

16U222

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Name.....

Reg. No.....

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY-2017

(Regular/Supplementary/Improvement)

(CUCBCSS – UG)

CC15U PSY2 C01 – HUMAN PHYSIOLOGY II

(Complementary Course: Psychology)

(2015 Admission Onwards)

Time: Three Hours

Maximum: 80 Marks

PART – A

Answer *all* questions. Each question carries *one* mark

1. The lowermost part of the brain is formed of
 - a) Pons varolli
 - b) Crura cerebri
 - c) Cerebellum
 - d) Medulla oblongata
2. Which of the following does not act as a neurotransmitter
 - a) Acetylcholine
 - b) Cortisone
 - c) Serotonin
 - d) GABA
3. The condition of sudden flailing movements of an entire limb as a result of a lesion in the subthalamus is called
 - a) Hemiballismus
 - b) Chorea
 - c) Parkinson's disease
 - d) Athetosis
4. Central sulcus separates the following two lobes in the cerebral cortex
 - a) Parietal & occipital
 - b) Occipital & Temporal
 - c) Temporal & Parietal
 - d) Frontal & Parietal
5. Formulation of speech and the act of articulation are functions of the
 - a) Auditory cortex
 - b) Broca's area
 - c) Visual cortex
 - d) Wernicke's area
6. When the pre and post synaptic membranes form a functional continuity, impulse crosses by _____ transmission.
7. _____ is the condition caused due to excess accumulation of fluid in the cranial vault.
8. Corpora quadrigemina are part of the _____.

9. Anatomically, two fissures divide the cerebellum into the anterior lobe, the posterior lobe and the _____ lobe.
10. Neurons that secrete the neurotransmitter noradrenaline are called _____ neurons.

(10 x 1 = 10 Marks)

PART - B

Answer any *ten* questions. Each question carries *two* marks

11. Explain how an action potential is propagated along a myelinated axon.
12. Write a brief note on brain waves.
13. What is multisynaptic reflex and what are its components?
14. Briefly explain electroencephalography.
15. Which part of brain is known as the 'silent area' of brain? Why is it so known?
16. What is crossed extensor reflex?
17. Explain the role of calcium ions in the transmission of an action potential.
18. Write a note on meninges.
19. Give the sites of production and functions of Cerebrospinal fluid.
20. Explain 'All or None' law.

(10 x 2 = 20 Marks)

PART - C

Answer any *six* questions. Each question carries *five* marks

21. Explain the organization of the sympathetic nervous system and its role in emergencies.
22. Describe how the caudate circuit is involved in the cognitive control of motor activity.
23. Briefly discuss the basic theories of sleep.
24. With the help of a neat, labeled diagram explain the structure of a motor neuron.
25. Explain the principle, operation and advantages of Computerized Tomography (CT).

26. What are glial cells? Explain the more important functions of the different types of glial cells
27. Explain briefly the concept of the dominant hemisphere
28. Describe the properties of a neuronal synapse.

Max (6 x 5 = 30 Marks)

PART - A

Answer all questions. Each question carries one mark

PART - D

Answer any **two** questions. Each question carries **ten** marks

29. What are association areas of the cerebral cortex? Explain their respective roles.
30. Detail the organization of dorsal and ventral forebrain.
31. Explain how an action potential is initiated, transmitted and conducted.
32. Explain the role of cerebellum in the overall control of motor activities.

(2x10=20 Marks)

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