



DCGN 201

II Semester B.Sc. Examination, October/November 2022

(NEP Scheme)

GENETICS

Bioinstrumentation and Animal Cell Culture

Time : 2½ Hours

Max. Marks : 60

Instruction : Draw diagrams *wherever* necessary.

SECTION – A

I. Answer **any six** of the following.

(1×6=6)

- 1) Which mirror is used in microscope ?
- 2) Iris Diaphragm.
- 3) What is pH of an water ?
- 4) Define sterilization.
- 5) Electrophoresis.
- 6) Gel Filtration.
- 7) What is animal cell culture ?
- 8) Secondary culture.



SECTION – B

II. Answer **any six** of the following.

(2×6=12)

- 9) What is resolving power of a microscope ?
- 10) Mention the uses of microscopy.
- 11) Give an account on principle of thermometer.
- 12) Write a note on physical sterilizers.
- 13) Explain HPLC.
- 14) Write a note on high speed centrifuge.
- 15) Give an account on contaminations.
- 16) What are the Aseptic techniques followed in Animal cell culture ?

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SECTION – C

III. Answer **any three** of the following. (4×3=12)

- 17) Give the principle and application of phase contrast microscope.
- 18) Give an account on the principle involved in digital thermometer with its applications.
- 19) What is centrifugation ? Explain its principle.
- 20) Write a note on the application of cell culture.

SECTION – D

IV. Answer **any five** of the following. (6×5=30)

- 21) Explain the principle and application of compound microscope.
- 22) Give an account on biological applications of microscopy.
- 23) Explain the principle of pH meter and its components.
- 24) Explain Beer's Lambert's law in spectroscopy.
- 25) Give a detailed account on types of electrophoresis.
- 26) Explain the principle involved in affinity chromatography.
- 27) Give a brief account on animal cell culture.
- 28) Write a note on different types of media.

