

**C.U.SHAH UNIVERSITY**  
**Winter Examination-2021**

**Subject Name : Pharmaceutical Microbiology - Theory**

**Subject Code : BP303T**

**Branch: B.Pharm**

**Semester: 3**

**Date: 15/12/2021**

**Time: 02:30 To 05:30**

**Marks: 75**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
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**Q-1                  Attempt the following questions:                  (20)**

- a) What is flagella? What are different types of flagella?
- b) Comment: Oxygen is lethal or beneficial for microorganisms.
- c) Suggest suitable sterilization method for Ethyl oleate and eye drops.
- d) What do you mean by Z value?
- e) What is the role of agar and resazurin sodium in FTM?
- f) What are the examples of acid fast bacteria?
- g) What are the classes of aseptic area as per pharmaceutical regulatory?
- h) What is the use of dark field microscopy?
- i) Give examples of Physical and chemical indicators of sterilization.
- j) Enlist the application of cell culture in Pharmaceuticals.

**Attempt the following questions:**

**Q-2                  Attempt any two of following :                  (20)**

- |          |   |           |
|----------|---|-----------|
| <b>A</b> | Write a note on different methods of cultivation of microorganisms. | <b>10</b> |
| <b>B</b> | Write a note on Moist heat sterilization methods.                   | <b>10</b> |
| <b>C</b> | Discuss principle and methods of microbiological assay.             | <b>10</b> |

**Q-3                  Attempt any Seven of following :                  (35)**

- |          |  |          |
|----------|--|----------|
| <b>A</b> | Differentiate Eucaryotes and Prokaryotes.  | <b>5</b> |
| <b>B</b> | Discuss the identification of bacteria by Gram's Staining Technique.                     | <b>5</b> |
| <b>C</b> | Write a note on different sources of contamination in aseptic area.                      | <b>5</b> |
| <b>D</b> | Discuss the factors affecting microbiological spoilage of Pharmaceutical products.       | <b>5</b> |
| <b>E</b> | Write a note on result interpretation of sterility testing by direct inoculation method. | <b>5</b> |
| <b>F</b> | Define Disinfectant. Classify disinfectants in details.                                  | <b>5</b> |
| <b>G</b> | Write a note on evaluation of disinfectant activity of compound.                         | <b>5</b> |
| <b>H</b> | Write a note on SEM.   | <b>5</b> |
| <b>I</b> | Write a note on Culture media.   | <b>5</b> |

