

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2019
(First Semester)

Branch -BOTANY

APPLIED MICROBIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A aO Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10x1 = 10)

- 1 The concentration of agar to obtain semi solid media is
(i) 1.5-20% (ii) 0.5% or less
(iii) >10% (iv) 10% but <20%
- 2 The solidifying agent commonly used in preparation of media is
(i) agar (ii) silica gel
(iii) both (i) and (ii) (iv) none of these
- 3 Urea degrading bacteria
(i) *Bacillus pasturi* (ii) *Aspergillus niger*
(iii) *Micrococcus sp* (iv) *Clostridium pasteurianum*
- 4 Viruses multiplies in
(i) soil (ii) dead tissue
(iii) living tissue (iv) culture medium
- 5 Bacterial chromosome is
(i) single stranded and circular (ii) double stranded and circular
(iii) single stranded and linear (iv) double stranded and linear
- 6 Bacterial cell wall is made up of
(i) chitin (ii) cellulose
(iii) dextran (iv) peptidoglycan
- 7 Considering fermentation at industrial level, microorganism bacillus is used to form
(i) ethanol (ii) formic acid
(iii) acrylic acid (iv) glycerol
- 8 Common example of fermented beverage product is
(i) pickles (ii) beer
(iii) bread and buns (iv) cheese and yogurt
- 9 Aflatoxin is produced by
(i) *Aspergillus sp* (ii) *Salmonella sp*
(iii) *Fusarium sp* (iv) *Streptococcus sp*
- 10 Which of the following statements are true regarding Staphylococcus food poisoning?
(i) Is an enterotoxin (ii) causes gastroenteritis
(iii) is produced by *Staphylococcus aureus* (iv) all of these

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Describe about history and scope of microbiology.
OR
b Determine streak plate method.
- 12 a Evaluate microbial communities in water.
OR
b Justify factors influencing degradation.
- 13 a State the ultra structure of bacterial cell.
OR
b Sketch the reproduction of bacteria.
- 14 a Show the methods of production of lactic acid.
OR
b How will you carry out sterilization in industrial aspects?
- 15 a Illustrate food spoiling organisms.
OR
b What are the factors affecting microbial growth?

SECTION - C 130 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Determine the principle and working mechanism of TEM.
- 17 Analyze the structure and multiplication of TMV.
- 18 Categorize economic importance of bacteria.
- 19 Formulate the fermented foods.
- 20 Determine the food borne diseases.

Z-Z-Z

END