Registration No: | | | | | | | | | | |

Total Number of Pages : 01 **M.Pharm**
MPC104T

1st Semester Regular Examination 2019-20
CHEMISTRY OF NATURAL PRODUCTS
BRANCH : Chemistry
Max Marks: 75
Time : 3 Hours
Q.CODE : HR783

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any TWO from Part-C.
The figures in the right hand margin indicate marks.

Part-A

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) Write the biological activity and name the various methods of structural determination of Morphine
b) Determine the chemistry of Sterols and give the structures of Testosterone and Progesterone
c) What is Isoprene rule and write its importance.
d) Mention the Physiological significance of Vit B 12
e) State about Hybridoma technology
f) What are the active constituents of drug Gymnema sylvestre used in diabetic therapy.
g) Mention the crud drug used for liver dysfunction and its active constituents.
h) Write the source, uses and its lead derivatives of Macrolide antibiotics.
i) What is Ziesel's method and write its importance in determining functional groups.
j) Determine the chemistry and importance of folic acid.

Part-B

Q2 **Only Focused-Short Answer Type Questions- (Answer Any SEVEN out of NINE)** **(7 x 5)**

a) Explain Oligo nucleotide therapy
b) Give the general methods for determing Hydroxyl group.
c) Illustrate the analytical methods for Evaluation of Ephedrine.
d) Write a note on applications of ^{1}HNMR & ^{13} CNMR in structural characterization of Vit-D
e) Describe the recent advances in gene therapy in detail.
f) Design the structural elucidation of morphine.
g) Mention the general methods of structural determination of flavonoids and isolation, purification of flavonoids.
h) Illustrate the structural characterization of Quercetin using mass spectroscopy.
i) Explain in detail on new pharmaceuticals derived from Biotechnology method.

Part-C

Only Long Answer Type Questions (Answer Any TWO out of FOUR)

Q3 Explain the applications of IR, NMR, Mass Spectroscopy in structural characterization of Camphor & Retinol **(10)**

Q4 **a)** Describe the chemistry of β-Lactam antibiotics. **(5)**
b) Give the Structural elucidation of Reserpine. **(5)**

Q5 Explain Hofmann exhaustive methylation and van braun method of ring opening. **(10)**

Q6 Describe briefly on leads of Taxols used as anti cancer drug. **(10)**