



MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

MANIPAL

(A constituent unit of MAHE, Manipal)

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BPharm Semester II – End semester supplementary examination, December-2021
PCH-BP202T. PHARMACEUTICAL ORGANIC CHEMISTRY-I

Date: 01.11.2021

Duration: 20 minutes

Max. Marks: 20

Time 2 pm-2.20 P.M.

Multiple choice questions

20 Marks

Answer all questions

write the appropriate choice in the box provided

- Which of the following halide can give best S_N2 reaction?
a) Primary alkyl halide c) Secondary alkyl halide
b) Tertiary alkyl halide d) All can give S_N2 reaction at same rate
- The alkyl halides are considered to be very reactive compounds towards nucleophile because
a) they have an electrophilic carbon & a bad leaving group
b) They have a nucleophilic carbon & a good leaving group
c) They have an electrophilic carbon
d) They have an electrophilic carbon & a good leaving group
- Vinegar contain carboxylic acid known as
a) Citric acid c) Nitric acid
b) Methanoic acid d) Ethanoic acid
- In n-Propyl halide, carbon attached to the halogen atom is further attached to how many carbon atoms?
a) 1 c) 3
b) 2 d) 4
- What makes a lemon sour?
a) Tartaric acid c) Citric acid
b) Oxalic acid d) Hydrochloric acid
- Least acidic compound is
a) FCH_2CO_2H c) $BrCH_2CO_2H$
b) $ClCH_2CO_2H$ d) ICH_2CO_2H
- The irritation caused by red ants bite is due to



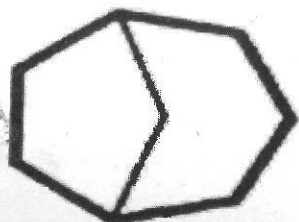
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16. Following test is only answered by aromatic aldehydes
- a) Jones oxidation c) 2,4 dinitrophenyl hydrazine test
- b) Tollen's reagent test d) Molisch's test
17. Penta 1,3 diene is an example for
- a) Cumulated diene c) Conjugated diene
- b) Isolated diene d) Fatty acid
18. Shape and type of hybridization found in methylum ion (CH_3^+) are
- a) Trigonal pyramidal and SP^2 c) Trigonal pyramidal and SP^3
- b) Trigonal planar and SP^2 d) Trigonal planar and SP^3
19. The Diel's Alder reaction is a
- a) Syn addition c) periplanar addition
- b) Coplanar addition d) Anti addition
20. IUPAC Name for the following compound is



- a) Bicyclo [3,1,2] octane c) Bicyclo [3,1,2] heptane
- b) Bicyclo [3,2,1] octane d) Bicyclo [1,3,2] nonane



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BPharm Semester II – End semester supplementary examination, December-2021
PCH-BP202T. PHARMACEUTICAL ORGANIC CHEMISTRY-I

Date: 01.11.2021 Duration: 3h Max. Marks: 75

Time-2.20 P.M to 5.00 P.M.

INSTRUCTIONS: ANSWER ALL THE QUESTIONS

- I) MCQ (20x1=20 marks)
- II) Long Essay (2x10 = 20 marks)
- 1.
- A. What is Ozonolysis? Write its mechanism. How will you predict the products of Ozonolysis of an alkene? [1+3+1]
- B. Explain the mechanism of free radical halogenation of alkanes. [3]
- C. Write the mechanism of E₂ reactions with suitable illustrations. [2]
2. What are nucleophilic substitution reactions? Give its types and explain the factors affecting on it. [10]
- III) Short answers (7x5 = 35 marks)
3. Write structures for the following IUPAC names
- a) 4-Ethyl-3-Methyl heptane
- b) 4-Isopropyl heptane
- c) Hept-4-en-1-ol
- d) 4-Hydroxy Octanoic acid
- e) Ethyl-4-Mercapto butanoate 1x5=5 M
4. Classify structural isomerism with one example each class. 5M
5. Explain the mechanism of Perkins condensation with mechanism. 5M

