

TB242685C

Reg. No : .....

Name : .....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024

2023 ADMISSIONS REGULAR

SEMESTER II - Psychology COMPLEMENTARY COURSE 1

ZY2B02B23 - Biological Basis of Behaviour II

Time : 3 Hours

Maximum Marks : 80

**Part A**

**I. Answer any Ten questions. Each question carries 2 marks**

**(10x2=20)**

1. Write a short note on heredity? Explain why children look like their parents?
2. Explain four types of nitrogen bases of DNA? Describe the pairing of these Nitrogenous bases in DNA?
3. Write down and explain the phenotypic ratio of the F<sub>2</sub> generation in a monohybrid cross?
4. Mention the physiological mechanisms involved in hunger?
5. Explain the external cues exhibited in resulting the desire for sexual activity?
6. Explain the role of pituitary gland in puberty period of females and discuss the development of secondary sexual characteristics during puberty period?
7. List the anatomical changes during stress.
8. State any four stress related diseases.
9. Discuss on how stress and emotions are connected.
10. Write a short note on Circadian rhythms and biological clock?
11. Indicate the effects of over arousal with examples.
12. Summarise on the different uses of EEG.

**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Describe the principles of Mendelian Inheritance?
14. Write a short note on Autosomal anomalies?
15. Explain the causes of gene mutation? Write down how Somatic Mutations differs from Gametic Mutations?
16. Explain in detail the emotional symptoms of stress.
17. Describe the physiological aspects of stress and strain.
18. Explain with examples the different types of stress.
19. Explain the role of hypothalamic pituitary adrenal system in stress.
20. Are dreams connected to REM sleep? If so, how? Explain circadian cycle?
21. Discuss on the physiological changes during sleep.

**Part C**

**III. Answer any Two questions. Each question carries 15 marks**

**(2x15=30)**

22. Give a detailed account on the Characters and contrasting traits Mendel used for his study to derive the principles of genetics?
23. Explain the role of hypothalamus in fear and anger?
24. Elaborate on the hormonal, physiological and anatomical indicators of stress. Explain how stress overload can cause diseases with examples.
25. Differentiate between arousal and wakefulness. Discuss on the biological functions of sleep.

