Total Pages—2

M.Sc. L.Sc.—IIS (722)

2017

Time : 3 hours

Full Marks : 40

Answer **all** questions

The figures in the right-hand margin indicate marks

Draw neat labelled diagrams wherever necessary

(MOLECULAR BIOLOGY, BIOTECHNOLOGY AND GENETIC ENGINEERING)

1. Describe operon concept with suitable example. 14

Or

Write notes on any *two* : 7×2

(*i*) Types of RNA

(*ii*) Cistron

(*iii*) Structure of DNA polymerase

2. Describe the method of DNA hybridization. Add a note on its application. 13

Or

Write notes on any *two* : $6\frac{1}{2} \times 2$

(*i*) C-value paradox

(*ii*) Sanger method

(*iii*) Repetitive *vs.* non-repetitive DNA sequence.

3. Describe the principles and types of chromatography. 13

Or

Write notes on any *two* : $6\frac{1}{2} \times 2$

(*i*) SDS PAGE *vs.* Native PAGE

(*ii*) Fluorescence microscopy

(*iii*) Spectrophotometer.

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