GATITU DAY MIXED SEC SCHOOL

CHEMISTRY FORM 3 CAT2

TERM 2 2012 MIDTERM EXAM

1. A gas occupies 4 dm3 at – 23c and 152 mmHg pressure. At what pressure will the volume of the gas be 2 dm3 if the temperature is raised to 27c? (3mks)

2. Explain why gases are easily compressed (2mks)

3. Convert -6c to Kelvin (1mk)

4. A compound of carbon, hydrogen and oxygen contains 54.55% carbon, 9.09 hydrogen and 36.36% oxygen if its relative molecular mass is 88. What is its molecular formular? (C-12, o-16, H-1) (4mks)

5. What is a saturated hydrocarbon? (2mks)

6. What are isomers? (2mks)

7. Butane and bromine react as shown below

CH3 CH2 CH3 + Br2 CH3 CH2 Br + HB.

a) Name the type of reaction taking place in the equation above (2mks)

b) State the condition under which the above reaction takes place (2mks)

8. Explain how you would differentiate between Alkanes and alkenes (2mks)

9. Name the catalyst used in the process of hydrogenation. (1mk)

10. Draw the structure of the following (5mks)

a) 2 –methyl pent-2-ene

b) 3 – methyl but-1-ene

c) Decane

d) 1- bromo -2 chloro hexane.

11. State two uses of Alkanes (2mks)

12. Name the process represented by the following (1mk)

13. Name the following compounds (2mks)

14. Give three uses of hydrogen gas (3mks)

15. Complete the following equation and name the products formed (3mks)

16. A certain volume of oxygen gas diffused from a given apparatus in 125 seconds in the same conditions, the same volume of a gas N, diffused in 100 seconds. Calculate the relative molecular mass of N (0=16) (3mks)

17. What is an isotope? (2mks)