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| **Text  Description automatically generated** | | | |
| **Grade 11** | | | |
| **PERIODIC TEST 1 (2023-24) Answer key** | | | |
| **Subject: CHEMISTRY**  **Grade: XI** | | **Max. Marks:35**  **Time:1Hr15mins** | |
|  | **SECTION A** | | |
| 1 | **c) C6H12** | | 1 |
| 2 | **a) \*CH3-CH2-Cl** | | 1 |
| 3 | **b) AlCl3, :CCl2, NO2+** | | 1 |
| 4 | **d) 5-(1,2-Dimethylpropyl) nonane** | | 1 |
| 5 | **d) A is not correct but R is correct** | | 1 |
|  | **SECTION B** | |  |
| 6 | a) Nucleophilic Substitution  b) Elimination | | 2 |
| 7 | a) Cyclohexatriene  A picture containing text, table, worktable  Description automatically generated  b) 3-Methylbutan-2-one  3-Methylbutan-2-one | C5H10O | ChemSpider | | 2 |
| 8 | a) 2 - Methyl propanoic acid  b) 3-Phenylprop-2-enal | | 2 |
| 9 | |  |  | | --- | --- | | Homolytic fission | Heterolytic fission | | The bonded pair of electrons are distributed evenly between the two atoms. | The bonded pair of electrons goes to a single atom. | | Results in the formation of free radicals. | Results in the formation of ions. | | Both the resultant atoms have identical charges. | Both the resultant atoms have charges opposite in signs. | | | 2 |
| 10. |  | | 2 |
|  | **SECTION C** | |  |
| 11 | 1. 2,2-Dimethylpropane 2. NO2 group shows -I-effect and tends to disperse the -ve charge on the O-atom. In contrast, CH3CH2 shows +I-effect, intensifies the -ve charge, and hence destabilizes it.   Diagram  Description automatically generated with low confidence | | 3 |
| 12 | 3. Cl2 CHCH2OH | | 3 |
| 13 | a) CH3)3C+ >(CH3)2CH+ > CH3-CH2+  b)Any one    c) Ethyl carbocation | | 3 |
| 14 | a) 3,3- Dimethylcyclohexanol  b) Pentan-3-one  c) 4-Oxo-pentanenitrile | | 3 |
| 15 | a)  b) Electrophiles: BF3 and Cl2C**:**  Nucleophile: H2O and Br**-** | | 3 |
|  | . **SECTION D** | |  |
| 16 | a) 2−Methylbutane.  b) C2 and C3  c) CH3- and Cu+  d) Any one- Pyridine/ thiophene/furan  e) | | 5 |