

(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE **22PCY310**

DURING THE ACADEMIC YEAR 2022 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS): POLLACHI

END-OF-SEMESTER EXAMINATIONS: NOVEMBER- 2023

M.Sc.-CHEMISTRY

MAXIMUM MARKS: 50 MARKS

III SEMESTER

TIME: 3 HOURS

PART-III

ORGANIC CHEMISTRY-III

NATURAL PRODUCTS AND ORGANIC REAGENTS

SECTION- A

(10x1=10MARKS)

ANSWER THE FOLLOWING QUESTIONS (K1)

- How many carbon units are present in isoprene
a) C₁ b) C₂
c) C₄ d) C₅
- Cholesterol contains
a) 1 double bond and 1 OH group b) 2 double bond and 1 OH group
c) 2 double bond and 2 OH group d) 1 double bond and 2 OH group
- BOC is used to protect
a) Carboxylic acid b) Hydroxyl group
c) Amino group d) Carbonyl group
- Rearrangement reactions includes
a) Modification in carbon skeleton b) Modification in functional group
c) Movement of substituent d) All the above
- The metal present in Wilkinson's catalyst is
a) Rh b) Cu
c) Mg d) Cr

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

- What is isoprene rule?
- Define Steroids
- Write a note on retrosynthetic analysis
- Describe molecular rearrangements
- Define: Heterocyclic compounds

(COND..2)

ETHICAL PAPER

SECTION B

(5x3=15MARKS)

ANSWER EITHER (a) or (b) IN EACH OF THE FOLLOWING QUESTIONS(K3)

11. a) Explain the structural elucidation of zingiberene
(OR)
b) Illustrate gem-dialkyl rule
12. a) Write a note on structural elucidation of ergosterol
(OR)
b) Give an account of Vitamin-D
13. a) Illustrate about of synthon
(OR)
b) Write a note on synthetic equivalent
14. a) Write a note on Wagner Meerwin rearrangements
(OR)
b) Give an account of Wolf rearrangement
15. a) Write a note on NBS
(OR)
b) What are lithium diisopropyl amide?

SECTION- C

(5x5=25MARKS)

ANSWER EITHER (a) or (b) IN EACH OF THE FOLLOWING QUESTIONS (K4/K5)

16. a) Describe isolation and classification of terpenoids
(OR)
b) Explain the biosynthesis of mono and di terpenoids
17. a) Explain Structural elucidation of cholesterol
(OR)
b) Give an account on structure of estrogen
18. a) Write a note on Grignard reactions and Robinson annulations
(OR)
b) Illustrate on protection deprotection of functional groups
19. a) Explain Fries rearrangement
(OR)
b) Write a note on Curtius rearrangement
20. a) Give an account of structure and synthesis of flavones
(OR)
b) Explain the on structural elucidation of caffeine
