

**T.Y.B.SC. SEM – VI (2014 COURSE) : WINTER- 2017**  
**SUBJECT: MICROBIOLOGY: CHEMOTHERAPY AND**  
**BIOMEDICAL INSTRUMENTATION (MB-61)**

Day : Monday  
Date : 23/10/2017

Time: 12.00 NOON TO 02.00 PM  
Max. Marks: 40

**W-2017-0671**

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**N. B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labelled diagram **WHEREVER** necessary.
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- Q. 1** Attempt **ANY TWO** of the following: **(10)**
- a) Enlist 'Penicillin binding proteins' (PBPs) and give their role in the chemotherapy of 'Penicillin'.
  - b) Discuss the principle and use of 'Sphygmomanometer'.
  - c) Giving suitable examples, explain the reasons of variable and unpredictable drug response.
- Q. 2** Attempt **ANY TWO** of the following: **(10)**
- a) Discuss 'Secondary tuberculosis'.
  - b) Explain the mechanism of action of 'Tetracycline'.
  - c) Comment on the morphological and cultural characteristic of *Treponema pallidum*.
- Q. 3** Write short notes on **ANY TWO** of the following: **(10)**
- a) Antigenic properties of *Streptococcus spp.*
  - b) Factors affecting chemotherapy
  - c) Nystatin
- Q. 4** Attempt **ANY FIVE** of the following: **(10)**
- a) Name the saponified wax present in cell wall of *Mycobacterium tuberculosis* and mention its significance.
  - b) What is 'T wave' and 'QRS wave' of ECG?
  - c) Enlist upper respiratory tract infections caused by *Staphylococcus spp.*
  - d) Mention the toxins of *E. coli*.
  - e) Name any two tests used for laboratory diagnosis of 'Syphilis'.
  - f) What is 'Acyclo-GTP'? Give its significance.
  - g) Which enzyme is a target site for 'Actinomycin – D'? Give any one medical use of 'Actinomycin – D'.

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