



BRAINWARE UNIVERSITY

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Term End Examination 2024-2025

Programme – B.Sc.(PA)-2021/B.Sc.(PA)-2022

Course Name – Basic Neurology & Psychology

Course Code - BPAE504B

(Semester V)

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) Select the non-inhibitory neurotransmitter.
 - a) GABA
 - b) Serotonin
 - c) Glutamate
 - d) None of these
- (ii) Select the correct statement about ionotropic receptors:
 - a) They are slower than metabotropic receptors.
 - b) They directly regulate gene expression.
 - c) They act as ligand-gated ion channels.
 - d) They are G-protein coupled receptors.
- (iii) Personality disorders stem largely from gradual development of _____. Choose the correct option.
 - a) Debilitating reactions to stress.
 - b) Anxious environmental scenario.
 - c) inflexible and distorted personality behavioral patterns.
 - d) Maladaptive perception in behaviour to external stimuli.
- (iv) _____ is the innate predisposition to behave in a particular manner. Select the correct option?
 - a) Personality.
 - b) Temperament.
 - c) Character.
 - d) Behaviour.
- (v) Select the correction option for differentiating characteristic clinical feature between Bipolar disorder and Major depressive disorder?
 - a) Mania.
 - b) Hypersomnia or insomnia.
 - c) Interference with the normal body functioning.
 - d) All of these.
- (vi) Choose the correct option for differentiation between shyness and introversion?

- a) Innate character vs fear of expression. b) Character vs behaviour.
c) Personality vs amenable. d) All of these
- (vii) _____ is the major aetiology for depression and anxiety. Select the correct option?
a) Ill-defined goal. b) Superiority Complex.
c) Expectation-performance Mismatch. d) None of these.
- (viii) Select the correct therapeutic technique in which rhythmic and synchronised sound waves are being administered on the patients while managing a long chronic situation suffered?
a) Speech Therapy. b) Acoustic Therapy.
c) Music Therapy. d) None of these.
- (ix) Which of the following is not a type of Anxiety Disorder?
a) Sociophobia. b) PTSD.
c) OCD. d) GAD.
- (x) Which one of the following approaches tries to analyze human behaviour in terms of stimulus-response units acquired through the process of learning, mainly through instrumental conditioning. Identify the correct option?
a) Cognitive Approach. b) Dynamic and Psychoanalytic Approach.
c) Stimulus-Response Behaviouristic Approach. d) Existential Approach.
- (xi) Identify the location where muscarinic receptors are predominantly found:
a) Neuromuscular junctions b) Autonomic ganglia
c) Effector organs of the parasympathetic nervous system. d) None of these.
- (xii) Identify the ionotropic glutamate receptor subtype involved in fast synaptic transmission:
a) NMDA receptor b) AMPA receptor
c) GABA receptor d) Dopamine receptor
- (xiii) Identify the hallmark motor symptoms of Parkinson's disease:
a) Tremor, bradykinesia, rigidity, and postural instability b) Paralysis, muscle wasting, and fasciculations
c) Spasticity, hyperreflexia, and clonus d) Dystonia, hemiparesis, and spastic gait
- (xiv) Select the muscle tone abnormality characteristic of Parkinson's disease:
a) Spasticity b) Rigidity (lead-pipe or cogwheel)
c) Hypotonia d) Clonus
- (xv) Name the phenomenon characterized by sudden, brief, involuntary movements caused by long-term Parkinson's treatment:
a) Myoclonus b) Dyskinesia
c) Dystonia d) None of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain how long-term potentiation (LTP) contributes to the strengthening of synapses in long-term memory. (3)
3. Classify cerebral stroke and its primary causes. (3)
4. Explain the causes of an Amnesic syndrome. (3)
5. Discuss the reason for which loneliness can be encountered in self-centered individual. (3)
6. Explain the role of dopamine as a neurotransmitter in the central nervous system. (3)

OR

- Compare between the nicotinic and muscarinic acetylcholine receptors. (3)

Group-C
(Long Answer Type Questions)

5 x 6=30

7. Compare Dementia with Lewy bodies & Parkinson's disease dementia with features. (5)
8. A 45 years old female patient visited the clinic with the complains of inaffectual urge for defaecation, with muddy glue like brownish stool, feeling of lower confidence before any important engagement due to the constant feeling of discomfort. On enquiry, a state of anxiety is encountered. What will be the provisional diagnosis? Draw a flow chart by which you can explain how anxiety can be connected with the bowel activity? (5)
9. Describe the Circle of Willis and its anatomical components. (5)
10. Define the molecular changes in the brain that occur during the progression of Alzheimer's diseases, focusing on abnormal protein accumulation. (5)
11. What is Seizure? How will you going to classify Seizures? Construct a comparison among different types of seizures? (5)
12. Differentiate between UMNL & LMNL (5)

OR

- What is Headache? How will you going to classify the headache according to the onset? (5)
Explain the SUNCT in brief.
