

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
MSc DEGREE EXAMINATION MAY 2022  
(Second Semester)

Branch – CLINICAL NUTRITION AND DIETETICS

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. Viruses can range in the size between \_\_\_\_\_.  
a) 2 to 75nm  
b) 10-20nm  
c) 20 to 750nm  
d) 20-750mm
2. Number of generations of bacteria per hour of its growth is termed as \_\_\_\_\_.  
a) Growth rate  
b) Generation rate  
c) Exponential rate  
d) Bacterial rate
3. *Trichothecium roseum* generally causes \_\_\_\_\_.  
a) Green rot  
b) Pink mould rot  
c) Black mould rot  
d) Black rot
4. Ochratoxin B is dechloro derivative of \_\_\_\_\_.  
a) aflatoxin  
b) ochratoxin A  
c) botulin  
d) mycotoxin
5. Which of these is not considered as a biological contaminant?  
a) Mushroom toxins  
b) Glass surface  
c) *Salmonella*  
d) Sea food toxins

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. (a) Relate and compare yeast and mold.  
(OR)  
(b) Why viruses are called as living chemicals?
7. (a) Biological structure play an important role in preserving the food products – Justify the statement with suitable example.  
(OR)  
(b) Point out the application of high temperature in controlling/preventing the growth of microorganisms.
8. (a) Identify any three spoilage caused by aerobic microorganisms in milk and milk products along with their name.  
(OR)  
(b) Why coliforms are considered as indicator microorganism in water?

Cont...

9. (a) State the symptoms and preventive measure for botulism.  
(OR)  
(b) Recall the various chemical methods used to detect the food borne pathogens.
10. (a) List out any three fermented foods available in the commercial market and also mention the microorganisms used to produce that.  
(OR)  
(b) What is CCP and mention its importance in food microbiology.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. (a) Draw the structure of bacteria and explore the various functions of the bacterial internal parts.  
(OR)  
(b) Outline the various biochemical changes caused by microorganisms with suitable example.
12. (a) Summarize and explain the internal factors affecting/influencing the growth of microorganisms in food products with suitable example  
(OR)  
(b) Draw the growth curve for batch and continuous bacterial culture and also explain the various phases on it.
13. (a) Describe the various spoilage caused by microorganisms in vegetables.  
(OR)  
(b) Identify and examine the various spoilage caused by anaerobic microorganisms in the canned foods.
14. (a) Outline and explain the various food borne illness caused by bacteria.  
(OR)  
(b) Derive the steps involved in the PCR while detecting the microorganisms.
15. (a) Point out the beneficial microorganisms used in food processing industry and also comment on its merits and demerits.  
(OR)  
(b) Microbiological criteria and standards for foods are very essential – Justify the statement with suitable example.

Z-Z-Z

END