

**T. Y. B. SC. (BIOTECHNOLOGY) SEM – VI (2010 COURSE)
: SUMMER - 2018**

SUBJECT: APPLIED BIOTECHNOLOGY

Day: **Monday**
Date: **09/04/2018**

Time: **10.00 am to 01.00 pm**
Max Marks. 80

S-2018-1078

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) Discuss the various enzymes important in processing of dairy products.
- b) Describe the role of enzymes in fruit juice processing in brief.

Q.2 Answer any **TWO** of the following **(10)**

- a) What are the various chemical and biological agents that are used for preserving bamboo?
- b) Discuss utilization of banana waste for value addition briefly.
- c) Discuss artificial sweeteners obtained from plants in brief.

Q.3 Answer any **FOUR** of the following **(16)**

- a) What is gluten? What is its significance in baking?
- b) Describe the role of pancreatic hormones in health.
- c) How can leather processing be made environmentally friendly?
- d) Describe the action of glucose isomerase? What it used for?
- e) What are the haze causing agents? How can it be prevented?

SECTION - II

Q.4 Answer any **ONE** of the following **(06)**

- a) Describe the role of enzymes in de-scaling of fish and fish processing.
- b) Describe the role of enzymes in cheese making.

Q.5 Answer any **TWO** of the following **(10)**

- a) Describe biological cleaning agents in brief.
- b) Discuss the importance of immobilized isomerase for HFCS production.
- c) What are the advantages of immobilized enzymes over soluble enzymes?

P.T.O

- Q.6** Write short notes on **(16)**
- a) Amylases in baking.
 - b) Fungicides for bamboo preservation.
 - c) Meat tenderizing enzymes.
 - d) Difference in action of papain and bromelin.

- Q.7** Answer the following **(16)**
- a) Which enzymes can hydrolyze pentosans?
 - b) What is staling of bread? Which enzyme can be used to prevent it?
 - c) Name the various constituents of grape seed oil.
 - d) What is chill haze? How can it be prevented?
 - e) Name the enzymes of importance for detergents.
 - f) Name two biological agents that can be used as fungicides for preservation of natural resources.
 - g) Which microbes are used for producing “Rennet-like” enzymes for use in cheese making?
 - h) How can formation of acrylamide be prevented in cereal based fried products?

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