

**T. Y. B. Sc. (Biotechnology) SEM – VI (2010 COURSE) : WINTER -
2018**

SUBJECT: APPLIED BIOTECHNOLOGY

Day: Tuesday
Date: 23/10/2018

W-2018-1202

Time: 10.00 AM TO 01.00 PM
Max Marks. 80

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Both sections should be written in **SEPARATE** answer books.
 - 3) Figures to the right indicate **FULL** marks.
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SECTION - I

- Q.1** Answer any **ONE** of the following (06)
- a) Describe the methods of preservation of natural resources with reference to bamboo preservation.
 - b) How is high fructose corn syrup prepared? Describe in brief.
- Q.2** Answer any **TWO** of the following (10)
- a) Describe the role of pectinases in extraction of fruits juice.
 - b) What are the various by-products that can be obtained from fish processing? What is their significance?
 - c) Describe the properties of support materials that are used for immobilization of enzymes.
- Q.3** Answer any **FOUR** of the following (16)
- a) Give reasons why peanut meal cannot be used as animal feed?
 - b) How can de-hairing of skin be done in an environment friendly way?
 - c) What are nutritional enzymes? Describe briefly.
 - d) What is Rennet? What is its role in dairy industry?
 - e) How can silver be recovered from waste films?

SECTION - II

- Q.4** Answer any **ONE** of the following (06)
- a) What are detergents composed of? What is the importance of enzymes in detergents?
 - b) Discuss the various enzymes important in bakery industry?
- Q.5** Answer any **TWO** of the following (10)
- a) Write a note on value added supplements that can be obtained from grape pomace?
 - b) What is bagasse? What is its significance? How can it be utilized?
 - c) How can drainage clogging of hotels be overcome in environment friendly way?

P.T.O

Q.6 Write short notes on: **(16)**

- a) Papain as a proteolytic enzyme for meat tenderization.
- b) Detection of spoilage of fish.
- c) Staling of bread and how it can be overcome.
- d) Role of lactase in dairy industry.

Q.7 Answer the following **(16)**

- a) Name the enzymes important for paper and pulp industry.
- b) What are the uses of yeast lees as a waste material?
- c) How can chill haze be prevented?
- d) What is the role of Asparaginase in cereal and potato based products.
- e) Which enzymes can hydrolyze pentosans?
- f) Name the microbes used for production of proteolytic enzymes on a large scale.
- g) What are the benefits of fish pepsins for health?
- h) Name artificial sweeteners obtained from plants.

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