



BRAINWARE UNIVERSITY

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Term End Examination 2023-2024
Programme – M.Sc.(APSY)-2022/M.Sc.(APSY)-2023
Course Name – Applied Cognitive Psychology & Neuropsychology
Course Code - APSY101
(Semester I)

Time : 2:30 Hours

Full Marks : 60

[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 the primary function of the cerebral cortex.
- a) Regulating involuntary functions like breathing and heart rate
 - b) Processing and integrating sensory information
 - c) Controlling basic survival instincts
 - d) Balancing the body during movement
- (ii) How does selective attention relate to consciousness?
- a) It refers to the ability to focus on specific information while ignoring other stimuli.
 - b) It is the state of being fully awake at all times.
 - c) It is a form of meditation.
 - d) It is unrelated to consciousness.
- (iii) Imagine a situation where a person is in a deep state of meditation. Select the level of consciousness which is this individual likely experiencing.
- a) Altered state of consciousness
 - b) Higher state of consciousness
 - c) Lower state of consciousness
 - d) Normal state of consciousness
- (iv) Which neurotransmitter is associated with feelings of pleasure and reward?
- a) Serotonin
 - b) Dopamine
 - c) Acetylcholine
 - d) GABA
- (v) According to the Integrated Information Theory (IIT), identify what is the measure of consciousness?
- a) The number of neurons firing in the brain.
 - b) The degree of information integration within a system.
 - c) The amount of sensory input processed.
 - d) The level of neural synchrony.
- (vi) Differentiate top-down and bottom-up attentional processes.
- a) Top-down involves automatic responses, while bottom-up involves deliberate control.
 - b) Top-down is goal-driven, while bottom-up is stimulus-driven.
 - c) Top-down is driven by external stimuli, while bottom-up is guided by prior knowledge.
 - d) Top-down involves peripheral vision, while bottom-up focuses on central vision.

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- (vii) Select the cognitive process which involves organizing information into meaningful structures.
 - a) Memory
 - b) Perception
 - c) Attention
 - d) Language
- (viii) Name the type of memory which involves the temporary storage of sensory information.
 - a) Long-term memory
 - b) Short-term memory
 - c) Sensory memory
 - d) Semantic memory
- (ix) Define neuropsychology.
 - a) The study of the brain's structure
 - b) The study of behavior and cognition in relation to brain function
 - c) The study of neurotransmitter chemistry
 - d) The study of cognitive development in children
- (x) Which cognitive process describes the organization of information into meaningful structures to aid memory?
 - a) Encoding
 - b) Retrieval
 - c) Rehearsal
 - d) Chunking
- (xi) Select from the following which is a common method used in neuropsychology to assess brain function.
 - a) Functional MRI (fMRI)
 - b) IQ testing
 - c) Personality assessments
 - d) Projective tests
- (xii) Identify the primary focus of the "Knowledge" stage in enhancing creativity.
 - a) Applying concepts
 - b) Recalling facts and information
 - c) Analyzing ideas
 - d) Creating new solutions
- (xiii) Empathy in emotional intelligence relates to:
 - a) Lacking concern for others' feelings
 - b) Manipulating others' emotions
 - c) Understanding and sharing the emotions of others
 - d) Avoiding social situations
- (xiv) Select what area of the brain contains the cerebellum?
 - a) Cerebral cortex
 - b) Midbrain
 - c) Hindbrain
 - d) Frontal lobe
- (xv) Select which brain region is responsible for processing visual information?
 - a) Medulla oblongata
 - b) Thalamus
 - c) Occipital lobe
 - d) Cerebral cortex

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. What functions do the autonomic nervous system and somatic nervous system act differently? (3)
- 3. Discuss the stages of memory processing. (3)
- 4. Explain the investment theory of creativity in a few words. (3)
- 5. Write a short note on polygraph. (3)
- 6. Write about the role of the myelin sheath in neural transmission. (3)

OR

Write about the major components of the limbic system. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Describe the lobes of the cerebral cortex. (5)

8. Describe Baddeley and Hitch's model of working memory in detail, including its components and how they interact to process information.
9. Illustrate the major components of brain.
10. Explain the Information Processing Approach.
11. Critically evaluate the concept of consciousness.
12. Evaluate the concept of depth perception and its importance.

OR

Evaluate the relationship between creativity and thinking.

(5)

(5)

(5)

(5)

(5)

(5)

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