|  |  |
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| 1. . | 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

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| 2. | It is easier to roll a stone up a sloping road than to lift it vertical upwards because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | work done in rolling is more than in lifting | | [B.](javascript:%20void%200;) | work done in lifting the stone is equal to rolling it | | [C.](javascript:%20void%200;) | work done in both is same but the rate of doing work is less in rolling | | [D.](javascript:%20void%200;) | work done in rolling a stone is less than in lifting it | |

Ans d

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| 3. | 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 | |

Ansb

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| 4. | Siphon will fail to work if |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | the densities of the liquid in the two vessels are equal | | [B.](javascript:%20void%200;) | the level of the liquid in the two vessels are at the same height | | [C.](javascript:%20void%200;) | both its limbs are of unequal length | | [D.](javascript:%20void%200;) | the temperature of the liquids in the two vessels are the same | |

Ans b

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| 5. | Large transformers, when used for some time, become very hot and are cooled by circulating oil. The heating of the transformer is due to |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | the heating effect of current alone | | [B.](javascript:%20void%200;) | hysteresis loss alone | | [C.](javascript:%20void%200;) | both the heating effect of current and hysteresis loss | | [D.](javascript:%20void%200;) | intense sunlight at noon | |

Ans c

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| --- | --- |
| 6. | Nuclear sizes are expressed in a unit named |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | Fermi | [B.](javascript:%20void%200;) | angstrom | | [C.](javascript:%20void%200;) | newton | [D.](javascript:%20void%200;) | tesla | |

ans a

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| 7. | Mirage is due to |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | unequal heating of different parts of the atmosphere | | [B.](javascript:%20void%200;) | magnetic disturbances in the atmosphere | | [C.](javascript:%20void%200;) | depletion of ozone layer in the atmosphere | | [D.](javascript:%20void%200;) | equal heating of different parts of the atmosphere | |

Ans a

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| 8. | Light from the Sun reaches us in nearly |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | 2 minutes | | [B.](javascript:%20void%200;) | 4 minutes | | [C.](javascript:%20void%200;) | 8 minutes | | [D.](javascript:%20void%200;) | 16 minutes | |

Ans c

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| 9. | Stars appears to move from east to west because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | all stars move from east to west | | [B.](javascript:%20void%200;) | the earth rotates from west to east | | [C.](javascript:%20void%200;) | the earth rotates from east to west | | [D.](javascript:%20void%200;) | the background of the stars moves from west to east | |

Ans b

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| 10. | Pa(Pascal) is the unit for |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | thrust | [B.](javascript:%20void%200;) | pressure | | [C.](javascript:%20void%200;) | frequency | [D.](javascript:%20void%200;) | conductivity | |

Ans b

|  |  |
| --- | --- |
| 11. | Planets do not twinkle because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | they emit light of a constant intensity | | [B.](javascript:%20void%200;) | their distance from the earth does not change with time | | [C.](javascript:%20void%200;) | they are very far away from the earth resulting in decrease in intensity of light | | [D.](javascript:%20void%200;) | they are nearer to earth and hence we receive a greater amount of light and, therefore minor variations in the intensity are not noticeable | |

**Ans d**

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| 12. | Metals are good conductors of electricity because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | they contain free electrons | | [B.](javascript:%20void%200;) | the atoms are lightly packed | | [C.](javascript:%20void%200;) | they have high melting point | | [D.](javascript:%20void%200;) | All of the above | |

**Ans a**

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| 13. | Let a thin capillary tube be replaced with another tube of insufficient length then, we find water |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | will overflow | | [B.](javascript:%20void%200;) | will not rise | | [C.](javascript:%20void%200;) | depressed | | [D.](javascript:%20void%200;) | change its meniscus | |

**Ans b**

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| 14. | Out of the following pairs, choose the pair in which the physical quantities do not have identical dimension? |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | Pressure and Young's modules | | [B.](javascript:%20void%200;) | Planck's constant and Angular momentum | | [C.](javascript:%20void%200;) | Impulse and moment of force | | [D.](javascript:%20void%200;) | Force and rate of change of linear momentum | |

**Ans c**

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| 15. | If two bodies of different masses, initially at rest, are acted upon by the same force for the same time, then the both bodies acquire the same |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | velocity | [B.](javascript:%20void%200;) | momentum | | [C.](javascript:%20void%200;) | acceleration | [D.](javascript:%20void%200;) | kinetic energy | |

**Ans b**

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| --- | --- |
| 16. | Rectifiers are used to convert |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | Direct current to Alternating current | | [B.](javascript:%20void%200;) | Alternating current to Direct current | | [C.](javascript:%20void%200;) | high voltage to low voltage | | [D.](javascript:%20void%200;) | low voltage to high voltage | |

**Ans b**

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| --- | --- |
| 17. | Magnetism at the centre of a bar magnet is |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | minimum | [B.](javascript:%20void%200;) | maximum | | [C.](javascript:%20void%200;) | zero | [D.](javascript:%20void%200;) | minimum or maximum | |

**Ans c**

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| --- | --- |
| 18. | It is more difficult to walk on a sandy road than on a concrete road because |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | sand is soft and concreter is hard | | [B.](javascript:%20void%200;) | the friction between sand and feet is less than that between concrete and feet | | [C.](javascript:%20void%200;) | the friction between sand and feet is more than that between concrete and feet | | [D.](javascript:%20void%200;) | the sand is grainy but concrete is smooth | |

**Ans b**

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| 19. | Of the following properties of a wave, the one that is independent of the other is its |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | amplitude | [B.](javascript:%20void%200;) | velocity | | [C.](javascript:%20void%200;) | wavelength | [D.](javascript:%20void%200;) | frequency | |

**Ans a**

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| 20. | Lux is the SI unit of |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | intensity of illumination | | [B.](javascript:%20void%200;) | luminous efficiency | | [C.](javascript:%20void%200;) | luminous flux | | [D.](javascript:%20void%200;) | luminous intensity | |

**Ans a**

|  |  |
| --- | --- |
| 21. | Materials for rain-proof coats and tents owe their water-proof properties to |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | surface tension | | [B.](javascript:%20void%200;) | viscosity | | [C.](javascript:%20void%200;) | specific gravity | | [D.](javascript:%20void%200;) | elasticity | |

**Ans a**

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| 22. | Sound of frequency below 20 Hz is called |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | audio sounds | | [B.](javascript:%20void%200;) | infrasonic | | [C.](javascript:%20void%200;) | ultrasonic | | [D.](javascript:%20void%200;) | supersonics | |

**Ans b**

|  |  |
| --- | --- |
| 23. | Moment of inertia is |
| |  |  |  |  | | --- | --- | --- | --- | | [A.](javascript:%20void%200;) | vector | [B.](javascript:%20void%200;) | scalar | | [C.](javascript:%20void%200;) | phasor | [D.](javascript:%20void%200;) | tensor | |

**Ans d**

|  |  |
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| 24. | Inside an aeroplane, flying at a high altitude, |
| |  |  | | --- | --- | | [A.](javascript:%20void%200;) | the pressure is the same as that outside | | [B.](javascript:%20void%200;) | normal atmospheric pressure is maintained by the use of air pumps | | [C.](javascript:%20void%200;) | the pressure inside is less than the pressure outside | | [D.](javascript:%20void%200;) | normal humidity and partial vacuum are maintained | |

**Ans b**