S.NO. 428   BATCH: 87-2016   Reg. No. [   ]

END OF SEMESTER EXAMINATIONS, APRIL/MAY - 2017
GENERAL CHEMISTRY - II
SUBJECT CODE: 10UACH02

MAJOR: B.Sc. (Chemistry)   SEMESTER   : II
TIME   : 3 HOURS   MAX. MARKS: 75

SECTION – A (10 X 1 = 10)

Answer ALL the Questions:

1. Name the rare gases.
2. What is a pseudo halogen?
3. Give IUPAC nomenclature for the compound $HC \equiv C - C - C - CH_3$.
$$\overset{|}{C}H_3 \overset{|}{C}H_3$$
4. What is Lindlar catalyst?
5. What are nucleophiles?
6. Give any two uses of naphthalene.
7. Define entropy.
8. State Trouton's rule.
9. Define DOS.
10. What are operators? Give example.

SECTION – B (5 X 4 = 20)

Answer ALL the Questions:

11. a) What are interhalogens? Draw the structure of ClF_3 and IF_7.
   (OR)
   b) Discuss the structure of hydrogen peroxide.
12. a) Explain Friedal – Crafts alkylation in the preparation of alkyl benzene.
   (OR)
   b) What is diazocoupling?
13. a) Explain SN^i mechanism.
   (OR)
   b) Give the differences between elimination and substitution reactions.
14. a) Show that entropy is a function of temperature and volume.
   (OR)
   b) Explain Clausius inequality.
15. a) What is a flow chart?
   (OR)
   b) Write a program to compute normality for the given solution.

SECTION – C (5 X 9 = 45)

Answer ALL the Questions:

16. a) Give the preparation, properties and uses of ozone.
   (OR)
   b) Write about the peracids of sulphur.
17. a) What are benzenoid and non – benzenoid aromatic compounds?
   (OR)
   b) Explain hydration of alkynes.
18. a) Compare the reactivity of ethyl, methyl, vinyl and benzyl halides towards substitution.
   (OR)
   b) Give any five chemical properties of naphthalene.
19. a) Derive the Maxwell relation.
   (OR)
   b) Derive Gibbs – Helmholtz equation.
20. a) Discuss the fundamentals of computers.
   (OR)
   b) Draw the flow chart and write program for calculating rate constant for a first order reaction.

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