

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023  
(Second Semester)

Branch – CLINICAL NUTRITION AND DIETETICS

**MAJOR ELECTIVE COURSE – I: ADVANCED FOOD MICROBIOLOGY/  
DISCIPLINE SPECIFIC ELECTIVE – I: FOOD MICROBIOLOGY**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Name the microorganism that cause candidiasis of mouth, skin and throat.  
(i) *Candida auris* (ii) *Candida albicans*  
(iii) *Candida gatti* (iv) *Candida neoformans*
- 2 At \_\_\_\_\_ redox potential anaerobes can grow in food and possess the ability to produce energy.  
(i) +300 to + 500mv (ii) +300 to + 100mv  
(iii) +100 to -250mv (iv) +600 to + 400mv
- 3 The indicator organism of fecal contamination in water is \_\_\_\_\_.  
(i) *Salmonella* (ii) *Streptococcus*  
(iii) *E.coli* (iv) *Bacillus*
- 4 Name the organism used in fermentation of sauerkraut.  
(i) *L.plantarum* (ii) *L.mesenteroides*  
(iii) *A.oryzae* (iv) *B.natto*
- 5 As per FSSAI the moisture content of whole milk powder should be \_\_\_\_\_.  
(i) Not more than 4% (ii) Not less than 5%  
(iii) Not more than 5% (iv) Not less than 4%

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Discuss the characteristics and morphological features of mold.  
OR  
b Prepare a table of food spoilage and pathogenic bacteria associated with foods.
- 7 a Explain the role of high temperature in arresting the microbial growth.  
OR  
b Show the antimicrobial constituents that affects the growth of microbes.
- 8 a Classify the types of spoilage seen in canned foods.  
OR  
b Sketch the microbes responsible for spoilage of milk during handling and storage.
- 9 a Discuss the physical and chemical agents used for control of microorganisms.  
OR  
b Explain the types of fermentation with examples.

Cont...

- 10 a Enumerate the importance of food quality control.  
OR  
b Show the organizational structure of any one agency or organization related to quality assurance.

**SECTION -C (30 Marks)**

Answer ALL questions

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

- 11 a Appraise the degradation of proteins caused by microorganisms.  
OR  
b Sketch the structure of virus and yeast.
- 12 a Report on the intrinsic factors affecting the growth of microorganisms.  
OR  
b Evaluate the use of irradiation technique on control of microbes in foods.
- 13 a How will you assess the microbiological quality of water?  
OR  
b Create a table for the spoilage of perishable foods.
- 14 a Explain in detail anyone of the food borne disease.  
OR  
b Differentiate prebiotics, probiotics and synbiotics.
- 15 a Evaluate the need for HACCP in food industries.  
OR  
b Discuss about the documents required for reporting the quality of foods.

Z-Z-Z

END