B. Pharm. 2011 & Old.

PURUS - I (2011 COURSE): WINTER - 2016
SUBJECT: PHARMACEUTICAL CHEMISTRY – II (ORGANIC)

Day: Saturday
Date: 12/11/2016

Time: 10.00 AM TO 01.00 PM
Max. Marks: 80

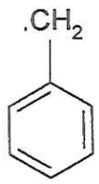
N.B.;

1) Q. No. 1 and Q. No. **5** are **COMPULSORY**. Out of remaining solve **ANY TWO** questions.
2) Answers to the sections should be written in the **SEPARATE** answer book.
3) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Answer **ANY FIVE** of the following: **(10)**

a) Write resonance of the following radical compound.

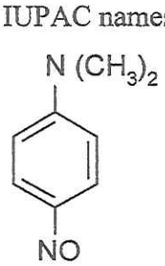


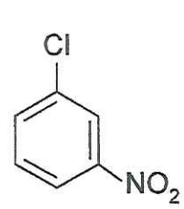
b) Explain why in S_N^1 reaction 50% retention of configuration and 50% inversion of configuration is observed.
c) Why 1, 2, 3 tri – t – butyl benzene is very difficult to synthesize?
d) What is Ingold scale?
e) What is B – strain?
f) Explain why Gauche confirmation is the most stable conformation?
g) Aniline is less basic than N, N dimethyl toludine. Explain.

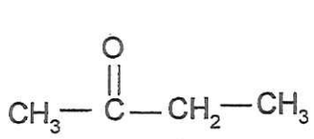
Q.2 a) Differentiate between S_N^1 and S_N^2 reactions. **(10)**
b) Write a note on polarity of bonds. **(05)**

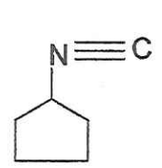
Q.3 a) Define Resonance. Write resonating structures of carbon dioxide. **(10)**

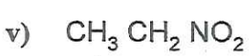
b) Give IUPAC names of following structures. **(05)**

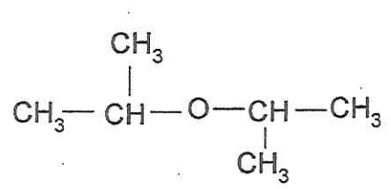
i) 

ii) 

iii) 

iv) 

v) 

vi) 

P.T.O.

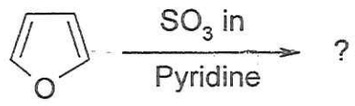
Q.4 Write short notes on **ANY THREE** of the following: **(15)**

a) S_Ni reaction
b) Hyperconjugation
c) Collision theory
d) Inductive effect

SECTION - II

Q.5 Answer **ANY FIVE** of the following: **(10)**

a) Predict the product.



b) Give different reagents used for nitration reagents.

c) What product is obtained when aniline is treated with bromine in water?

d) Differentiate following into electrophiles and necleophiles.

R^+, SO_3H, $\overset{\ominus}{O}H$, H_2O

e) Give stability order of alkyl free radical in increasing order.

$^{\bullet}CH_2CH_3$, $^{\bullet}CH_3$, $^{\bullet}CH(CH_3)_2$, $^{\bullet}(CH_3)_3$

f) Define Metamerism.

g) Give two examples of compounds which do not exhibit Geometrical isomerism.

Q.6 What are reaction intermediates? Explain nitrenes, carbanions, σ - complex and π - complex in detail. **(15)**

Q.7 a) Give an account on Optical isomerism with suitable example. **(08)**

b) What are Friedel Craft reactions? **(07)**

Q.8 Write short notes on of the following: **(15)**

a) Geometric isomerism
b) Halogenation reactions
c) Benzynes
d) Structural isomerism

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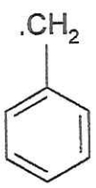

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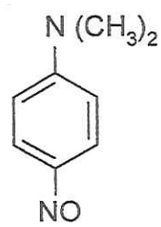
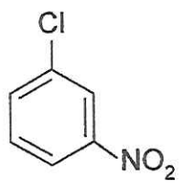
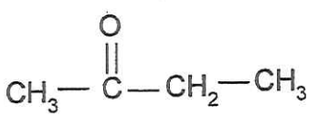
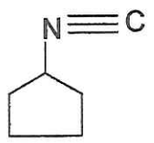
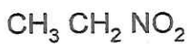
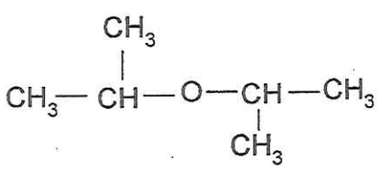
i) 

ii) 

iii) 

iv) 

v) 

vi) 

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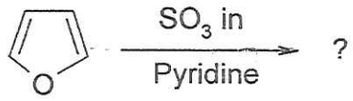

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