

(6 pages)

Reg. No. :

Code No. : 6392

Sub. Code : HBOM 13

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2013.

First Semester

Botany

MICROBIOLOGY AND PLANT PATHOLOGY

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The process of killing the vegetative forms of microorganism that can cause disease is called
- (a) Germicide
 - (b) Antiseptic
 - (c) Disinfectant
 - (d) Sterilant

2. The microbe used to separate the fibres of jute is
- (a) *Clostridium butylicum*
 - (b) *Lactobacillus*
 - (c) *Bacillus thuringiensis*
 - (d) *Salmonella typhi*
3. Poxviruses is otherwise called as
- (a) Polyoma virus
 - (b) Vaccinia virus
 - (c) Human adenovirus
 - (d) Herpes virus
4. Who isolated the tobacco mosaic virus
- (a) Iwanowsky
 - (b) Mayer
 - (c) Schelsinger
 - (d) Stanley
5. The microbial growth around the roots of plants is called
- (a) Biosphere
 - (b) Phyllosphere
 - (c) Rhizosphere
 - (d) None of the above
6. Botulism is caused by the bacterium
- (a) *Staphylococcus aureus*
 - (b) *Clostridium botulinum*
 - (c) *Bacillus cereus*
 - (d) *Amanita virosa*



7. The antigens which are same among specific groups in the same species is known as
 - (a) Mitogens
 - (b) Heterophil antigens
 - (c) Isoantigens
 - (d) Tumor antigens
8. Adjuvant is used as it
 - (a) Prolongs the life of the cell
 - (b) Enhances the immune response
 - (c) Produces antibodies
 - (d) None of the above
9. The bordeaux mixture contains
 - (a) Copper sulphate:lime:water
 - (b) Ferrus sulphate:lime:water
 - (c) copper sulphate: calcium hydroxide:water
 - (d) Both a and c
10. Red rot of sugarcane is caused by the fungi
 - (a) *Colletotrichum falcatum*
 - (b) *C. lindemuthianum*
 - (c) *C. graminicola*
 - (d) *C. capsici*

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the sterilization methods disinfection.

Or

- (b) Write an essay on the classification of actinomyces.

12. (a) Describe the structure of bacteriophages.

Or

- (b) What is antibiotics? Add a note on their mode of action.

13. (a) List out the significance of soil microorganisms.

Or

- (b) Give an account of microbial spoilage of foods.

14. (a) What is immunity? And add notes on lymphocytes in immunity.

Or

- (b) Describe the types of vaccines.

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15. (a) Write short notes on infection process.

Or

- (b) Describe the biological control of plant diseases.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Write an essay on culture of microorganisms.

Or

- (b) Explain the economic importance of bacteria.

17. (a) Give a detailed account of classification of plant viruses.

Or

- (b) Explain antibiotics and their mode of action.

18. (a) Write an essay on nutrient cycling.

Or

- (b) List out the types of microorganisms in milk.

19. (a) Give a detailed account of structure, types and functions of immunoglobulins.

Or

- (b) Write an essay on immunodeficiency diseases.

20. (a) Describe the classification of plant diseases.

Or

- (b) Explain the following:

- (i) Blast of rice
- (ii) White rust.

