



DCGN – 401

IV Semester B.Sc. Examination, September/October 2023

(NEP – Freshers)

GENETICS

Human Genetics and Genetic Counselling

Time : 2½ Hours

Max. Marks : 60

Instruction : Draw diagrams **wherever** necessary.

PART – A

I. Answer **any four** of the following : (2×4=8)

- 1) What is Fluorescence Activated Cell Sorter ?
- 2) Write a note on diabetes.
- 3) Define Antibodies. What are the properties of antibodies ?
- 4) What is immunization ?
- 5) Discuss Fetal Cardiography.
- 6) What is Stem Cell therapy ?

PART – B



II. Answer **any four** of the following :

(4×5=20)

- 7) Explain Multifactorial inheritance with respect to Congenital malformations.
- 8) Write a note on Graft rejection and immunosuppressors.
- 9) Discuss X-linked Dominant inheritance pattern of Hypophosphatemia.
- 10) Brief on Antibody gene Rearrangement.
- 11) Explain the properties of SCID Stem Cells.
- 12) Mention the Acts and Amendments of Genetic Counselling.

P.T.O.



PART – C

III. Answer **any four** of the following :

(4×8=32)

13) Explain Y-linked inheritance holandric gene with Testis determining factor.

14) Discuss the immunity types and immune responses.

15) Explain Non invasive method of Prenatal diagnosis with respect to ultrasonography.

16) Discuss the roles and responsibilities of Counsellor and Consultant.

17) What is MHC ? Explain its types.



(4×2=20)