

Write the following information in the first page of Answer Script before starting answer

ODD SEMESTER EXAMINATION: 2020-21

Exam ID Number _____

Course _____ Semester _____

Paper Code _____ Paper Title _____

Type of Exam: _____ (Regular/Back/Improvement)

Important Instruction for students:

1. Student should write objective and descriptive answer on plain white paper.
2. Give page number in each page starting from 1st page.
3. After completion of examination, Scan all pages, convert into a single PDF, rename the file with Class Roll No. **(2019MBA15)** and upload to the Google classroom as attachment.
4. Exam timing from 10am – 1pm (for morning shift).
5. Question Paper will be uploaded before 10 mins from the schedule time.
6. Additional 20 mins time will be given for scanning and uploading the single PDF file.
7. Student will be marked as ABSENT if failed to upload the PDF answer script due to any reason.

10. Filament, hook and basal body are the part of:
- Flagella
 - Pilli
 - Fimbriae
 - None of above
11. Time in minutes at any defined temperature to destroy microbes is called:
- Z VALUE
 - F VALUE
 - D VALUE
 - All the above
12. If the D value is 4 and M value is 2 then what will be the F-Value?
- 8
 - 2
 - 6
 - 0.5
13. Oil overlay method is the preservation technology of:
- Microbes
 - DNA
 - SOIL
 - All the above
14. In Cryo preservation which temperature is maintained?
- 250 degree celsius
 - 50 degree celsius
 - 100 degree celsius
 - 150 degree celsius
15. DMSO is used in cryopreservation as:
- Cryoprotective agent
 - Antibiotic
 - Antimicrobial
 - Antimalarial
16. In freeze drying sample is frozen at:
- 60 to -78 degree celsius
 - 10 to -15 degree celsius
 - 100 to 200 degree celsius
 - 100 to -200 degree celsius
17. In pasteurization, _____ temp. is used.
- 63 degree celsius for 30 min
 - 80 degree celsius for 40 min
 - 100 degree celsius for 1 hr
 - 100 degree celsius for 2 hr
18. For sterility testing of clear fluid product, what culture media is used?
- FTM
 - ATM
 - SCDM
 - All the above
19. Which time and temp. Relationship is correct for hot air oven?
- 170 degree celsius for 60 min
 - 200 degree celsius for 60 min
 - 60 degree celsius for 200 min
 - 140 degree celsius for 300 min
20. Safranin is used in Gram Staining as:
- Mordant
 - Primary stain
 - Counter stain
 - Decolourising agent

-- --- --

(PART-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 35

[Answer any seven (7) questions]

- | | |
|---|---|
| 1. Explain the structure of a bacterial cell. | 5 |
| 2. Write the growth curve of bacteria. | 5 |
| 3. Write a note on importance of fungi. | 5 |
| 4. Write the principle of Simple Staining. Discuss gram staining process. | 5 |
| 5. Discuss the nutritional requirements for bacterial growth. | 5 |
| 6. Classify and discuss the mode of action of disinfectants. | 5 |
| 7. How can you classify the clean area? Write the sources of contamination in aseptic area. | 5 |
| 8. Draw a structure of a virus. Describe the various parts of a virus. | 5 |
| 9. Describe the factors, those are affecting the microbial spoilage of pharmaceutical products. | 5 |

(PART-C : Long type questions)

[Answer any two (2) questions]

- | | |
|---|----|
| 1. What is sterility indicator? Briefly discuss about the chemical, physical and biological indicators. | 10 |
| 2. Define and classify sterilization process. Write a note on moist heat sterilization process. | 10 |
| 3. Discuss the various cultivation processes of Anaerobes. | 10 |

-- --- --