
 - b. Positive 70mv
 - c. Neutral
 - d. Negative 70mv
6. Which of the following is known as the primary inhibitory neurotransmitter
 - a. Glutamate
 - b. Serotonin
 - c. Acetylcholine
 - d. GABA
7. Hormones
 - a. are the electrical messengers of the glands
 - b. are related to neurotransmitters
 - c. generally maintain a steady state in our bodily functions
 - d. do not require receptor sites
8. The major link between the brain and the glandular system is the
 - a. Hypothalamus
 - b. Pituitary
 - c. CNS
 - d. Midbrain
9. The Pons acts as a bridge between the medulla and other brain areas and influences
 - a. Activity
 - b. sleep & arousal
 - c. Motor behavior
 - d. Higher reasoning
10. Which of the following is NOT TRUE about the importance of H.M.'s case? It
 - a. supports distinct short-term and long-term memory processes
 - b. supports the view of diffuse memory processes
 - c. implicates the medial temporal lobe in memory processes
 - d. suggests that the area removed from H.M.'s brain is important for consolidation

Part B

Answer the following
Answer should not exceed 400 words or two pages

11.a. List out and explain the other branches of psychology that are related to physiological psychology

(or)

11.b. Elucidate the biological influence on human behaviour

12.a. Analyze the structure and functions of the midbrain

(or)

12.b. What are the two major parts of peripheral nervous system? In what way the two parts differ from each other?

13.a. What is meant by graded polarization? Compare and analyze which gate opens during EPSP & IPSP?

(or)

13.b. Explain the functions of monoamines and its significance in human behaviour

14.a. Examine the role of hypothalamus and list out the hormones secreted by hypothalamus

(or)

b. Outline the characteristics of hormones and list out the major functions of hormones

15.a. Describe the stages of sleep and elucidate the significance of sleep for brain.

(or)

b. What is the significance of amygdala and frontal lobe in human emotion

Part C**5 x 12=60****Answer the following**

Answer should not exceed 800 words or four pages

16.a. Discuss the difference between electrical/chemical stimulation and ablation methods used to study the brain

(or)

b. Write short notes on: Stereotaxic surgery and anatomical methods

17.a. Illustrate the structure of the neuron with a neat diagram, locate its parts and explain its functions

(or)

b. Describe the important structures and functions of the forebrain

18.a. How the neuron does communicate with each other? What did you understand from all-or-none Law

(or)

b. Explain the sequence of chemical events at synapse and give an example for biosynthesis of any one neurotransmitter.

19.a. Give an overview of major glands and its hormones functions

(or)

b. What are the 4 major groups of hormones? Analyze the positive and negative feedback mechanism of hormones with an example.

20.a. Describe the physiological correlates of learning

(or)

b. Analyze the role of hippocampus in memory and explain the effects of hippocampus damage on human memory
