

BACHELOR OF SCIENCE (CBCS-2018 COURSE)
T. Y. B. Sc. Sem-VI :SUMMER- 2022
SUBJECT : MICROBIOLOGY : CHEMOTHERAPY & BIOMEDICAL
INSTRUMENTATION

Day : Saturday
Date : 2/7/2022

S-18486-2022

Time : 11:00 AM-02:00 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat labelled diagrams **WHEREVER** necessary

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- Q.1** Attempt any **ONE** of the following: (12)
- a) Give the mechanism for development and progression of amyloid plaques in Alzheimer disease and explain the gene therapy of the disease.
 - b) Explain 'Adenosine Deaminase Deficiency' and comment on gene therapy of severe combined immunodeficiency.
 - c) Give general principles of chemotherapy.
- Q.2** Attempt any **TWO** of the following: (12)
- a) Explain toxins of *Staphylococcus aureus*.
 - b) Describe virulence factors of *Streptococcus*.
 - c) Give the symptoms of 'Primary Tuberculosis' and 'Secondary Tuberculosis'.
- Q.3** Attempt any **TWO** of the following: (12)
- a) Comment on Strominger's theory for action of Penicillin.
 - b) Which drug is a naphthalene derivative and shows four cyclohexane rings? Explain the mechanism of action of the drug.
 - c) Give the action of Acyclovir.
- Q.4** Write short notes on any **THREE** of the following: (12)
- a) Conductivity type of 'Blood Cell Counter'
 - b) ECG Transducer
 - c) Blood Pressure Counter
 - d) EEG Transducer
- Q.5** Attempt any **FOUR** of the following: (12)
- a) What is variable and unpredictable drug response?
 - b) Explain Wood field's hypothesis of sulfonamide action.
 - c) Giving suitable examples give the significance of sulfated polysaccharides.
 - d) Explain the drug resistance for Nystatin.
 - e) Discuss the role of 'Griseofulvin'.
 - f) Justify the statement that 'Beta Unit of RNA polymerase enzyme is a site for action of Rifampicin'.

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