



V Semester B.Sc. Examination, November/December 2018
(Semester Scheme) (CBCS/NS) (F+R)
GENETICS – VI
Basic Human Genetics

Time : 3 Hours

Max. Marks : 70

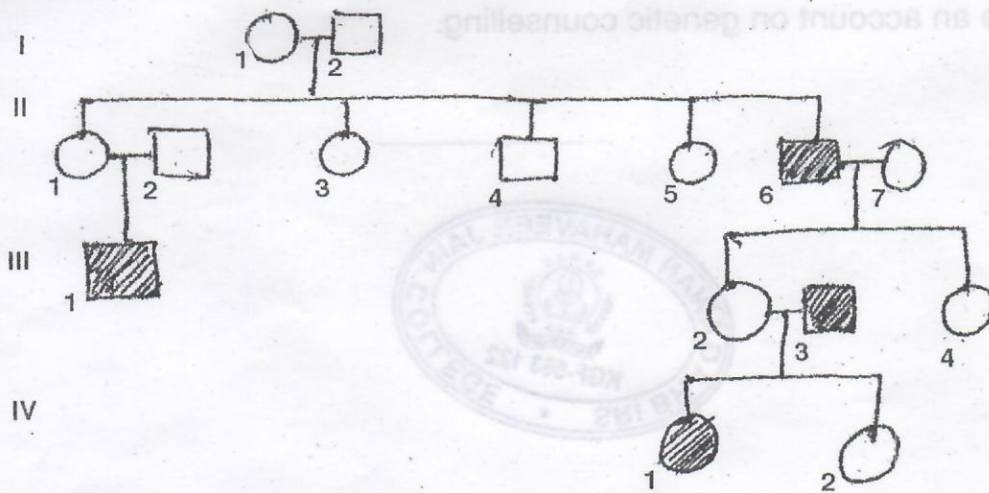
Instructions : i) Answer should be written completely in **English**.
ii) Draw diagram **wherever** necessary.

PART – A

- I. Answer **any five** of the following : (5×3=15)
- 1) What is flow karyotyping ?
 - 2) Write a note on sickle cell anemia.
 - 3) Briefly explain chromosomal abnormality in acute promyelocytic leukemia.
 - 4) Distinguish between Benign and malignant tumours.
 - 5) Write short notes on T-cells of immune system.
 - 6) Comment on Whorl pattern in Dermatoglyphics.
 - 7) Briefly explain fetoscopy.

PART – B

- II. Answer **any five** of the following : (5×5=25)
- 1) Analyse the given pedigree. Justify with reasons.



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- 2) Explain Fluorescence activated cell sorter system.
- 3) Write a note on class I MHC.
- 4) What are tumour suppressor genes ? Explain with an example.
- 5) Comment on Flexion crease of dermatoglyphics.
- 6) Give an account on Amniocentesis.
- 7) Differentiate between carcinoma and sarcoma.

PART - C

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

(2×10=20)

- 1) Describe the genetics and inheritance patterns of :
 - a) Duchenne muscular dystrophy
 - b) Neurofibromatosis.
- 2) Explain in detail the properties of malignant cells.
- 3) Define eugenics. Explain in detail positive and negative eugenics.
- 4) Describe gene therapy with reference to haemophilia.

PART - D

IV. Answer **any one** of the following.

(1×10=10)

- 1) Describe :
 - a) Graft rejection
 - b) Innate and acquired immunity.
- 2) Give an account on genetic counselling.

