

# VITEEE 2021 Memory Based Questions and Answers for 28 May Slot 4

Q: Tangents PQ, PR are drawn from P = (5,0) to the ellipse  $\left(\frac{x^2}{16} + \frac{y^2}{9} = 1\right)$ . The length of the chord QR is:

1.  $\frac{6}{5}$
2.  $\frac{8}{5}$
3.  $\frac{18}{5}$
4.  $\frac{9}{5}$

Q: Arrange the following compounds in order of increasing dipole moment

I) Toluene II) m-dichlorobenzene III) o-dichlorobenzene IV) p-dichlorobenzene

1. I<IV<II<III
2. IV<I<II<III
3. IV<I<III<II
4. IV<II<I<III

Q: If  $f(x) = x^2 + 2x^2 + 4x + d$  and  $0 < b^2 < c$ , then in  $(-\infty, \infty)$

1.  $f(x)$  is strictly increasing function
2.  $f(x)$  has local maxima
3.  $f(x)$  is strictly decreasing function
4.  $f(x)$  is bounded

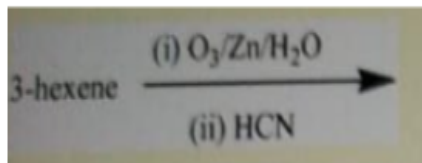
Q: An example of Polysaccharide is

1. Maltose
2. Cellulose
3. Glucose
4. Sucrose

Q: Which ion is expected to form colored species?

1.  $Ti^{4+}$
2.  $Cr^{3+}$
3.  $Zn^{2+}$
4.  $Cu^+$

Q: The product of the following reaction possesses:



1. Both geometric and optical isomerism
2. Geometric isomerism
3. Optical isomerism
4. Structural Isomerism

Q: Ethers should not be evaporated to dryness as the peroxide formed is:

1. Poisonous
2. Insoluble in water
3. Explosive
4. An air pollutant

Q: The cis- $[(\text{NH}_3)_2\text{PtCl}_2]$  is mostly used in

1. Medicine
2. Glass
3. Paint
4. Paper

Q: A parallel plate capacitor has a capacitance of  $80 \mu\text{F}$ . The area between the plates is filled by 4 identical dielectric slabs with different dielectric constants (3,2,5 and 6). What will be the new capacitance?

1.  $5 \mu\text{F}$
2.  $320 \mu\text{F}$
3.  $1280 \mu\text{F}$
4.  $20 \mu\text{F}$