



NS – 368

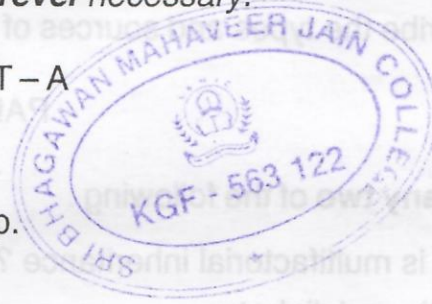
V Semester B.Sc. Examination, November/December 2016
(Semester Scheme) (CBCS/NS) (F+R)
GENETICS – VI
Basic Human Genetics

Time : 3 Hours

Max. Marks : 70

- Instructions** : 1) Answers should be written completely either in **Kannada** or in **English**.
2) **Draw diagrams wherever necessary.**

PART – A



I. Answer **any five** of the following :

(5×3=15)

- 1) Briefly write a note on Xg blood group.
- 2) Comment on Paris nomenclature.
- 3) What these following pedigree symbols represent ?

a)

b)

c)

- 4) Define acquired immunity.
- 5) What are B-cells ?
- 6) Distinguish between Euphenics and Euthenics.
- 7) Write short note on 'Flexion creases'.

PART – B

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

(5×5=25)

- 1) Explain the inheritance of sickle cell anaemia.

P.T.O.



- 2) A girl of normal vision whose father was colourblind marries a man of normal vision whose father was also colourblind. What type of vision can be expected in their offsprings ? Construct a pedigree chart with genotype of all individuals.
- 3) Give an account on X-linked agammaglobulinaemia.
- 4) Write the properties of cancer cells.
- 5) Explain the chromosomal abnormalities associated with Acute Promyelocytic Leukemia.
- 6) Comment on the advantages and limitations of dermatoglyphics.
- 7) Describe the types and sources of stem cells.

PART - C

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

(2×10=20)

- 1) What is multifactorial inheritance ? Explain it with reference to Rheumatoid arthritis and diabetes.
- 2) Discuss :
 - a) Transplantation.
 - b) Graft rejection.
- 3) Explain :
 - a) Proto oncogenes.
 - b) Cellular oncogenes.
- 4) Describe various procedures used in prenatal diagnosis of hereditary diseases .



PART - D

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

(1×10=10)

- 1) Explain in detail various stages of genetic counselling.
- 2) Write an essay on human genome project and add a note on its significance.