

**SUBJECT – CHEMISTRY**

**I UNIT TEST 2017-18**

**STD.-XI**

**MARKS- 50**

**DATE-11/10/17**

**TIME- 2 hrs.**

**SECTION A**

**Select and write the most appropriate answer from the given alternative for each sub question. (5)**

- In the reaction of  $\text{H}_2\text{S} + \text{NO}_2 \longrightarrow \text{H}_2\text{O} + \text{NO} + \text{S}$ ,  $\text{H}_2\text{S}$  is  
a) Oxidized   b) reduced   c) precipitated   d) none of these
- The maximum number of element in 3<sup>rd</sup> period is  
a) 8   b) 18   c) 32   d) Between 8 and 18
- Which of the following is a heterocyclic compound?  
a) Naphthalene   b) Thiophene   c) Phenol   d) Aniline
- In wurtz reaction.....is used as a solvent.  
a) Dry ether   b) Benzene   c)  $\text{HIO}_3$    d) none of these.
- Baeyer's reagent is  
a) Alkaline bromine solution   b) Acidic  $\text{KMnO}_4$  solution   c) Neutral  $\text{KMnO}_4$  solution  
d) Aqueous bromine solution

**Answer the following questions (6)**

- Mention the period which contain 3d series elements.
- Find the oxidation number of Cu in  $\text{CuSO}_4$
- Write the molecular formula of an alkane containing 21 carbon atoms.
- Write the combustion equation for the methane.
- Write structure of an organic compound containing Keto functional group.
- Compound X has  $1s^2 2s^2 2p^4$  electronic configuration. Name the compound X.

## SECTION B

Answer the following questions

(14)

12. Which would be the IUPAC name and symbol of the element with atomic number 119?
13. Which among the following have +I and –I effect.
14. Represent the staggered conformation of ethane by Newman projection method.
15. Draw the resonance structures in nitroethane.
16. Identify the functional group present in the following compounds
  - a. Acetylene
  - b. Acetone
17. Draw the structures for geometrical isomers of 3,4-Dimethylhex-3-ene.
18. Assign oxidation number to each element present in the following compound

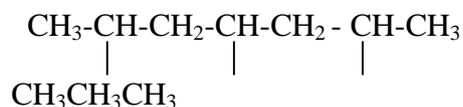


## SECTION C

Answer the following questions

(15)

19. Give IUPAC name of the following compound



Write complete structural formula and bond line formula of 1-Iodo-2,3-dimethylpentane.

20. Write the chemical reaction that take place on heating dry ether solution of a mixture of methyl iodide and ethyl iodide with sodium metal.
21. Arrange the following alkenes in the increasing order of their boiling points.  
2-methylbut-2-ene, But-1-ene, 2, 3-Dimethylbut-2-ene.

OR

Propane on chlorination gives two isomeric alkyl halides. These alkyl halides on dehydrogenation give an alkene. Identify the product.

22. Name the following compounds
  - a. Compound X is used as a bleaching agent to remove stains from clothes.
  - b. Compound Y is used as an oxidising agent to bleach wood pulp into white paper.
  - c. Compound Z is used to bleach dark hair.

23. Predict the block, period and group to which Na (Z=11) element belongs?

### SECTION D

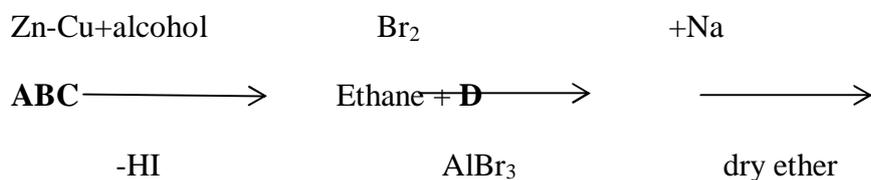
Answer the following questions

(10)

24. Identify which atoms are oxidised and which are reduced in the following redox reaction. Mention oxidant and reductant.



25. Identify A, B, C and D in the following sequence of reaction and rewrite the complete equation.



OR

Write the structure of all possible alkanes and alkenes that would be produced on pyrolysis of n-butane.