



JAZ-1603120602030100 Seat No. _____

M. Sc. (Biochemistry) (Sem. III) (CBCS) Examination

December - 2019

EBC - 1 : Microbial Biochemistry

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 Answer briefly any **seven** of the following questions : 14
- (1) Explain catabolite repression.
 - (2) Write a short note on generalised transduction.
 - (3) Write a short note on Rhizobia.
 - (4) Explain: operon system
 - (5) State the symptoms of hepatitis A virus infection.
 - (6) Write a short note on bacteriophage Φ X174.
 - (7) Role of nitrogenase enzyme.
 - (8) Describe lysogenic cycle.
 - (9) What are disk diffusion tests ?
 - (10) State the function and mode of action of fluconazole.
- 2 Answer any **two** of the following questions : 14
- (1) Write about causative agent and symptoms of Herpes.
 - (2) Write a note on how Nitrogen cycle functions in nature.
 - (3) Explain the tryptophan operon.
- 3 (1) Explain in depth : Lac Operon. 7
- (2) Write a note on antibiotics that inhibit cell wall synthesis. 7
- OR**
- 3 (1) Describe in detail methods for cultivation and enumeration of viruses. 7
- (2) Write a note on mode of action of two antiviral drugs. 7
- 4 Answer the following questions : 14
- (1) Explain the process of bacterial transformation.
 - (2) Discuss about antibiotics which are inhibitors of protein synthesis.
- 5 Answer the following questions : (any **two**) 14
- (1) Describe the classification of virus.
 - (2) Explain Griffith's transformation experiment.
 - (3) Give the mechanisms for drug resistance in bacteria.
 - (4) What is the mechanism of Influenza infection?