



**PAS-1603120102020600** Seat No. \_\_\_\_\_

**M. Sc. (Biochemistry) (Sem. II) (CBCS) Examination**

**August / September - 2020**

**CBC - 6 : Molecular Biology**

Time : Hours]

[Total Marks : 70

**1** Answer the following : (Any **Seven** out of Ten) **14**

- (1) DNA Polymerase II and IV
- (2) Phagemid
- (3) Plasmid
- (4) RFLP
- (5) Guanine
- (6) RAPD
- (7) Consensus sequence
- (8) Difference between SNP and Mutation
- (9) Operon
- (10) Thymine

**2** Answer the following : (Any **Two** out of three) **14**

- (1) Explain the initiation & regulation of DNA replication in Eukaryotes.
- (2) Draw the structure of Purines & Pyrimidines in DNA and explain molecular bonding pattern.
- (3) Prokaryotic and eukaryotic DNA polymerases.

**3** Answer the following : **14**

- (1) Prokaryotic transcription
- (2) Translation in detail.

**OR**

**3** Answer the following : **14**

- (1) Lac operon
- (2) Activity of amino acyl tRNA synthetase and structure of tRNA

- 4 Answer the following : (Any **Two** out of three) **14**
- (1) Explain western blotting.
  - (2) Discuss Maxam - Gilbert's and Pyrosequencing method of DNA sequencing.
  - (3) Characteristics and significance of different Vectors.
- 5 Answer the following : (Any **Two** out of four) **14**
- (1) Write advantages and disadvantages of Molecular test.
  - (2) Explain RFLP and AFLP methods.
  - (3) Explain about RAPD, SSRs and SCAR.
  - (4) Explain about Real time PCR and conventional NCR.
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