

JEE Main 2024 Chemistry Question Paper

April 9 Shift 2

(B.E./B.Tech)

JEE Main Chemistry Questions

**Ques 1. Correct order of bond angle of following compounds is:
 BF_3 , PF_3 , ClF_3**

- A. $\text{BF}_3 > \text{PF}_3 > \text{ClF}_3$
- B. $\text{PF}_3 > \text{ClF}_3 > \text{BF}_3$
- C. $\text{ClF}_3 > \text{PF}_3 > \text{BF}_3$
- D. $\text{BF}_3 > \text{ClF}_3 > \text{PF}_3$

Ans. A

Ques 2. Identify the correct electronic configuration of Einsteinium is

- A. $[\text{Rn}]5f^{14}6d^{17}s^2$
- B. $[\text{Rn}]5f^{11}7s^2$
- C. $[\text{Rn}]5f^{10}6d^{17}s^2$
- D. $[\text{Rn}]5f^{11}6d^{17}s^1$

Ans. B

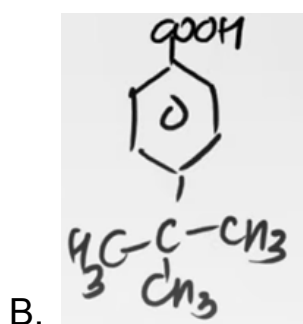
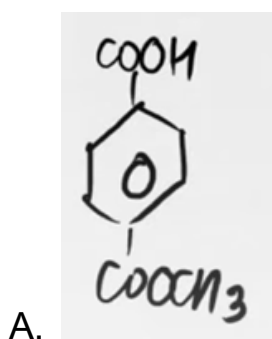
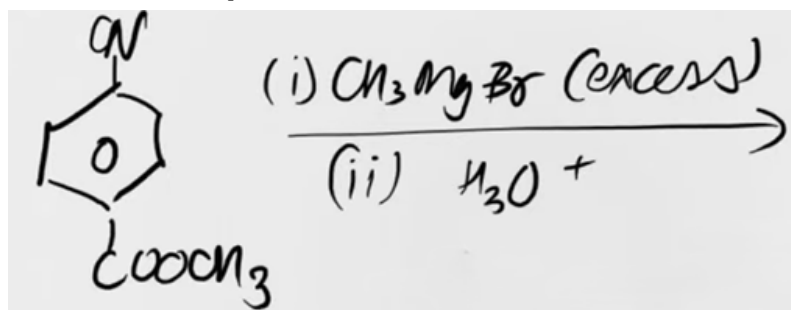
Ques 3. Ca^{2+} makes which type of complex with EDTA

- A. Trigonal bipyramidal

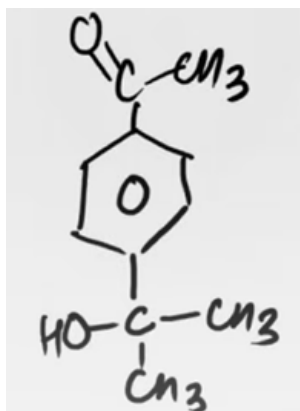
- B. Square Planer
- C. Tetrahedral
- D. Octahedral

Ans. D

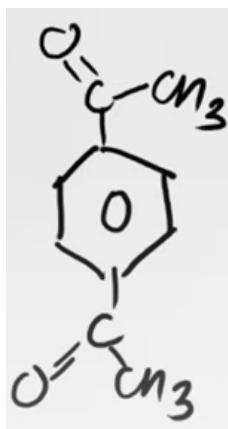
Ques 4. The product obtained in the following reaction is:



C.



D.



Ans. C

Ques 5. Fuming sulphuric acid has how many oxygen atoms?

Ans. 7

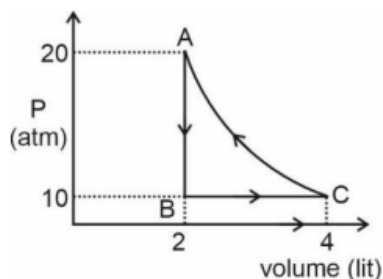
Ques 6. Total sum of number of electrons in π^* orbitals of O_2 , O_2^+ and O_2^- is:

Ans. 6

Ques 7. Which one of the following statements regarding glucose is incorrect?

- A. Glucose is one of the monosaccharides of sucrose
- B. Glucose dissolves in water because it has aldehyde group.
- C. Glucose has six carbon atoms in its structure
- D. Glucose is an aldose

Ans. B



Ques 8.

What is the work done on the gas in cyclic process ABCA

- A. +773.7 J
- B. -773.7 J
- C. +4762.3 J
- D. -4762.3 J

Ans. A

Ques 9. Which of the following compounds does not give Tollen's test?

- A. Formaldehyde
- B. Formic acid
- C. Benzaldehyde
- D. Acetone

Ans. D

Ques 10. What is the correct order of C – C bond length of ethane, ethene and ethyne?

- A. Ethane > Ethene > Ethyne
- B. Ethene > Ethane > Ethyne
- C. Ethyne > Ethene > Ethane

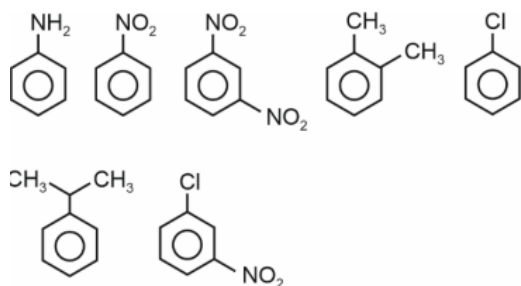
D. Ethyne > Ethane > Ethene

Ans. A

Ques 11. Among the elements – Sc, Ti, V, Cr, Mn find magnetic moment of element which have highest ionization enthalpy in +2 oxidation state. [Nearest integer]

Ans. 6

Ques 12. How many of the following compounds will give Friedel Craft's reaction?



Ans. 3
