

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
(For candidates admitted during the academic year 2015 – 2016)

SUBJECT CODE: 15BT/MC/PB14

B.Sc. DEGREE EXAMINATION NOVEMBER 2015
BRANCH V.A.PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
FIRST SEMESTER

COURSE : CORE
PAPER : PRINCIPLES OF APPLIED BIOTECHNOLOGY
TIME : 3 HOURS MAX. MARKS: 100

SECTION A

(18 X 1 Mark=18)

I. Choose the correct answer

(5 marks)

1. Which of the following is called button mushroom?
a. *Agaricus* sp b. *Pleurotus* sp c. *Volvariella* sp d. *Leutinule* sp
2. Name the enzyme used in coagulation of casein.
a. Chymosin b. Trypsin c. Protease d. Lactase
3. Cyanobacteria are isolated on
a. Nutrient agar medium b. MS medium c. Fogg's medium d. LB medium
4. Which of the following is a natural Penicillin?
a. Ampicillin b. Penicillin G c. Amoxicillin d. Floxacillin
5. In citric acid production ,culture medium is maintained at PH
a. 4.5 b. 3.9 c. 2.5 d. 3.5

II. Fill in the blanks

(5 marks)

6. ----- is an example for algal biofertilizer.
7. Camembert is a ----- type of cheese.
8. Edible mushrooms are rich sources of -----.
9. In bread production, ----- is involved in the expansion and stretching of the dough.
10. The fungus ----- is most commonly used for industrial production of citric acid.

III. State whether the sentence is True /False

(4 marks)

11. The water fern *Azolla* contains alga in the leaf cavity.
12. *Amanita* is an example for poisonous mushroom.
13. Yogurt is produced by fermenting whole milk using mixed culture.
14. Penicillin production is usually carried out by surface fermentation processes.

IV. Match the following**(4 marks)**

- | | | |
|-----------------------|---|--------------------|
| 15. <i>Pleurotus</i> | - | Blood preservative |
| 16. Anabaena | - | cheese |
| 17. Roquefort | - | BGA |
| 18. Trisodium citrate | - | Spawn |

(b) Answer any six in 50 words**(6 x3 = 18 marks)**

19. Biotechnology
20. SCP.
21. Spawn.
22. *Volvariella*.
23. Unripened cheese.
24. Yogurt.
25. Bakers yeast.
26. Antibiotics.
27. Organic acid.

SECTION-B**Answer any four questions in 200 words****(4x6=24marks)**

28. Discuss in brief the scope of Biotechnology.
29. Write an account on nutritive value of edible mushrooms.
30. Write short notes on Yogurt preparation.
31. Give a brief note on bread production.
32. Outline the process of fermentation in Penicillin production.
33. Explain the morphological variations in different types of edible mushrooms.

SECTION-C**Answer any TWO question in 1000 words****(2x20=40marks)**

34. Give a brief account on mass cultivation of *Spirulina* and add a note on its applications.
35. Explain in detail about the cultivation of *Agaricus sp.*
36. Briefly explain the process involved in Cheese production.
37. Write an account on production processes for citric acid and add a note on its applications.
