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BRAINWARE UNIVERSITY

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Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2025-2026
Programme – B.Sc.(PSY)-Hons-2024
Course Name – Biological Basis of Behaviour
Course Code - BPY30103
(Semester III)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Identify from the following a non-human subject used in biopsychology research.

a) Whale b) Elephant
c) Giraffe d) Rat

(ii) Identify which one of the following is an X ray based technique.

a) PET scan b) MRI
c) Cerebral Angiography d) TMS

(iii) Recall the part of the neuron that receives incoming signals from other neurons.

a) Axon b) Soma
c) Dendrites d) Myelin Sheath

(iv) Associate the correct answer to Thoracic nerves.

a) 8 pairs b) 2 pairs
c) 10 pairs d) 12 pairs

(v) Indicate the part of the cortex that is involved with the coordination and expression of gross and fine motor movements.

a) Frontal eye fields b) Orbitofrontal cortex
c) Primary motor cortex d) Dorsolateral prefrontal cortex

(vi) A person continues to do an activity even when the context is no longer appropriate or rewarded. Indicate what this condition is called.

a) Verbegeration b) Memory loss
c) Perseveration d) Catatonia

(vii) Identify the condition where the patient retains the ability to hear sound per se, but meaning cannot be extracted or assigned.

a) Cortical blindness b) Cortical deafness
c) Astereognosis d) Aphasia

(viii) Identify the condition that is characterized by the inability to retrieve memories from before a brain injury.

a) Retrograde amnesia
b) Anterograde amnesia
c) Korsakoff's Syndome
d) Transient global amnesia

(ix) Report the name of the vitamin, the deficiency of which is associated with Korsakoff Syndrome.

a) Vitamin B1
b) Vitamin C
c) Vitamin B12
d) Vitamin D

(x) Choose the most probable cause of primacy effect.

a) Items are presented slowly
b) Earlier items in a list are more likely to be rehearsed
c) The most recent items are still in short-term memory
d) Items at the beginning of a list are inherently easier to recall

(xi) Indicate the hormone responsible for the fight or flight response.

a) Cortisol
b) Norepinephrine
c) Aldosterone
d) Estrogen

(xii) Infer what is going to be impaired due to damage in Spinal accessory nerve.

a) Hearing
b) Smelling
c) Swallowing
d) Shoulder Shrugging

(xiii) Indicate which of the following is not a function of the trigeminal nerve.

a) Chewing
b) Smiling
c) Facial sensation
d) Eye movement

(xiv) Indicate the type of waves that is associated with meditation and relaxation.

a) Alpha
b) Beta
c) Delta
d) Theta

(xv) Identify the method that is non-invasive and helps in brain structure imaging.

a) MRI
b) Stereotaxic surgery
c) Chemical lesion
d) Electrical lesion

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Group-B

(Short Answer Type Questions) 3 x 5=15

2. Define the Central Nervous System and its core components. (3)
3. Explain the structure of a synapse. (3)
4. Define the role of the hippocampus in the neurological basis of learning and memory. (3)
5. Summarize the role of Thyroxine (T4) in the body. (3)
6. Express the role of menopause on mood and cognition. (3)

OR

Infer the role of growth hormone in physical and psychological development. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Illustrate the structure and function of the Limbic system. (5)
8. Appraise the occipital syndrome. (5)
9. Report the role that hormones play in the development of secondary sex characteristics in humans. (5)
10. Discuss the role of different brain structures in the formation of new memories. (5)
11. Interpret the role of frontal lobe damage in the pathology of schizophrenia. (5)
12. Explain the different magnetic field based imaging techniques. (5)

OR

Explain the mechanism involved in CT scan of brain. (5)

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