

T. Y. B. SC. (BIOTECHNOLOGY) SEM – VI (2010 COURSE) :

WINTER - 2017

SUBJECT: APPLIED BIOTECHNOLOGY

Day: **Wednesday**

Date: **08/11/2017**

Time: **10.00 AM TO 01.00 PM**

Max Marks. 80

W-2017-0963

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.

SECTION - I

- Q.1** Answer any **ONE** of the following **(06)**
- a) Describe the Biotic and Abiotic factors responsible for degradation of bamboo.
 - b) Discuss the various enzymes important in dairy industry.
- Q.2** Answer any **TWO** of the following **(10)**
- a) Describe the enzymes that play an important role in baking industry.
 - b) Discuss the various value added products that can be obtained from banana waste.
 - c) What are the pancreatic enzymes? Describe their importance for health.
- Q.3** Answer any **FOUR** of the following **(16)**
- a) Describe the use and significance of yeast lees.
 - b) Which are the enzymes that are important in baking?
 - c) Describe the action of glucose isomerase? What it used for?
 - d) Write a note of artificial sweeteners obtained from plants.
 - e) Describe the role of lactase and catalase in dairy industry.

SECTION - II

- Q.4** Answer any **ONE** of the following **(06)**
- a) How can meat tenderization be done/ Describe in brief.
 - b) What is the significance of Bagasse? Discuss in brief.
- Q.5** Answer any **TWO** of the following **(10)**
- a) How can environment pollution due to leather processing be controlled?
 - b) What are the properties that a solid support must have to be used for immobilization of enzymes?
 - c) Describe how banana waste can be converted to value added products.

P.T.O

- Q.6** Write short notes on **(16)**
- a) Pectinase in fruit juice extraction
 - b) Fungicides for preservation of bamboo
 - c) Role of catalase in cheese ripening
 - d) Any two meat tenderizing enzymes.

- Q.7** Answer the following **(16)**
- a) Which anti-nutritional factors are present in grape pomace?
 - b) Which organisms are used for producing proteolytic enzymes on large scale?
 - c) Name the enzymes that can hydrolyze collagen and myofibrils?
 - d) What are the health benefits of peptide fractions obtained from fish?
 - e) What are the haze causing agents?
 - f) Which chemical agent is used as volume enhancer in baking?
 - g) Name two materials that are used as builders of detergents.
 - h) Why is detection of adulteration in honey difficult?

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