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| **Rabindranath World School** **W-10/3120, DLF Phase III, Gurgaon (HR).**  **HALF YEARLY EXAM (2023-24)**  **SUBJECT NAME**  **Class**  **Set A/B**  **Time: 3 hours Maximum Marks: 70** | | | | | |
|  | | **General Instructions:**   1. There are 35 questions in this question paper with internal choices. 2. Section A, consists of 18 questions (1 to 18). Each question carries 1Mark. 3. Section B, consists of 7 questions (19 to 25). Each question carries 2Marks. 4. Section C, consists of 5 questions (26 to 30). Each question carries 3Marks. 5. Section D, consists of 2 questions (31 to 32). Each question carries 4Marks. 6. Section E, consists of 3 questions (33 to 35). Each question carries 5Marks.   **(According to the subject kindly change the instructions and marks distribution)** | | | |
|  | | | **SECTION A** | **1x18=18** | |
|  | | |  |  | |
| **1** | | Acetic acid reacts with hydrazoic acid at 0° in the presence of conc. H2 SO4 to give:  (a)methyl amine (b) methyl cyanid | | 1 |
| **2** | | Osmotic pressure of a solution is 0.0821 atm at a temperature of 300 K. The Concentration in moles/lit. will be:  (a)0.3 # 10-2 (b) 3  (c)0.33 (d) 0.666 | | 1 |
| **3** | | | When nitrobenzene is reduced in neutral medium, the product is:   * 1. C6H5NHOH (b)C6H5NH2   (c) *p* -aminophenol (d) azobenzene | 1 | |
| **4** | | |  | 1 | |
| **5** | | |  | 1 | |
| **6** | | |  | 1 | |
| **7** | | |  | 1 | |
| **8** | | |  | 1 | |
| **9** | | |  | 1 | |
| **10** | | |  | 1 | |
| **11** | | |  | 1 | |
| **12** | | |  | 1 | |
| **13** | | |  | 1 | |
| **14** | | |  | 1 | |
| **15** | | |  | 1 | |
| **16** | | |  | 1 | |
| **17** | | |  | 1 | |
| **18** | | |  | 1 | |
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|  | | |  |  | |
|  | | | **SECTION B** | **2x7=14** | |
| **19** | | |  | 2 | |
| **20** | | | CH3CHO is more reactive than CH3COCH3 towards reaction with HCN. Why? | 2 | |
| **21** | | | Write the IUPAC name and geometrical isomer of6Pt^NH3h2 Cl2@. | 2 | |
| **22** | | |  | 2 | |
| **23** | | |  | 2 | |
| **24** | | |  | 2 | |
| **25** | | |  | 2 | |
|  | | | **SECTION C** | **3x5=15** | |
| **26** | | | Determine the structure and magnetic behaviour of 6Fe^CNh @4- ion on the basis of valence bond Theory.  6 | 3 | |
| **27** | | |  | 3 | |
| **28** | | |  | 3 | |
| **29** | | |  | 3 | |
| **30** | | |  | 3 | |
|  | | | **SECTION D** | 4X2=8 | |
| **31** | | |  | 4 | |
| **32** | | |  | 4 | |
|  | | | **SECTION E** | **5X3=15** | |
| **33** | | |  |  | |
| **34** | | |  |  | |
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