

D1BPS2302

Reg.No.....

Name:

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2023

(Regular/Improvement/Supplementary)

PSYCHOLOGY

GPSY1C01T: HUMAN PHYSIOLOGY

Time: 2 Hours

Maximum Marks: 60

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 20 Marks)

1. What are the three tenets of cell theory?
2. What is cell cycle?
3. Write any four major differences between unicellular and multicellular animals.
4. What are multiple alleles? Give an example.
5. Mention the functions of epithelial tissue.
6. Classify chromosomes based on the position of the centromere.
7. Explain recessive mutation with an example.
8. What are polysomes? Mention its function.
9. Differentiate somatic mutation from gametic mutation.
10. What is Phenylketonuria?
11. What are disaccharides? Give two examples.
12. A deletion in the short arm of chromosome 5 leads to a disorder in humans. Explain.

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 30 Marks)

13. Define karyotype with human karyotype as an example. How does it differ from Idiogram?
14. Briefly explain the changes in chromosomes during mitosis with the help of diagrams.
15. Briefly discuss sex chromosomal anomalies with any two examples.
16. With suitable examples explain genotype, phenotype, homozygosity, and heterozygosity.
17. Explain the genetics and phenotypic features of Down's syndrome.
18. Genetic content of cells is halved as a result of meiosis. Explain.
19. Explain epistasis with an example.

SECTION C: Answer any *one* question. Each carries *ten* marks.

20. Briefly discuss the functions of various organelles in a eukaryotic animal cell.
21. Discuss semi-conservative model of DNA replication. Use suitable illustrations.

(1 x 10 = 10 Marks)