

**T.Y.B.Sc. SEM.-VI (CBCS-2016 COURSE) : SUMMER 2019**  
**SUBJECT : MICROBIOLOGY : CHEMOTHERAPY & BIOMEDICAL**  
**INSTRUMENTATION**

Day : Monday  
Date : 8-4-2019

S-2019-0895

Time : 3:00 P.M. to 6:00 P.M.  
Max. marks : 60

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.

**Q.1** Attempt **ANY TWO** of the following . (12)

- a) Describe gene therapy vectors for 'Severe Combined Immunodeficiency' and mention the limitations of gene therapy.
- b) Explain characteristics of chemotherapeutic agents.
- c) With the help of labeled diagram, describe the principle and use of 'Conductivity type of blood cell counter'.

**Q.2** Attempt **ANY TWO** of the following . (12)

- a) Enlist the symptoms of 'Alzheimer's Disease'. How those can be controlled using gene therapy?
- b) Justify the statement that, 'drug response in human being is variable and unpredictable.'
- c) Explain the mode of action of 'Tetracyclin'.

**Q.3** Attempt **ANY TWO** of the following . (12)

- a) Describe Strominger's theory for action of Penicillin.
- b) Explain the mode of action of Rifampicin.
- c) Give general classification of chemotherapeutic agents.

**Q.4** Write short notes on **ANY THREE** of the following . (12)

- a) Sulphated polysaccharides
- b) Acyclovir
- c) Griseofulvin
- d) Electrocardiograph

**Q.5** Attempt **ANY FOUR** of the following . (12)

- a) Describe the principle and use of 'Sphygmomanometer'.
- b) Explain the mode of action of 'Nystatin'.
- c) Describe the mechanism of development of drug resistance to 'Tetracyclin'.
- d) Give the mode of action of 'Actinomycin-D'.
- e) Mention different reasons for development of drug resistance to Penicillin.
- f) Comment on the reading of 'EEG'.

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