|  |  |
| --- | --- |
| 1. | Superconductors are substances which |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | conduct electricity at low temperature | | [B.](javascript:%20void%200;) | offer high resistance to the flow of current | | [C.](javascript:%20void%200;) | offer no resistance to the flow of electricity | | [D.](javascript:%20void%200;) | conduct electricity at high temperatures | |

*Ans c*

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| --- | --- |
| 2. | Light travels at the fastest speed in |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | glass | [B.](javascript:%20void%200;) | water | | [C.](javascript:%20void%200;) | hydrogen | [D.](javascript:%20void%200;) | vacuum | |

*Ans d*

|  |  |
| --- | --- |
| 3. | Railway tracks are banked on curves |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | necessary centrifugal force may be obtained from the horizontal component weight of the train | | [B.](javascript:%20void%200;) | to avoid frictional force between the tracks and wheels | | [C.](javascript:%20void%200;) | necessary centripetal force may be obtained from the horizontal component of the weight of the train | | [D.](javascript:%20void%200;) | the train may not fly off in the opposite direction | |

*Ans c*

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| --- | --- |
| 4. | On a cold day when a room temperature is 15oC, the metallic cap of a pen becomes much colder than its plastic body, though both are at the same temperature of 15oC, because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | metals have higher thermal capacity than plastics | | [B.](javascript:%20void%200;) | plastics have a lower density than metals | | [C.](javascript:%20void%200;) | metals are good conductor of heat | | [D.](javascript:%20void%200;) | plastics have a higher thermal conductivity than metals | |

*Ans c*

|  |  |
| --- | --- |
| 5. | Intensity of sound at a point is \_\_\_\_ its distance from the source. |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | directly proportional to | | [B.](javascript:%20void%200;) | inversely proportional to | | [C.](javascript:%20void%200;) | directly proportional to square of | | [D.](javascript:%20void%200;) | inversely proportional to square of | |

*Ans d*

|  |  |
| --- | --- |
| 6. | Radio telescopes are better than optical telescopes because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | they can detect faint galaxies which no optical telescope can | | [B.](javascript:%20void%200;) | they can work even in cloudy conditions | | [C.](javascript:%20void%200;) | they can work during the day and night | | [D.](javascript:%20void%200;) | All of the above | |

*Ans d*

|  |  |
| --- | --- |
| 7. | Light Emitting Diodes (LED) is used in fancy electronic devices such as toys emit |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | X-rays | | [B.](javascript:%20void%200;) | ultraviolet light | | [C.](javascript:%20void%200;) | visible light | | [D.](javascript:%20void%200;) | radio waves | |

*Ans c*

|  |  |
| --- | --- |
| 8. | Stars which appear single to the naked eye but are double when seen through a telescope are |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | novas and supernovas | | [B.](javascript:%20void%200;) | binaries | | [C.](javascript:%20void%200;) | asteroids | | [D.](javascript:%20void%200;) | quasars | |

*Ans b*

|  |  |
| --- | --- |
| 9. | Solar eclipse will take place when |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | the sun is between the moon and the earth | | [B.](javascript:%20void%200;) | the earth is between the moon and the sun | | [C.](javascript:%20void%200;) | the moon is between the sun and the earth | | [D.](javascript:%20void%200;) | the moon does not lie on the line joining the sun and the earth | |

*Anc c*

|  |  |
| --- | --- |
| 10. | Sir C.V. Raman was awarded Nobel Prize for his work connected with which of the following phenomenon of radiation? |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | Scattering | [B.](javascript:%20void%200;) | Diffraction | | [C.](javascript:%20void%200;) | Interference | [D.](javascript:%20void%200;) | Polarization | |

*Ans a*

|  |  |
| --- | --- |
| 11. | Radiocarbon dating technique is used to estimate the age of |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | rocks | [B.](javascript:%20void%200;) | monuments | | [C.](javascript:%20void%200;) | soil | [D.](javascript:%20void%200;) | fossils | |

*Ans d*

|  |  |
| --- | --- |
|  | 12)Large astronomical telescopes always use as objective |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | lens | | [B.](javascript:%20void%200;) | mirror | | [C.](javascript:%20void%200;) | combinations of lenses | | [D.](javascript:%20void%200;) | None of the above | |

*Ans c*

|  |  |
| --- | --- |
| 13. | Natural radioactivity was discovered by |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | Marie Curie | | [B.](javascript:%20void%200;) | Ernest Rutherfor | | [C.](javascript:%20void%200;) | Henry Baquerel | | [D.](javascript:%20void%200;) | Enrico Fermi | |

*Ans c*

|  |  |
| --- | --- |
| 14. | It is easier to roll a barrel full of coal tar than to pull it because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | the full weight of the barrel comes into play when it is pulled | | [B.](javascript:%20void%200;) | the rolling friction is much less than the sliding friction | | [C.](javascript:%20void%200;) | more surface area of the barrel is in contact with the road when it is pulled | | [D.](javascript:%20void%200;) | coal tar is a liquid and it flows in the barrel when it is rolled | |

*Ans b*

|  |  |
| --- | --- |
| 15. | Minimum number of unequal vectors which can give zero resultant are |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | two | [B.](javascript:%20void%200;) | three | | [C.](javascript:%20void%200;) | four | [D.](javascript:%20void%200;) | more than four | |

*Ans b*

|  |  |
| --- | --- |
| 16. | Rain is falling vertically downwards. To a man running east-wards, the rain will appear to be coming from |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | east | [B.](javascript:%20void%200;) | west | | [C.](javascript:%20void%200;) | northeast | [D.](javascript:%20void%200;) | southeast | |

*Ans a*

|  |  |
| --- | --- |
| 17. | Radiocarbon is produced in the atmosphere as a result of |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | collision between fast neutrons and nitrogen nuclei present in the atmosphere | | [B.](javascript:%20void%200;) | action of ultraviolet light from the sun on atmospheric oxygen | | [C.](javascript:%20void%200;) | action of solar radiations particularly cosmic rays on carbon dioxide present in the atmosphere | | [D.](javascript:%20void%200;) | lightning discharge in atmosphere | |

*Ans a*

|  |  |
| --- | --- |
| 18. | The absorption of ink by blotting paper involves |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | viscosity of ink | | [B.](javascript:%20void%200;) | capillary action phenomenon | | [C.](javascript:%20void%200;) | diffusion of ink through the blotting | | [D.](javascript:%20void%200;) | siphon action | |

*Ans b*

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| **19.** | **Before X-ray examination (coloured X-ray) of the stomach, patients are given suitable salt of barium because -** | |
|  | **1** | barium is a good absorber of X-rays and helps stomach to appear clearly |
|  | **2** | barium salts are white in colour and this helps stomach to appear clearly |
|  | **3** | barium allows X-rays to pass through the stomach |
|  | **4** | barium salts are easily available |

*Ans 1*

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| --- | --- | --- |
| **20.** | **Which one among the following statements about an atom is not correct?** | |
|  | **1** | Atoms are the basic units from which molecules and ions are formed |
|  | **2** | Atoms always combine to form molecules |
|  | **3** | Atoms aggregate in large numbers to form the matter that we can see, feel and touch |
|  | **4** | Atoms are always neutral in nature |
|  |  |  |

*Ans c*