



P.V.G.'s
Mukhtangan English School & Jr. College,
44, Vidyanagari, Parvati, Pune - 411009.

Terminal Examination (2025-26)
Standard - XI

Subject : Chemistry

Marks : 50

Date : 09.10.2025

Time : 8.30 am to 11.00 am

Instructions -

1. Use of log table is allowed. Use of calculator is not allowed.
2. Figures to the right indicate full marks.
3. Write balanced chemical equations wherever required.
4. The question paper is divided into four sections.
Section A :- Each 1 mark Section B :- Each 2 marks
Section C :- Each 3 marks Section D :- Each 4 marks
5. For each multiple choice type of question it is mandatory to write the correct answer along with its alphabets.

Section A

Q1. Select and write correct answers.

(8)

- 1) But-1-ene and But-2-ene are _____ isomers of each other.
a) position b) chain
c) functional d) metamers.
- 2) The process of breaking of cleavage of a covalent bond is known as _____.
a) bond energy b) bond fusion
c) bond fission d) bond enthalpy
- 3) Which of the following is an electrophile? _____
a) Bf_3 b) ROH
c) NH_3 d) H_2O
- 4) Molecular formula of the compound is _____.

a) C_5H_{12} b) C_5H_{10}
c) C_5H_8 d) C_5H_{14}

- 5) An orbital with quantum numbers
 $n = 4$, $l = 3$, $m = 0$ is _____.
- a) 4f b) 4p
c) 4s d) 4d
- 6) Magnetic quantum number describes _____.
a) size of an orbital b) spin of an electron
c) orientation of an orbital in the given subshell. d) shape of an orbital.
- 7) One mole of oxygen gas weighs _____.
a) 1g b) 8g
c) 32g d) 6.022×10^{23} g
- 8) Following are compounds except _____.
a) water b) mercuric oxide
c) table salt d) arsenic

Q2. Answer the following in short.

(8)

- 1) Write SI unit of density.
- 2) Define homologous series.
- 3) Draw electronic structure of ethane.
- 4) Write the term used for species having same number of electrons.
- 5) What is the ratio of molecules in 1 mole of NH_3 and 1 mole of HNO_3 .
- 6) Write the maximum number of electrons that can be accommodated in f-subshell.
- 7) What is tertiary carbon?
- 8) Define isomers.

Section B

Attempt the following. (Any Six)

(12)

- [illegible]

Section C

Attempt the following questions. (Any Six)

(18)

- Q10.** Write electronic configuration of the following compounds
- a) N ($Z = 7$) b) Mg ($Z=12$) c) Ca ($Z = 20$)
- Q11.** Calculate the number of moles and molecules of acetic acid present in 22g of it.
(Molar mass of acetic acid = 60g)
- Q12.** Draw shapes of all 2p orbitals.
- Q13.** Write characteristic properties of metals, nonmetals and metalloids.(each 2 points)
- Q14.** i) What will be the action of Na metal on following compounds -
- a) CH_3Br b) $\text{C}_2\text{H}_5\text{I}$
- ii) What is Grignard reagent.
- Q15.** Write structural formulae for following compounds.
- a) 2, 2- Dimethylpropane.
- b) 2, 3 - Diethylhexane
- c) Hept-3-ene

Q16. For n-Hexane, write following representation of structural formula.

- a) Dash formula
- b) Bond line formula
- c) Condensed formula

Section D

Attempt any one.

(4)

Q17. Write balanced chemical reactions for chlorination of methane. (4 steps)

Q18. i) Convert 40°C temperature to degree fahrenheit.

ii) Write IUPAC names of following compounds.

