

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2023 – 2024 & thereafter)

B. Sc. DEGREE EXAMINATION, NOVEMBER 2024
PSYCHOLOGY
FIRST SEMESTER

COURSE : MAJOR – CORE
PAPER : BIOLOGICAL PSYCHOLOGY – I
SUBJECT CODE : 23PY/MC/BP14
TIME : 3 HOURS **MAX.MARKS:100**

Q. No.	SECTION A (10 x 3=30) ANSWER ALL THE QUESTIONS NOT EXCEEDING 50 WORDS	CO	KL
1.	Define local neurons.	CO1	K1
2.	Define Biopsychology.	CO1	K1
3.	What are the primary functions of the superior and inferior colliculi in the midbrain?	CO1	K1
4.	Highlight the significance of a) action potential b) resting potential c) refractory period.	CO1	K1
5.	List the functions of the thalamus.	CO1	K1
6.	Describe the significance of Cajal's use of Golgi's staining method in his research.	CO2	K2
7.	During the rise of the action potential, do sodium ions move into the cell or out of it? Infer.	CO2	K2
8.	Differentiate between RNA and DNA.	CO2	K2
9.	Illustrate the classification of the nervous system using a flow chart.	CO2	K2
10.	Explain Korsakoff's syndrome.	CO2	K2
Q. NO.	SECTION B (5 X 8=40) ANSWER ALL THE QUESTIONS NOT EXCEEDING 400 WORDS	CO	KL
11.	a) Examine the organization of cerebral cortex. (or) b) Explain the key structures of forebrain and how these structures contribute to the regulation of basic life functions?	CO4	K4

12.	a) Analyze the functions and significance of brain ventricles in the central nervous system. (or) b) Infer the role of Glia cells.	CO4	K4
13.	a) How does Myelin Sheath play a role in Saltatory Conduction. (or) b) Analyze the role of neurotransmitters.	CO4	K4
14.	a) How does the Blood brain Barrier impact the way we develop medicines for brain related conditions. (or) b) Assess the relationship among EPSP, IPSP, and action potential.	CO5	K5
15	a) How do the principles of Mendelian genetics influence the inheritance patterns of traits in living organisms, and how can these patterns be observed in various genetic crosses? (or) b) Do observed differences in individuals depend on differences in heredity or differences in environment ? Justify.	CO5	K5
Q. NO.	SECTION C (2 X 15=30) ANSWER ANY 2 QUESTIONS NOT EXCEEDING 800 WORDS	CO	KL
16.	Explain how the brain controls different body functions, and what are some of the basic structures that make up the brain?	CO3	K3
17.	Examine the different lobes of the cerebral cortex.	CO3	K3
18.	Diagrammatically interpret the anatomy of neurons.	CO3	K3
19.	Examine the ethical debate surrounding animal research and its impact on ethics in science.	CO3	K3
