



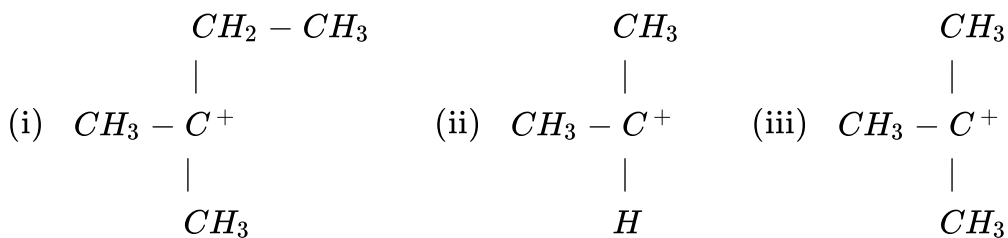
CHEMISTRY

BOOKS - AIIMS PREVIOUS YEAR PAPERS

AIIMS 2019 25 MAY EVENING SHIFT

Chemistry

1. Stability order of following carbocation :



A. i gt ii gt iii gt iv

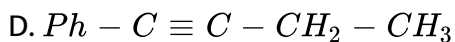
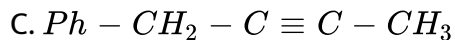
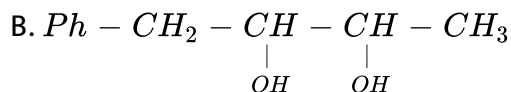
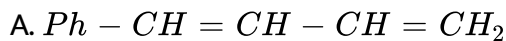
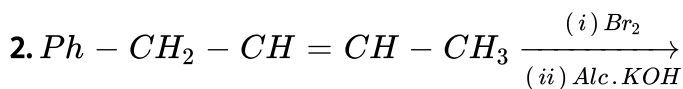
B. iv gt iii gt i gt ii

C. iv gt iii gt ii gt i

D. iii gt iv gt ii gt i

Answer: B

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Answer: C

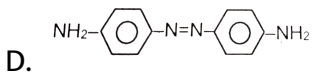
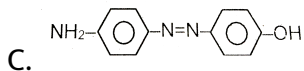
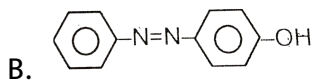
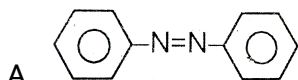
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3. Assertion : Nylon-6 is condensation polymer

Reason : It is polymer of caprolactum

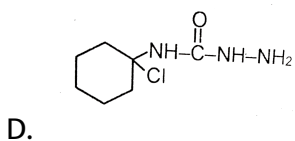
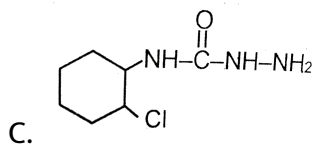
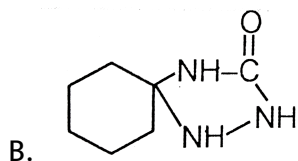
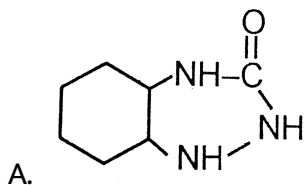
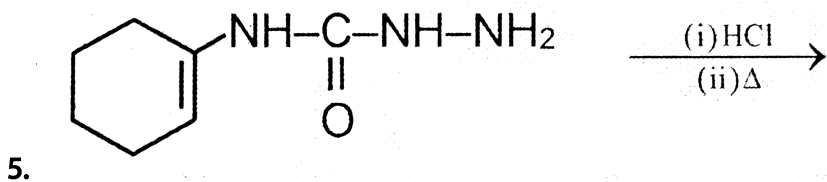
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4. Phenol + Aniline $\xrightarrow[\text{KOH}]{\text{C}_6\text{H}_5\text{N}_2^+\text{Cl}}$ Major Product : Product will be:



Answer: B

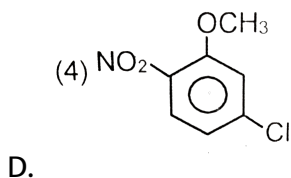
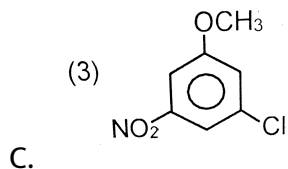
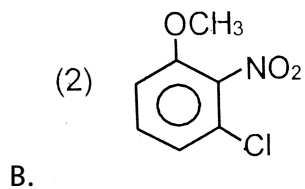
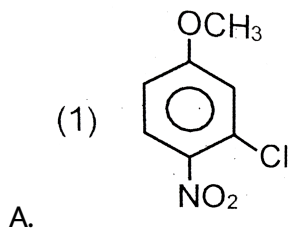
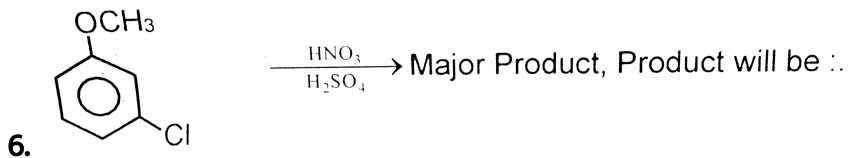
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Answer: B



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Answer: A



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7. Which of the following statement is correct for oleum ?

- A. It is prepared by adsorption of SO_3 in conc. H_2SO_4
- B. It contains O–O groups
- C. It has six OH groups
- D. None of these

Answer: A



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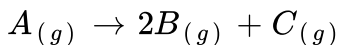
8. How many spectral line of balmer series present in visible region :

- A. 5
- B. 4
- C. 2
- D. 3

Answer: B

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9. For a first order gas phase reaction :



P_0 be initial pressure of A and P_t the total pressure at time 't'. Integrated rate equation is :

A. $\frac{2.303}{t} \log \left(\frac{P_0}{P_0 - P_t} \right)$

B. $\frac{2.303}{t} \log \left(\frac{2P_0}{3P_0 - P_t} \right)$

C. $\frac{2.303}{t} \log \left(\frac{P_0}{2P_0 - P_t} \right)$

D. $\frac{2.303}{t} \log \left(\frac{2P_0}{2P_0 - P_t} \right)$

Answer: B

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10. Assertion : Out of CrO_3 & Al_2O_3 , CrO_3 having lower melting point than Al_2O_3 .

Reason: Oxidation state of Cr in CrO_3 is high

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11. Out of BeF_2 , MgF_2 , CaF_2 , SrF_2 which has maximum solubility :

A. BeF_2

B. MgF_2

C. CaF_2

D. SrF_2

Answer: A

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12. $[Co(Cr_2O_4)_3]^{3-}$ is a

A. Low spin complex

B. Paramagnetic

C. High spin

D. sp^3d^2 hybridized

Answer: A

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13. Which of the following has highest ratio of reducing hydrogen / OH :

A. Orthophosphoric acid

B. Hypophosphorus acid

C. Phosphorus acid

D. Pyrophosphoric acid

Answer: B

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14. 1 mole of a diatomic is heated through isochoric process from 300 k to 500 K. The entropy is :

A. 19.14

B. 38.26

C. 20.05

D. 30

Answer: A



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15. Formula of metal oxide with metal deficiency defect in its crystal is $A_{0.8}O$. The crystal contains A^{2+} and A^{3+} ions. The fraction of metal existing as A^{2+} ions in the crystal is -

A. 0.96

B. 0.04

C. 0.5

D. 0.31

Answer: C

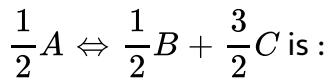


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16. Reaction $A \rightleftharpoons B + 3C$ at 25°C temperature reaction on equilibrium.

If equilibrium constant and Gibb's free energy are Y and X respectively.

The Gibb's free energy for reaction



A. \sqrt{x}

B. x^2

C. $x^{2/3}$

D. $X/2$

Answer: D



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17. At 527°C temperature the activation energy is 54.7 KJ/mole . The value of Arrhenius factor is 4×10^{10} . The rate constant will be

A. 12.28×10^{11}

B. 14.58×10^{13}

C. 12.28×10^{17}

D. 14.58×10^{-13}

Answer: B



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