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KE-508

Seat No. _____

Third Year B. Sc. (Sem. V) Examination

October / November - 2017

Biotechnology

(Industrial Biotechnology)

(Elective Course)

Time : 2 Hours] [Total Marks : 50

1 MCQS : (All questions are compulsory) **10**

(1) In dough, starch is digested into sugar through

(1) Amylase (2) Protease

(3) Maltase (4) Lactase

(2) Streptomycin is useful for the treatment of pathogens

(1) gram +ve (2) Gram –ve

(3) Both (1) and (2) (4) None

(3) In penicillin fermentation, pH of culture medium is maintained between

(1) 5 and 6 (2) 4 and 6

(3) 6 and 7 (4) 4 and 5

(4) For the recovery of citric acid after fermentation, $Ca(OH)_2$ is added to the slurry to

(1) Precipitate calcium carbonate

(2) Precipitate calcium citrate

(3) Precipitate calcium sulphate

(4) Precipitate calcium phosphate

(5) Which of the following microorganism is used for the production of citric acid ?

(1) *Lactobacillus bulgaricus*

(2) *Aspergillus niger*

(3) *Saccharomyces cerevisiae*

(4) *Streptomycetes griseus*

(6) Vitamin B 12 is also known as

(1) Cyanocobalamin (2) Phtocobalamine

(3) Systolamine (4) None of these

(7) Vitamin B12 can be estimated and determined by using organism

(1) *Lactobacillus species*

(2) *Bacillus subtilis*

(3) *Lactobacillus leichmanni*

(4) *E.coli*

(8) L-lysine is produced from

(1) *Mycobacterium species*

(2) *Corynebacterium glutamicum*

(3) *Corynebacterium species*

(4) None of these

(9) Edible mushroom is known as

(1) Agaricus campestries

(2) Penicillium

(3) Dikaryon

(4) All of these

(10) SCP is

(1) Edible unicellular m.o.

(2) Non edible unicellular m.o.

(3) Edible multi cellular m.o.

(4) Non-edible multi cellular m.o.

2 Give a short note on following : (any **four**) 20

(1) Bacterial amylase

(2) Recovery steps of citric acid

(3) Outline of streptomycin fermentation

(4) Fermentation of I-Lycine

(5) Application of mushroom

(6) Pathway of vitamin B 12 production

3 Give a detail note on following : (any **two**) 20

(1) Single cell protein

(2) Application and fermentation of protease

(3) Mushroom fermentation

(4) Streptomycin fermentation
