

JEE Mains 2024 Shift 2 Question Paper (29 January)

Check out the JEE Mains 2024 Shift 2 Question Paper on physics chemistry and mathematics below.

JEE Mains Physics Questions 29 January 2024 Shift 2

1. A rod of length 2m moving with velocity 2m/s along the positive z-axis and $B = 2\text{T}$ along the negative side x-axis. Find the emf induce in the rod
2. In a simple pendulum of length 10 m, the string is initially kept horizontal and the bob is released. 10% of energy is lost till the bob reaches the lowermost position. Then find the speed of bob at the lowermost position.
a 6 m/s
b $6\sqrt{5}\text{ m/s}$
c $7\sqrt{5}\text{ m/s}$
d $4\sqrt{2}\text{ m/s}$
3. A planet at a distance r from the sun takes 200 days to complete one revolution around the sun. what will be the period for a planet at a distance $r/4$ from the sun?
4. Find the speed of the bob at the lowermost position, If a simple pendulum of length 10 m, the string is initially kept horizontal and the bob is released. 10% of energy is lost till the bob reaches the lowermost position.
5. The intensity at each slit is equal for a YDSE and it is maximum I_{max} at central maxima. If I is intensity for phase difference $7\pi/2$ between two waves at the screen. Then I/I_{max} is ?

JEE Mains Shift 2 Chemistry Questions 29 January 2024

1. What will be the reason behind the oxygen showing anomalous behaviour?
2. What will be the IUPAC Name of the compound where there is a cyclohexane ring the alkene is in the second position and in the first position there is alcohol (OH)
3. Among the given options which has the highest ionization enthalpy (Si, Al, C, N)?
1. Among the given ions which is the best-reducing agent (Lu^{3+} , Nd^{3+} , Ce^{4+} , Gd^{2+})?
4. What will be the oxidation state of Iron in the complex formed in the brown ring test?
5. Neslers Reagent given brown colour with?
6. Along the given list which of the following compounds has zero dipole moment (NH_3 , H_2O , HF , CO_2 , SO , BF_3 , CH_4)?

JEE Mains Mathematics Questions 29 Jan 2024 Shift 2

1. Find the probability that the number is a multiple of 4 or 6 or 7 If in the given set = $\{1, 2, 3, \dots, 50\}$ one number is selected randomly from a set.

2. What will be the remainder when

is divided by 9?

3. What will be the value of $12A$ if the area bounded by $0 < (\text{equal to}) y < (\text{equal to}), \min\{x+2, 2x+2\}$, x is an element of $[3,0]$?

4. $A = \{1, 2, 3, 4\}$ minimum number of elements added to make it equivalence relation on set A containing $(1, 3)$ & $(1, 2)$ in it