



M 9833

Reg. No. : .....

Name : .....

**V Semester B.Sc. Degree (CCSS-Reg./Supple/Imp.)**  
**Examination, November 2015**  
**CORE COURSE IN ZOOLOGY**  
**5B08 ZLG(A) : Human Genetics (Elective)**

Time : 3 Hours

Maximum Weightage : 25

- I. Answer **any one**. Weightage **4 each**. (1×4=4)
- 1) Describe DNA sequencing. Write the significance of PCR in DNA sequencing.
  - 2) Explain the procedures used in DNA fingerprinting. Add short notes on role of DNA fingerprinting in forensic science.
- II. Answer **any one**. Weightage **4 each**. (1×4=4)
- 3) Explain the role of banding techniques for the identification of human chromosome.
  - 4) How can you distinguish trisomy 21 from trisomy 18 and 13?
- III. Answer **any four**. Weightage **2 each**. (4×2=8)
- 5) Write short notes on autoimmune diseases.
  - 6) Discuss the relevance of gene therapy in modern biology.
  - 7) Describe various symbols used in pedigree analysis.
  - 8) What is Ecogenetics?
  - 9) Explain the inheritance and genetic basis of sickle cell anaemia.
  - 10) Write notes on ISCN.
  - 11) Describe the main objectives of Human Genome Project.
- IV. Answer **any seven**. Weightage **1 each**. (7×1=7)
- 12) What are carcinogens?
  - 13) What is Chicago conference?

P.T.O.



- 14) Describe the structure of antibody.
- 15) What is porphyria ?
- 16) Explain the reasons for albinism.
- 17) What is southern blotting ?
- 18) How is colour blindness tested ?
- 19) Discuss the common characters seen in Klinefelters syndrome.
- 20) What is Q banding ?
- 21) What is achondroplasia ?

V. Answer the following. Weightage **1 each** : **(2x1=2)**

- 22) a) Trisomy 18 is also called
  - b) Abnormal transport of chloride and sodium across an epithelium, leading to thick, viscous secretions is a disease called
  - c) XO(2n - 1) refers to
  - d) VSD refers to
- 23) Match the following :
- |                   |   |                            |
|-------------------|---|----------------------------|
| a) Polyclonal     | - | Holandric gene             |
| b) Y chromosome   | - | Autosomal dominant disease |
| c) Foetoscopy     | - | Sex linked disease         |
| d) Achondroplasia | - | Antibody                   |
|                   | - | Reproductive technique     |