**Karan Arora**  **R.L. Institute M :9416974837**

**Max Time : 1 hr** **Human Eye & Colourful World Max Marks : 32**

**CODE : A**

1. A prism has

a) three triangular surfaces and two rectangular surfaces

b) three rectangular surfaces and two triangular surfaces

c) two triangular and two rectangular surfaces

d) three rectangular surfaces and three triangular surfaces

1. The seven coloured lights of the spectrum can be recombined when two prisms are placed in

|  |  |
| --- | --- |
| a) horizontal position with respect to other | b) adjacent position with respect to other |
| c) inverted position with respect to other | d) vertical position with respect to other |

1. Rainbow is formed due to

|  |  |
| --- | --- |
| a) scattering and refraction | b) total internal reflection and dispersion |
| c) reflection only | d) diffraction and dispersion |

1. Which of the colours of visible light has minimum wavelength ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Violet | b) Red | c) Yellow | d) Green |

1. Which of the colour of visible light has minimum frequency ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Violet | b) Red | c) Yellow | d) Green |

1. For which colour, refractive index of glass is maximum ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Red | b) Violet | c) Green | d) yellow |

1. Which colour suffers least deviation on passing through a prism ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Red | b) Violet | c) Indigo | d) Blue |

1. The angle of deviation of a prism is the angle between

|  |  |
| --- | --- |
| a) incident ray and refracted ray | b) emergent ray and refracted ray |
| c) incident ray and emergent ray produced | d) none of the above |

1. Which colour has maximum speed in glass ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Violet | b) Red | c) Yellow | d) Green |

1. Blue colour of sky is due to

|  |  |  |  |
| --- | --- | --- | --- |
| a) scattering of light | b) reflection of light | c) refraction of light | d) diffraction of light |

1. Twinkling of stars is due to

|  |  |
| --- | --- |
| a) reflection | b) dispersion |
| c) atmospheric refraction | d) none of these |

1. Coloured band of light obtained by dispersion of white light is called ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) mirage | b) spectrum | c) shadow | d) image |

1. Twinkling of stars is visible when the stars are

|  |  |  |  |
| --- | --- | --- | --- |
| a) any where | b) no definite position | c) near the horizon | d) over head |

1. Splitting of white light into seven colours on passing through a glass prism is called ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Reflection | b) Refraction | c) Scattering | d) Dispersion |

1. Stars appear to twinkle because

|  |  |
| --- | --- |
| a) of atmospheric refraction | b) movement of air |
| c) both (a) and (b) | d) none of the above |

1. Rainbow is caused due to

|  |  |
| --- | --- |
| a) reflection of sunlight through air molecules | b) dispersion of sunlight from water drops |
| c) refraction of sunlight from water drops | d) diffraction of sun rays from water drops |

1. Red light is used as universal indicator for danger. It is because

a) red light has least wavelength and scatters most

b) red light has maximum wavelength and scatters most

c) red light has maximum wavelength and scatters least

d) it is matter of convention that there is not scientific principles

1. The sky generally appears blue, because the colour which scatters closed to eye is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Violet | b) Indigo | c) Blue | d) Violet and Indigo |

1. Which of the following phenomena of light is not involved in the formation of a rainbow ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Refraction | b) Dispersion | c) Internal reflection | d) Scattering |

1. Which of the following statements is incorrect regarding the propagation of light of different colours of white light in air ?

a) Blue light moves faster than green light

b) Red light moves fastest

c) Yellow light moves with the mean speed as that of the red and the violet light

d) All of the above

**Metal and Non-Metal**

1. What product formed when aluminium oxide react with NaOH ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) NaAlO3 | b) Na2O | c) NaAlO | d) NaAlO2 |

1. Select the odd one out.

(i) Carbon (ii) Hydrogen (iii) Iodine (iv) Tin (v) Oxygen (vi) Sulphur

|  |  |  |  |
| --- | --- | --- | --- |
| a) (v) | b) (iv) | c) (vi) | d) (ii) |

1. When metal Z is added to dilute HCl solution, there is no evolution of gas. Metal ‘Z’ is

|  |  |  |  |
| --- | --- | --- | --- |
| a) K | b) Na | c) Ag | d) Zn |

1. Which of the following metals will melt if you kept them on your palm ?

(i) Magnesium (ii) Mercury (iii) Caesium (iv) Gallium

|  |  |  |  |
| --- | --- | --- | --- |
| a) (i) and (iii) | b) (ii) and (iv) | c) (iii) and (iv) | d) (ii) and (iii) |

1. Which of the following element is generally stored in kerosene due to its high reactivity with water and air ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Mg | b) Na | c) P | d) Ca |

1. Which of the following properties is not generally exhibited by ionic compounds ?

|  |  |
| --- | --- |
| a) Solubility in water | b) Electrical conductivity in solid state |
| c) High melting and boiling point | d) Electrical conductivity in molten state |

1. The electronic configurations of three elements X , Y and Z are X = 2 , 8 ; Y = 2 , 8 , 7 and Z = 2 , 8 , 2. Which of the following is correct ?

|  |  |
| --- | --- |
| a) X is a metal | b) Y is a metal |
| c) Z is a non-metal | d) Y is a non-metal and Z is a metal |

1. Generally, non-metals are not lustrous. Which of the following non-metal is lustrous ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Sulphur | b) Oxygen | c) Nitrogen | d) Iodine |

1. Which gas is released when a metal reacts with an acid ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cl2 | b) O2 | c) H2 | d) SO2 |

1. Which reagent is able to dissolve gold and platinum ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Nitric acid | b) Aqua-regia | c) Hydrochloric acid | d) Sulphuric acid |

1. Which of the following can change to a cation ?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Fluorine | b) Oxygen | c) Potassium | d) Neon |

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**Tarun Arora**  **R.L. Institute M :9416974837**

**Max Time : 1 hr** **Human Eye & Colourful World Max Marks : 32**

**CODE : B**

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**Answers**

**Human eye & Metal and non-metal [CLASS = 10th ]**

|  |  |
| --- | --- |
| **CODE : A** | **CODE : B** |
| 1. b | 1. c |
| 2. c | 2. b |
| 3. b | 3. c |
| 4. a | 4. d |
| 5. b | 5. b |
| 6. b | 6. c |
| 7. a | 7. b |
| 8. c | 8. b |
| 9. b | 9. c |
| 10. a | 10. b |
| 11. c | 11. b |
| 12. b | 12. c |
| 13. c | 13. c |
| 14. d | 14. d |
| 15. c | 15. a |
| 16. b | 16. b |
| 17. c | 17. c |
| 18. c | 18. d |
| 19. d | 19. a |
| 20. d | 20. a |
| 21. d | 21. b |
| 22. b | 22. a |
| 23. c | 23. d |
| 24. c | 24. c |
| 25. b | 25. c |
| 26. b | 26. b |
| 27. d | 27. b |
| 28. d | 28. b |
| 29. c | 29. c |
| 30. b | 30. d |
| 31. c | 31. d |
| 32. a | 32. c |