

T.Y.B.SC. SEM – VI (2014 COURSE) : SUMMER - 2018

**SUBJECT: MICROBIOLOGY: CHEMOTHERAPY AND
BIOMEDICAL INSTRUMENTATION (MB-61)**

Day : **Tuesday**
Date : **10/04/2018**

S-2018-0763

Time: **12.00 NOON TO 02.00 PM**

Max. Marks: 40

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) With the help of Strominger's theory, explain the mechanism of action of 'Penicillin'.
- b) Discuss the principle and use of 'EEG Transducer'.
- c) Explain the causes variable and unpredictable drug response.

Q. 2 Attempt **ANY TWO** of the following: **(10)**

- a) Discuss 'Post primary tuberculosis'.
- b) Explain the mechanism of action of 'Actinomycin – D'.
- c) What is cardiolipin antigen? Giving suitable example, explain its diagnostic significance.

Q. 3 Write short notes on **ANY TWO** of the following: **(10)**

- a) Haemolysins of *Streptococcus spp*
- b) Classification of chemotherapeutic agents
- c) Zidovudine

Q. 4 Attempt **ANY FIVE** of the following: **(10)**

- a) Give the composition of 'LJ medium'. Which organism is cultivated using 'LJ medium'?
- b) What is 'pen amplifier' and 'stylus'? In which medical device it is used?
- c) Which drug acts as purine analogue for fungi? Mention any two fungi sensitive to the same drug.
- d) Mention any two sulphated polysaccharides used for prevention of HIV.
- e) What is single nucleotide polymorphism?
- f) Enlist enterotoxins produced by *Staphylococcus spp*.
- g) Give two example of pathogenic *E. coli* which do not require toxin production for development of diarrhea.

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