

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**MSc DEGREE EXAMINATION DECEMBER 2018**  
(First Semester)

Branch - **APPLIED MICROBIOLOGY**

**FOOD AND DAIRY MICROBIOLOGY**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks!)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 1 = 10)

- 1 Identify the equation that relates concentration of nutrients & rate of microbial growth.
 

(i) Michaelis - Menten equation	(ii) Monod equation
(iii) Growth law equation	(iv) Henderson - Hasselbach equation
- 2 Which is the pH range for yeast to grow faster in foods?
 

(i) 6-8	(ii) 4.5-6
(iii) 3.5-4	(iv) 2-2.5
- 3 Name the bacteria identified by performing Ring test in Milk.
 

(i) Vibrio Cholerae	(ii) Salmonella typhimurium
(iii) Listeria sp	(iv) Brucella sp
- 4 Which food is associated with Emetic syndrome?
 

(i) Rice	(ii) Fish
(iii) Meat	(iv) Vegetables
- 5 Identify the source of foods in the preparation of fermented Minchin.
 

(i) Rice	(ii) Wheat
(iii) Wine	(iv) Soyabean
- 6 Choose the second principal organism involved in leavening of San Francisco dough bread of
 

(i) Lactobacillus acidophilus	(ii) Torulopsis Holmii
(iii) L. lactis	(iv) L. San Francisco
- 7 Find out the source of milk in Koumiss production.
 

(i) Cow's milk	(ii) Mare's milk
(iii) Buttermilk	(iv) Skim milk
- 8 Identify the bacteria involved in the production of bacteriocin.
 

(i) Lactic acid bacteria	(ii) Bifidobacterium
(iii) Streptococcus	(iv) Leuconostoc
- 9 Which of the following are responsible for implementation of FSSAI?
 

(i) Ministry of Health & Family Welfare	(ii) Ministry of Food Processing Industry
(iii) Department of Agriculture & Cooperation	(iv) Directorate General of Health & Services
- 10 Which are covered under 'Raw material Quality Assurance'?
 

(i) Specifications	(ii) Survey program
(iii) Service	(iv) All of the above

**SECTION - B (25 Marks)**Answer **ALL** questions**ALL** questions carry **EQUAL** Marks ( 5 x 5 = 25)

11 a State spoilage microflora and its sources of contamination in cereal & cereal products.

OR

b Explain preservation using low temperature & effect of freezing on microorganisms in food.

12 a Write a short note on food infection.

OR

b Explain briefly about diseases caused by food-borne fungi.

13 a Give an account on functional foods & nutraceuticals.

OR

b List out in brief sketch on production of oriental foods.

14 a Classify microorganisms involved in the spoilage of milk.

OR

b Write about spoilage of ice-cream & its prevention.

15 a Illustrate various principles involved in food safety.

OR

b State the significance of GMP - Indian & International food laws & regulations.

**SECTION -C (40 Marks)**Answer **ALL** questions**ALL** questions carry **EQUAL** Marks ( 5 x 8 = 40)

16 a Elucidate intrinsic and extrinsic parameters affecting the growth of microorganism in food.

OR

b Explain in detail about the spoilage of meat & poultry foods.

17 a Give an account on detection of food borne pathogens.

OR

b Explain in detail about any three bacterial food borne diseases.

18 a Explain the production of vinegar.

OR

b Write about the production of Bread in Food Industry.

19 a Differentiate spoilage & fermentation by microorganisms in Milk.

OR

b Give a detailed account on microbiological quality of dried milk & infant foods.

20 a Elaborate on assessment of FSSAI regulations and implementation in food industry.

OR

b Explain certification of standards for export products.