



M 7172

Reg. No. :

Name :

V Semester B.Sc. Degree (CCSS-Reg./Supple./Imp.)

Examination, November 2014

CORE COURSE IN ZOOLOGY

5B08 ZLG(A) : Human Genetics (Elective)

Time : 3 Hours

Max. Weightage : 25

I. Essay. Answer any one. Weightage 4.

1. What is human genome project ? Explain the goals achieved in Human Genome Project.
2. Describe sex chromosomal abnormalities. (1×4=4)

II. Essay. Answer any one. Weightage 4.

3. What is pedigree analysis ? Describe the symbols used in pedigree construction.
4. Describe the structure and diversity of immunoglobulins. (1×4=4)

III. Short essay. Answer any four. Weightage 2 each.

5. What is chromosome banding ? Describe different banding techniques.
6. Describe the chromosomal abnormalities associated with cancer.
7. What is gene therapy ? Explain ex-vivo and in-vivo gene therapy.
8. Explain the genetic basis and inheritance of thalassemia.
9. What is the difference between pharmacogenetics and ecogenetics ?
10. Explain the various aspects discussed in London Conference.
11. Give an account on proto oncogens. (4×2=8)

P.T.O.

IV. Answer **any seven**. Weightage **1 each**.

12. Explain briefly X-linked disease.
13. What is Eugenics ?
14. Write a short note on neurofibromatosis.
15. How can we identify a person with Klinefelters syndrome ?
16. What are autoimmune disorders ?
17. Explain the significance of DNA finger printing.
18. What are tumour suppressor genes ?
19. PCR.
20. What metabolic defect causes alkaptonuria ?
21. What is R-banding ? (7×1=7)

V. Answer the following. Weightage **1 each**.

22. a) Albinism is a _____ disease.
 - b) _____ symbol designates monozygotic twins in pedigree.
 - c) ASD stands for _____
 - d) In HBS glutamic acid is replaced by _____
23. Match the following :
- | | |
|----------------------|-------------------|
| a) Antibody | – Genetherapy |
| b) DNA amplification | – Down syndrome |
| c) Trisomy 21 | – B cells |
| d) Vectors | – PCR |
| | – Edward syndrome |
- (2×1=2)
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