

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018
(Second Semester)

Branch – APPLIED MICROBIOLOGY

ENVIRONMENTAL, AGRICULTURAL AND FOOD MICROBIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 1 a How will you assess the quality of air? Add a note on transmission of microbes by air.
OR
b How will you check the potability of water by microbiological test?
- 2 a Briefly explain about Nitrogen cycle.
OR
b How will you prevent global warming? Write your valuable suggestion.
- 3 a What is Eutrophication? How to treat the Eutrophication lake. Add a note on oxidation pond & ditches.
OR
b Write about rumen microbial processing. Explain about interaction of microorganisms by animals for food and food processing.
- 4 a How will you isolate plant pathogen? Write about citrus canker and downy mildew.
OR
b How will you determine the quality of milk by MBRT, Resazurine and phosphatase test?
- 5 a Write about principles, methods of food preservation by physical & chemical method.
OR
b Add a note on VAM. Give detailed account of endo and ecto mycorrhizae.

SECTION -B (45 Marks)

Answer any THREE questions

ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 What are the different biological methods for solid waste treatment?
- 7 Explain about isolation of dye degradation microbes. Mention the parameter to check the quality of textile effluent water.
- 8 How does the bioaccumulation of metal occur. Write about detoxification and biodegradation of paper & leather.
- 9 Explain about symbiotic nitrogen fixation by bacteria.
- 10 Give detailed account of fermentation technology in cheese, beer and wine production.