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**NY—119—2023**

**FACULTY OF SCIENCE**

**M.Sc. (Second Year) (Fourth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**MICROBIOLOGY**

**Paper XVII (MB-402)**

**(Medical and Pharmaceutical Microbiology)**

**(Friday, 8-12-2023)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—Three Hours*

*Maximum Marks—75*

*N.B. :— (i) Attempt all questions.*

*(ii) All questions carry equal marks.*

*(iii) Illustrate your answer with proper figures and structure wherever necessary.*

1. Define broad spectrum antibiotics. Explain in detail Tetracyclines. 15

*Or*

Write an essay on Chloramphenicol.

2. Describe in detail microbial contamination and spoilage of pharmaceutical products. Write a short note on its prevention. 15

*Or*

Write a note on vaccine clinical trials.

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3. What are liposomes ? Discuss in detail immobilization procedure for pharmaceutical application. 15

Or

Explain in brief :

- (a) IP
  - (b) BP
  - (c) USP.
4. Explain in detail role of quality assurance and quality management in pharmaceuticals. 15

Or

Write in detail safety measures taken in microbiology laboratory.

5. Write short notes on (any *three*) : 15

- (i) Antiseptics
- (ii) Chemical disinfectants
- (iii) Sterile injectables
- (iv) Synthetic drug carriers
- (v) Z-value.

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