

NAT II Physical Science Physics

| Sr | Quastions | Answers Choice |
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| 1 | A conducting wire is drawn to double its length. Final resistivity of the material will be | A. Double of the original one B. Half of the original one C. One-fourth of the original one D. Same as original one |
| 2 | Velocity of sound in a diatomic as is 300 m/sec, what is its rms velocity? | A. 400 m/sec B. 40 m/sec C. 430 m/sec D. 300 m/sec |
| 3 | A pendulum clock set to give correct time in Karachi is taken to Quetta. It would give correct time if | A. The mass of the pendulum is increased B. The mass of the pendulum is decreased C. The length of the pendulum is increased D. The length of the pendulum is decreased |
| 4 | In Young's experiment, two coherent sources are placed 0.90 mm apart and the fringes are observed one metre away. If its produces the second dark fringe at a distance of 1 mm from the central fringe, the wavelength of monochromatic light used would be | A. 60 x 10 ⁻⁴ cm B. 10 x 10 ⁻⁴ cm C. 10 x 10 ⁻⁵ cm D. 6 x 10 ⁻⁵ cm |
| 5 | A couple produces | A. Purely linear motion B. Purely rotational motion C. Linear and rotational motion D. No motion |
| 6 | Two forces of 10N and 15N are acting simultaneously on an object in the same direction. Their resultant is | A. Zero B. 5N C. 25N D. 150N |
| 7 | The unit of electric current 'ampere' is the amount of current flowing through each of two parallel wires 1 m apart and of infinite length will give rise to a force between them equal to | A. 1 N/m B. 2 x 10 ⁻⁷ N/m C. 1 x 10 ⁻² N/m D. 4 x 10 ² N/m |
| 8 | In a voltmeter the conduction takes place due to | A. Electrons only B. Holes only C. Electrons and holes D. Electrons and ions |
| 9 | The structure of solids is investigated by using | A. Cosmic Rays B. X-rays C. Intra red Radiation D. γ-rays |
| 10 | A cable that can support a load W is cut into two equal parts. The maximum load that can be supported by either part is: | A. W/4 B. W/2 C. W D. 2W |
| 11 | In which case application of angular velocity is useful? | A. When a body is rotating B. When velocity of body is in a straight line C. When velocity is in a straight line D. None of these |
| 12 | Two sources of sound are said to be coherent if | A. They produce sounds of equal intensity B. They produce sounds of equal frequency C. They produce sound waves vibrating with the same phase D. They produce sound waves with zero or constant phase different all instant of time |
| | | A. Phase of different colors is different B. Amplitude of different colors is |

| If the amplitude of sound is doubled and the frequency reduced to one-fourth, the intensity of sound at the same point will be It is becreasing by a factor of 2 B. Decreasing by a factor of 2 C. Decreasing by a factor of 2 D. Unchanged A. Fringe width B. Intensity ratio of the sources C. Distance between the slits D. Wavelength A voltmeter has resistance of 2000 ohms and it can measure up to 2V. If we want to increase its range to 10V then required resistance in series will be A 2000 ohm B. 4000 ohm B. 4000 ohm D. 8000 ohm D | 13 | A prism splits a beam of white light into its seven constituent colors. This is so because | different C. Energy of different colors is different D. Velocity of different colors is different |
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| The contrast in the fringes in any interference pattern depends on B. Intensity ratio of the sources C. Distance between the slits D. Wavelength A 2000 ohm B. 4000 ohm B. 4000 ohm C. 6000 ohm D. 8000 ohm D. 8 | 14 | | B. Decreasing by a factor of 2 C. Decreasing by a factor of 4 |
| A voltmeter has resistance of 2000 ohms and it can measure up to 2V. If we want to increase its range to 10V then required resistance in series will be 17 How much water a pump of 2kW can raise in one minute to a height of 10 m, take g = 10 18 When boron is added as an impurity to silicon, the resulting material is. A n type conductor B. n type semiconductor C. p-type semiconductor D. p-type semiconductor D. p-type semiconductor D. p-type semiconductor D. K two fold, U also two fold B. K four fold, U also four fold D. K two fold, U four fold | 15 | The contrast in the fringes in any interference pattern depends on | B. Intensity ratio of the sourcesC. Distance between the slits |
| How much water a pump of 2kW can raise in one minute to a height of 10 m, take g = 10 m/s ² ? When boron is added as an impurity to silicon, the resulting material is. A. n type conductor B. n type semiconductor C. p-type conductor D. p-type semiconductor D. p-type semiconductor A. K two fold, U also two fold B. K four fold, U also four fold C. K four fold, U two fold D. K two fold, U four fold | 16 | | B. 4000 ohm C. 6000 ohm |
| When boron is added as an impurity to silicon, the resulting material is. B. n type semiconductor C. p-type conductor D. p-type semiconductor A. K two fold, U also two fold B. K four fold, U also two fold B. K four fold, U also four fold C. K four fold, U also four fold C. K four fold, U four fold D. K two fold, U four fold C. K four fold, U four fold C. K four fold, U four fold D. K two fold, U four fold D. K two fold, U four fold C. K four fold, U four fold D. K two fold, U four fold C. K four fold, U four fold D. K two fold, U four fold D. K two fold, U four fold D. K two fold, U four fold C. K four fold, U four fold D. K two fold, U four fold | 17 | | B. 1200 liters C. 100 liters |
| As the electron in Bohr orbit of hydrogen atom passes from stat n = 2 to n = 1, the kinetic energy K and potential energy U change as B. K four fold, U also four fold C. K four fold, U two fold D. K two fold, U four fold A bullet is shot from a rifle. As a result the rifle recoils. The kinetic energy of rifle as compared to that of bullet is | 18 | When boron is added as an impurity to silicon, the resulting material is. | B. n type semiconductor C. p-type conductor |
| A bullet is shot from a rifle. As a result the rifle recoils. The kinetic energy of rifle as compared to that of bullet is C. Equal | 19 | | B. K four fold, U also four fold C. K four fold, U two fold |
| E. Samile, pe constauce | 20 | | B. Greater |