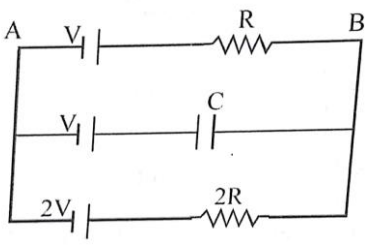


Hunt for Junior CV Raman – 2022

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Class XII- ENGG SAMPLE QUESTION PAPER

PHYSICS

1.	The electric field strength at a distance r from a charge q is E . What will be electric field strength if the distance of the observation [point is increased to $2r$] a) $E/2$ b) $E/4$ c) $E/6$ d) None of the above
2.	In the given circuit with steady current, the potential drop across the capacitor must be <div style="text-align: center;">  </div> a) $\frac{2V}{3}$ b) $\frac{V}{3}$ c) $\frac{V}{2}$ d) V

CHEMISTRY

3.	Total no. of electrons present in 48g of Mg^{2+} are: a) $24 N_A$ b) $2 N_A$ c) $20 N_A$ d) None of these
4.	Which one of the following metals cannot be obtained on electrolysis of aqueous solution of its salts? (a)Mg (b)Ag (c)Cu (d)Cr

MATHS

5.	Two adjacent sides of a parallelogram ABCD are $2\hat{i} + 4\hat{j} - 5\hat{k}$ and $\hat{i} + 2\hat{j} + 3\hat{k}$. Then the value of $ \vec{AC} \times \vec{BD} $ is a) $20\sqrt{5}$ b) $22\sqrt{5}$ c) $24\sqrt{5}$ d) $26\sqrt{5}$
6.	The domain of the function $f(x) = \frac{1}{\sqrt{ x - x}}$ is (0, ∞) b) $(-\infty, 0)$ c) $(-\infty, \infty) - \{0\}$ d) $(-\infty, \infty)$
7.	The curve given by $x + y = e^{xy}$ has a tangent parallel to the $y =$ axis at the point (0, 1) b) (1, 0) c) (1, 1) d) none of these

MENTAL ABILITY

8.	Reaching the place of the meeting 20 minutes before 8.50 hrs Sumit found himself thirty minutes earlier than the man who came 40 minutes late. What was the scheduled time of the meeting? a) 8.00 b) 8.05 c) 8.10 d) 8.20
9.	<i>Institute</i> is related to <i>Academy</i> in the same way as <i>Decree</i> is related to ____? a) Blame b) Court c) Judge d) Mandate
10.	I am facing South. I turn right and walk 20 m. Then I turn Right again and walk 10 m. Then I turn left and walk 10 m and then turn right and walk 20 m. Then I turn right again and walk 60 m. In which direction am I from the starting point? a) North b) North-west c) East d) North-east