

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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