

TKN/KS/16–5939

## Sixth Semester B. Sc. Examination

## BIOTECHNOLOGY

## Paper – I

## (Applications of Biotechnology)

Time : Three Hours ]

[ Max. Marks : 50

- N. B. : (1) All questions are compulsory and carry equal marks.  
(2) Draw diagrams wherever necessary.

1. Describe treatment of water employing Rapid Sand Filter. 10

## OR

- (a) Describe breakpoint chlorination. 5  
(b) Describe the mechanism of trickling filter. 5

2. Write short notes on :—

- (a) Xenobiotics. 5  
(b) Bioaccumulation and biomagnification. 5

## OR

- (c) Indole test : Principle and Procedure. 5  
(d) Membrane filter technique for coliforms from water. 5

3. Describe primary screening methods for isolation of industrially important microorganisms. 10

## OR

Draw a typical fermentor and describe significance of various parts. 10

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Contd.

4. (a) Describe production of cottage cheese. 5  
(b) Describe production and use of spirulina. 5

## OR

- (c) Write a note on GMP. 5  
(d) Describe production of edible mushrooms. 5

5. Answer any **ten** questions :—

- (i) What is biodeterioration ? 1  
(ii) What is meant by sewage ? 1  
(iii) What is activated sludge ? 1  
(iv) What is MPN ? 1  
(v) Define BOD. 1  
(vi) Define coliforms. 1  
(vii) What is the purpose of secondary screening of industrially important organisms ? 1  
(viii) Give two examples of therapeutic compounds produced through genetically modified microorganisms. 1  
(ix) Give names of two antifoaming agents. 1  
(x) Give two examples of ripened cheeses. 1  
(xi) Write names of any two microorganisms which are routinely detected while assessing quality of food. 1  
(xii) What is meant by quality control in food industry ? 1

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