

2018

Time : 2 hours

Full Marks : 40

Answer all questions

*The figures in the right-hand margin indicate marks*

*Candidates are required to answer in their own words  
as far as practicable*

Draw neat labelled diagrams wherever necessary

**(MOLECULAR BIOLOGY, BIOTECHNOLOGY  
AND GENETIC ENGINEERING)**

1. Give a brief account on regulation of Gene expression. 14

Or

Write notes on any two of the followings :

- (i) Double helical structure of DNA 7 × 2  
(ii) DNA replication  
(iii) Muton.

( Turn Over )

2. Write about the method of DNA hybridization and its applications. 13

Or

Write notes on any two of the followings :

- (i) Nucleic acids  $6\frac{1}{2} \times 2$   
(ii) C-value paradox  
(iii) Proteins.

3. Describe the principles and types of Chromatography. 13

Or

Write notes on any two of the followings :

- (i) SDS PAGE  $6\frac{1}{2} \times 2$   
(ii) Spectrophotometry  
(iii) Centrifugation.