

V.P.M's B. N. Bandodkar College of Science, Thane  
F.Y.J.C First Mid - Terminal Examination September 2018  
Subject: Chemistry

Date: 19.09.2018  
Day: Wednesday

Time: 08.45 am to 09.45 pm  
Marks: 25

Section – A

- The General formula of Alkane is (1)  
a)  $C_nH_{2n+2}$       b)  $C_nH_{2n}$       c)  $C_nH_{2n-2}$       d)  $C_{2n}H_n$
- The maximum number of electrons in a main shell is given by expression (1)  
a)  $2(2l + 1)$       b)  $(2l + 1)$       c)  $2n^2$       d)  $(n - 1)$
- The molecular formula of n – butane is (1)  
a)  $C_4H_6$       b)  $C_4H_9$       c)  $C_4H_8$       d)  $C_4H_{10}$
- The orbital with  $n = 3$  &  $l = 1$  is (1)  
a)  $3s$       b)  $3p$       c)  $3d$       d)  $3f$
- Letter 'm' represent (1)  
a) Principal quantum number      b) Azimuthal quantum number  
c) Magnetic quantum number      d) Spin quantum number
- Write the structure of 2, 2 – dimethyl pentane. (1)
- Deuterium and Tritium are the isotopes of which element? (1)
- Complete the reaction  $CH_3 - CH = CH_2 + H_2 \xrightarrow[\Delta]{Raney Ni}$  (1)

Section – B

- Define Alkanes. (1)
- State Pauli's Exclusion principle. (1)
- Define Wavelength. (1)
- What are hydrocarbons? (1)

Section – C

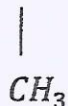
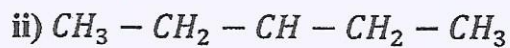
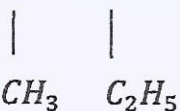
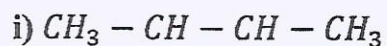
- Distinguish between Isotopes & Isobars. (2)
- How will you convert (2)  
a) Methyl bromide to Ethane      b) Ethane to Nitroethane
- Write the electronic configuration of following elements: (2)  
a) Sodium (11)      b) Argon (18)
- Write a note on Principal quantum number. (2)

OR

- Write a note on Azimuthal quantum number. (2)
- What are isomers? Write all isomers of n – Butane. (2)

**Section - D**

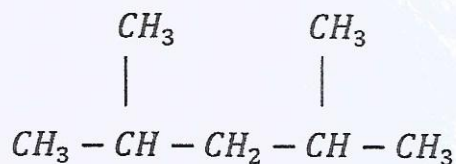
18. a) Write IUPAC names of the following: (3)



b) Write the structure of following alkane : 3 - Ethyl - 2, 3 - dimethyl Hexane

OR

18. How many primary, secondary and tertiary carbon atoms are present in following structure? (3)



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