



AH-651

Seat No. _____

B. Sc. (Sem. VI) Examination

March - 2019

Microbiology : MB - 604

(Bioprocess Technology)

(Core Compulsory)

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Answer any two questions from following : 12
- (1) Enlist SCP production methods and explain any one of them.
 - (2) Write a detailed note on MEOR.
 - (3) Enlist methods of bioleaching and explain any one of them.
- (b) Answer any two questions from following : 6
- (1) Enlist organisms involved in SCP production.
 - (2) Give types of biofertilizers.
 - (3) Write applications of biofertilizer.
- 2 (a) Answer any two questions from following : 12
- (1) Current advances and future prospects of microorganisms.
 - (2) Primary and secondary screening of industrially important microorganisms.
 - (3) Strain improvement of genetic engineering method.

- (b) Answer any two questions from following : 6
- (1) Define Secondary metabolites and enlist secondary metabolites.
 - (2) Define : Autotrophic mutant and primary metabolites.
 - (3) Enlist advanced techniques used for strain improvement.
- 3 (a) Answer any two questions from following : 12
- (1) Give a detailed note on combined method in industrial fermentation control system.
 - (2) Discuss in detail scale up of industrial products.
 - (3) Give a detailed note on Biosensor.
- (b) Answer any two questions from following : 6
- (1) Explain the term fermentation control.
 - (2) Explain the term automatic control system with one suitable example.
 - (3) Give the difference between scale up and control system in fermentation.
- 4 Answer any two questions from following : 16
- (1) Fermentation economics for isolation and strain improvement.
 - (2) Fermentation economics for sterilization and aeration and agitation.
 - (3) Fermentation economics for media design and effluent treatments.
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