B. Pharm. Second Semester (New)

35340 : BP 202 T - Pharmaceutical Organic Chemistry – I

P. Pages : 2 | AU - 0708

Time : Three Hours | Max. Marks : 75

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Notes : 1. Answer all question.
2. Illustrate your answer necessary with the help of neat sketches.
3. Discuss the reaction, mechanism wherever necessary.

1. a) Multiple Choice Questions. 10

1) The reaction of propane with bromine is called -----
   a) addition b) combustion
   c) halogenation d) elimination

2) The product of the reaction ($CH_3 - CH = CH - CH_2 - CH_2 - CH_3 + Br_2$) is
   a) $CH_3 - CHBr - CHBr - CH_2 - CH_2 - CH_3$
   b) $CH_3 - CH - CHBr_2 - CH_2 - CH_2 - CH_3$
   c) $CH_2 = CHBr - CHBr - CH_2 - CH_2 - CH_3$
   d) $CH_3 - CHBr = CH - CH_2 - CH_2 - CH_3$

3) The order of reactivity of alkane with halogen is ------
   a) $I_2 > Br_2 > Cl_2 > F_2$ b) $F_2 > Cl_2 > Br_2 > I_2$
   c) $F_2 > I_2 > Cl_2 > Br_2$ d) $Cl_2 > Br_2 > F_2 > I_2$

4) An alkene with five carbon atom contains ----- hydrogen atom.
   a) 10 b) 11
   c) 12 d) None of these

5) The combustion of alkane will produce ------ and water.
   a) SO_2 b) CO_2
   c) SO_3 d) NO_2

6) Which of following is branched chain hydrocarbon.
   a) ethene b) 2 – butene
   c) 3 – methyl – 2 – butene d) 2 – pentene

7) IUPAC name of $CH_3 - CH_2 - CH_2 - C(CH_3)_2 - CH_2 - CH_3$ is -----
   a) 3, 3 – dimethyl hexane b) 2 – ethyl – 2 methyl pentane
   c) Octane d) None of the above

8) The functional group contained in ethanol is -------
   a) – COOH b) – OH
   c) – O – d) – C = O

9) Alkyl halide under goes ----- reaction.
   a) Nucleophilic b) Electrophilic
   c) both (a) & (b) d) None of above

10) HCHO is ------

a) Acetaldehyde b) methanol
c) Formaldehyde d) acetone

b) Answer the followings 10

1) Define diastereomers with example.

2) Define hybridization.

3) Draw the structure of 2 – chlorobutane.

4) What is mean by conjugated dienes?

5) Give uses of acetone.

2. Long Answer Questions. Answer any two. 20

1) Give various reactions of alkanes. Explain in detail about chlorination of methane.

2) Discuss in detail about SN^1 reaction with stereochemistry.

3) Explain in detail about E^1 & $E2$ reactions.

3. Short Answer Questions. Answer any seven. 35

1) Give reaction and mechanism of SN^2 reaction.

2) Discuss about SP^3 hybridization.

3) Explain about Markonikov and anti-markonikov rule.

4) Discuss about structural isomerism.

5) Discuss reactions of conjugated dienes.

6) Discuss aldol condensation.

7) Give method of preparation and reaction of alcohol.

8) Discuss basicity of amines.

9) Explain about diastereomers with examples.

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