

## JEE Main 2024 Daily Practice Questions

### Mathematics:

**Ques.** Out of 60% female and 40% male candidates appearing in an exam, 60% of candidates qualify for it. The number of females qualifying for the exam is twice the number of males qualifying for it. A candidate is randomly chosen from the qualified candidates. The probability, that the chosen candidate is a female is:

1.  $\frac{3}{4}$
2.  $\frac{11}{16}$
3.  $\frac{23}{32}$
4.  $\frac{13}{16}$

**Ques.** The remainder when  $7^{2022} + 3^{2022}$  is divided by 5 is:

1. 0
2. 2
3. 3
4. 4

**Ques.** Let the curves  $y^2 = kx$  and  $xy = -1$  have a common tangent, whose slope is  $\frac{1}{2}$ . Then  $k$  can NOT lie in the interval.

1.  $(2, 4]$
2.  $(-3, -1)$
3.  $[-4, -3]$
4.  $(1, 3)$

**Chemistry:**

**Ques.** A NCC parade is going at a uniform speed of 9 km/ h under a mango tree on which a monkey is sitting at a height of 19.6 m. At any particular instant, the monkey drops a mango. A cadet will receive the mango whose distance from the tree at the time of drop is:

(Given  $g = 9.8 \text{ m/s}^2$ )

1. 5 m
2. 10 m
3. 19.8 m
4. 24.5 m

**Ques.** A balloon has a mass of 10g in the air. The air escapes from the balloon at a uniform rate with a velocity of 4.5 cm/ s. If the balloon shrinks in 5s completely. Then the average force acting on that balloon will be (in dyne).

1. 3
2. 9
3. 12
4. 18

**Ques.** If the radius of the earth shrinks by 2% while its mass remains the same. The acceleration due to gravity on the earth's surface will approximately/

1. Decrease by 2%
2. Decrease by 4%
3. Increase by 2%

4. Increase by 4%

**Chemistry:**

**Ques.** In which of the following pairs, electron gain enthalpies of constituent elements are nearly the same or identical?

- A. Rb and Cs
- B. Na and K
- C. Ar and Kr
- D. I and At

Choose the correct answer from the options given below:

- 1. A and B only
- 2. B and C only
- 3. A and C only
- 4. C and D only

**Ques.** Which of the following statement is incorrect?

- 1. Low solubility of LiF in water is due to its small hydration enthalpy.
- 2.  $\text{KO}_2$  is paramagnetic
- 3. The solution of sodium in liquid ammonia is conducting in nature
- 4. Sodium metal has a higher density than potassium metal