



# Kerala Public Enterprises (Selection and Recruitment) Board

Opposite KELTRON, Vellayambalam, Thiruvananthapuram

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**Version: D**

**Name of Examination: Junior Operator Trainee**

**Date: 26/07/2026**

**Written examination for:**

Junior Operator Trainee, Kerala Minerals and Metals Limited -TP Unit

## **PROVISIONAL ANSWER KEY**

| Sl No |   | Answer                                              |
|-------|---|-----------------------------------------------------|
| 1     | C | $P_2O_5$ Content                                    |
| 2     | A | Use of supercritical $CO_2$                         |
| 3     | C | Paper industry                                      |
| 4     | D | Gauche                                              |
| 5     | D | Vitamin $B_{12}$                                    |
| 6     | D | McLeod gauge                                        |
| 7     | D | Absolute entropy of perfect crystalline substances  |
| 8     | A | The reactants are fed in stoichiometric proportions |
| 9     | B | Different forms of mechanical energy                |
| 10    | A | None of these                                       |
| 11    | D | $1/2$                                               |
| 12    | C | Silver cyanide                                      |
| 13    | B | 1                                                   |
| 14    | B | 1-Bromo-1-methylcyclohexane                         |
| 15    | A | $CH_2=C(CH_3)_2$                                    |
| 16    | C | All of these                                        |
| 17    | C | Conduction                                          |
| 18    | B | Dynamic viscosity                                   |
| 19    | C | Acetic acid                                         |
| 20    | C | Volatile matter, moisture, ash and fixed carbon     |

|    |   |                                                                       |
|----|---|-----------------------------------------------------------------------|
| 21 | D | 24 kg                                                                 |
| 22 | A | UV-light                                                              |
| 23 | C | SN <sup>1</sup> reaction                                              |
| 24 | B | Gasoline                                                              |
| 25 | C | Fraction of molecules with energies in excess of activation energy    |
| 26 | D | No axial mixing                                                       |
| 27 | B | Xenon                                                                 |
| 28 | B | Same OD, thicker wall for Sch 60                                      |
| 29 | D | Sucrose                                                               |
| 30 | D | All of these                                                          |
| 31 | A | Knocking tendency                                                     |
| 32 | B | None of these                                                         |
| 33 | C | Be <sup>-</sup>                                                       |
| 34 | B | An open system exchanges both energy and matter with its surroundings |
| 35 | A | Dry powder for metals                                                 |
| 36 | A | Bomb calorimeter                                                      |
| 37 | B | Emulsifier                                                            |
| 38 | A | V <sub>2</sub> O <sub>5</sub>                                         |
| 39 | C | 600KJ                                                                 |
| 40 | B | 5°C                                                                   |
| 41 | B | Film diffusion                                                        |
| 42 | C | Induced draft                                                         |
| 43 | B | It increases the rate of forward reaction only                        |
| 44 | A | None of these                                                         |
| 45 | A | geometrical isomerism                                                 |
| 46 | B | Donnan membrane equilibrium                                           |
| 47 | C | Cu(I)                                                                 |
| 48 | B | increase                                                              |
| 49 | D | Dry saturated                                                         |
| 50 | B | 20-30°C                                                               |
| 51 | A | Stern Volmer                                                          |

|    |   |                                                      |
|----|---|------------------------------------------------------|
| 52 | B | 42 g of nitrogen                                     |
| 53 | A | Witting                                              |
| 54 | C | Glucose                                              |
| 55 | C | $^{16}\text{O}$                                      |
| 56 | B | Propane and butane                                   |
| 57 | B | Inertial force to viscous forces                     |
| 58 | D | Nitroacetic acid                                     |
| 59 | D | 0.17                                                 |
| 60 | B | Aerobic composting                                   |
| 61 | B | Uniform temperature                                  |
| 62 | D | square planar                                        |
| 63 | D | Photochemical smog                                   |
| 64 | A | 1981                                                 |
| 65 | A | Reversible adiabatic process                         |
| 66 | A | Micelles                                             |
| 67 | B | 2                                                    |
| 68 | D | Hermann Mauguin symbol                               |
| 69 | C | Buffer solution                                      |
| 70 | D | Entropy                                              |
| 71 | B | Heterogeneous system                                 |
| 72 | A | Pm                                                   |
| 73 | B | Underground burial in concrete containers            |
| 74 | A | Prandtl number                                       |
| 75 | C | Highly polluted with biodegradable organic chemicals |
| 76 | A | $\text{m}^2/\text{S}$                                |
| 77 | B | Rotameter                                            |
| 78 | C | 46% N by weight                                      |
| 79 | B | Sulphuric acid                                       |
| 80 | C | Mannich reaction                                     |
| 81 | A | -1.8 KJ                                              |
| 82 | C | Stabilise wastewater flow and concentration          |

|     |   |                                                         |
|-----|---|---------------------------------------------------------|
| 83  | A | Zn                                                      |
| 84  | C | Covalent bonding                                        |
| 85  | B | 15.625                                                  |
| 86  | B | 3                                                       |
| 87  | A | 300kJ                                                   |
| 88  | D | Colour                                                  |
| 89  | A | Emissivity                                              |
| 90  | D | 0.35                                                    |
| 91  | D | NO <sup>-</sup>                                         |
| 92  | C | No heat interaction between the system and surroundings |
| 93  | B | Yield                                                   |
| 94  | D | Fuel, Oxygen, Heat                                      |
| 95  | A | infinity                                                |
| 96  | B | Use foam                                                |
| 97  | A | $s < p < d < f$                                         |
| 98  | A | O <sub>2</sub>                                          |
| 99  | B | 12.55 x 0.2                                             |
| 100 | B | CO <sub>2</sub> extinguisher                            |

**NB:** - Complaints regarding the Provisional Answer Key should be submitted by candidates to the e-mail (kpesrb@gmail.com) of the Board within a period of 4 days from the date of publication of this Provisional Answer Key (both days included) ie. By 11.59 PM on 30/07/2026. Final Answer Key will be published in the official website of KPESRB.

Shine A Haq  
Secretary