JEE Main Daily Practice Problems (DPP) and Questions 2024

Physics JEE Main Practice Question (DPP)

Question 1: AN X-ray tube operates at 1.24 million volts. The shortest wavelength of the produced photon will be:

Option 1: 10^{-1} nm

Option 2: 10^{-2} nm

Option 3: 10^{-3} nm

Option 4: 10^{-2}4 nm

Question 2: The de Broglie wavelength of a proton and a particle are equal. The ratio of their velocities is:

Option 1: 4:1

Option 2: 4:2

Option 3: 4:3

Option 4: 4:4

Question 3: According to the Bohr atom model, in which of the following transitions will the frequency be maximum?

Option 1: n = 2 to n = 1

Option 2: n = 3 to n = 2

Option 3: n = 4 to n = 3

Option 4: n = 5 to n = 4

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Chemistry JEE Main Practice Questions (DPP)

Question 1: Given Below are two statements: one is labeled as Assertion A and the other is labelled as Reason R

Assertion A: Hydrogen is the most abundant element in the Universe, but it is not the most abundant gas in the troposphere

Reason R: Hydrogen is the Lightest element (In light of statements 1 and 2, choose the correct answer from the option given)

Option 1: Both A and R are true and R is the correct explanation of A

Option 2: Both A and R are true and R is not the correct explanation of A

Option 3: A is true but R is false

Option 4: A is false but R is true

Question 2: The incorrect statement among the following is:

Option 1: $VOSO_4$ is a reducing agent

Option 2: RuO_4 is an oxidising agent

Option 3: Cr_2O_3 is an amphoteric agent

Option 4: The red colour of ruby is due to the presence of Co^{3+}

Mathematics JEE Main Practice Questions (DPP)

Question 1: The angle of elevation of a jet plane from point A on the ground is 60 degrees. After a flight of 20 seconds at the speed of 432 km/hour, the angle of elevation changes to 30 degrees. If the jet plane is flying at a constant height, then its height is:

Option 1: 3600 root 3 m

Option 2: 2400 root 3 m

Option 3: 1800 root 3 m

Option 4: 1200 root 3 m

Question 2: Let A and B be 3 x 3 real matrices such that A is a symmetric matrix and B is a skew-symmetric matrix. Then the system of linear equations (A?B2 - B?A?) X=0, where X is a 3x1 column matrix of unknown variables and O is a 3x1 null matrix, has:

Option 1: No Solution

Option 2: A Unique Solution

Option 3: Exactly Two Solution

Option 4: Infinitely many Solutions