



GAZ-481

Seat No. _____

B. Sc. (Sem. VI) Examination

March / April - 2017

MI-604 : Microbiology

(Bioprocess Technology)

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Answer the following : (any two) **15**
- (a) Microbial production of SCP.
 - (b) Tertiary methods of MEOR
 - (c) Biofertilizers
- (b) Answer in brief : **3**
- (a) What is BT cotton ?
 - (b) Which secondary metabolite of the micro-organisms helps in the microbial enhanced recovery of oil ?
 - (c) Name two organisms used for Bioleaching.
- 2 (a) Answer the following : (any two) **15**
- (a) Overproduction of primary metabolites.
 - (b) Use of rDNA technology for strain improvement.
 - (c) Current advances in improvement of industrially important metabolites.

- (b) Answer in brief : 3
- (a) What is cumulative feedback regulation ?
 - (b) Define Analogue resistant mutants.
 - (c) What is auxotrophy ?
- 3 (a) Answer the following : (any two) 15
- (a) Glucose Biosensor
 - (b) Design of an ideal stirred tank reactor.
 - (c) Scale up of industrial process.
- (b) Answer in brief : 2
- (a) Define : Chemostat and Turbidostat
 - (b) What is Pilot Scale ?
- 4 Discuss fermentation Economics for any three 17
of the following :
- (a) Design and construction
 - (b) Media formulation
 - (c) Aeration and Agitation
 - (d) Product recovery.
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