



PAPER SOLUTION

From Meerut

JEE MAIN

JAN

SHIFT

28

1st

2026

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CVPS INTEGRATED STAR COURSE



JEE MAIN 2026 LIVE PAPER DISCUSSION

#Q. In Carius method of estimation of 'Br', 1.53 g of an organic compound gave 1 g AgBr. The % of Br in organic compound is, (Atomic mass of Ag, Br = 108, 80 u respectively)

A 35.23

B 43.53

C 27.81

D 22.71

Ans. (C)



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#Q. In period 4 of the periodic table which elements have the highest and lowest atomic radii respectively.

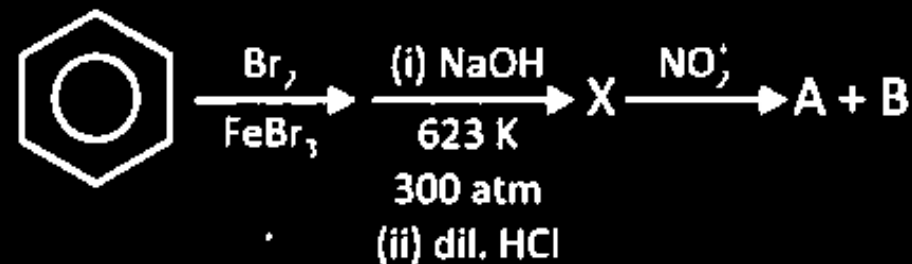
- A** K and Br
- B** Na and Cl
- C** K and Se
- D** Rb and Br

Ans. (A)



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#Q. Consider the following reaction sequence :



The organic product 'A' and 'B' can be separated by

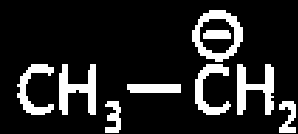
- A** Steam distillation
- B** Fractional distillation
- C** Distillation under reduced pressure
- D** Azeotropic distillation

Ans. (A)



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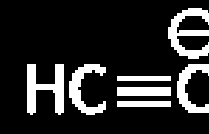
#Q. Consider following ions



(I)



(II)



(III)

Stability of ions is in order.



Ans. (A)



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#Q. For a first order reaction, $X \rightarrow Y + Z$, time required for decomposition of $\frac{1}{8}th$ and $\frac{1}{10}th$ of its initial conc. is $t_{1/8}$ and $t_{1/10}$.
the value of $(t_{1/8}/t_{1/10}) \times 10 =$
Take : $\log 8 = 0.90$, $\log 7 = 0.84$, $\log 9 = 0.95$

- A** 9
- B** 10
- C** 12
- D** 8

Ans. (C)



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#Q. Choose the correct statements in respect of hydrides of Group-15.

- A. Reducing power increasing down the group.
- B. Basic nature increases down the group.
- C. Stability decreases down the group.
- D. Boiling point decreases regularly down the group.

A A, B and C only

B A, B and D only

C A and C only

D B, C and D only

Ans. (C)



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#Q. Which is correct option.

- (A) $[\text{Ni}(\text{CN})_4]^{2-}$ is paramagnetic while $[\text{NiCl}_4]^{2-}$ and $[\text{Ni}(\text{CO})_4]$ are diamagnetic.
- (B) $[\text{Ni}(\text{CN})_4]^{2-}$ and $[\text{Ni}(\text{CO})_4]$ are diamagnetic while $[\text{NiCl}_4]^{2-}$ is paramagnetic.
- (C) $[\text{NiCl}_4]^{2-}$ and $[\text{Ni}(\text{CO})_4]$ are paramagnetic while $[\text{Ni}(\text{CN})_4]^{2-}$ is diamagnetic.
- (D) $[\text{NiCl}_4]^{2-}$ and $[\text{Ni}(\text{CN})_4]^{2-}$ are paramagnetic while $[\text{Ni}(\text{CO})_4]$ is diamagnetic.

A A

B B

C C

D D

Ans. (B)



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#Q. The wave number of three spectral lines of H-atom are given. Identify the correct set of spectral lines belonging to Balmer series

- A** $5R/36, 3R/16, 21R/100$
- B** $3R/4, 3R/16, 7R/144$
- C** $7R/144, 3R/16, 16R/255$
- D** $5R/36, 3R/16, 21R/24$

Ans. (A)



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#Q. Given below are two statements.

Statement I : Among XeF_4 , BF_4^- and SF_4 the species having equal M-X bond lengths are XeF_4 and BF_4^- .

(M = central atom).

Statement II : Among O_2^{2-} , O_2^- , F_2 and O_2^+ the highest bond order is for F_2 and O_2^{2-} .

In the light of the above statements, choose the most appropriate option.

- A** Both statement-I and statement-II are correct
- B** Both statement-I and statement-II are incorrect
- C** Statement-I is correct but statement-II is incorrect
- D** Statement-I is incorrect but statement-II is correct

Ans. (C)



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#Q. Among the following coloured ion is/are:

- A** Ti^{3+} and V^{3+}
- B** Ti^{3+} and Sc^{3+}
- C** Ti^{4+} and V^{3+}
- D** V^{2+} and Sc^{3+}

Ans. (A)



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#Q. At $T(K)$, 2 moles of liquid A and 3 moles of liquid B are mixed. The vapour pressure of ideal solution SO formed is 320 mm Hg. At this stage one mole of A are mixed further, the vapour pressure is found to be 340 mm Hg. The vapour pressure of pure A and B are respectively

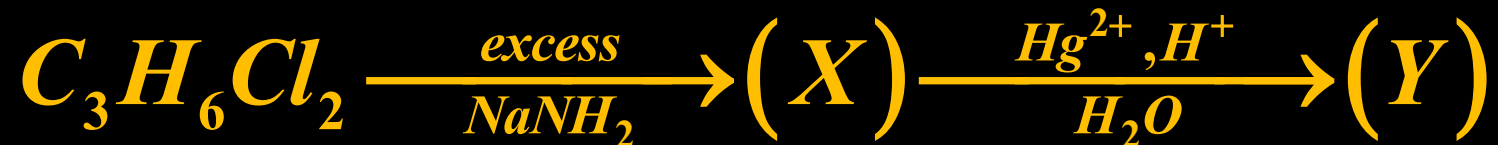
- A** 200 mm Hg, 400 mm Hg
- B** 440 mm Hg, 240 mm Hg
- C** 300 mm Hg, 400 mm Hg
- D** 240 mm Hg, 440 mm Hg

Ans. (B)



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#Q. Observe the following reaction:



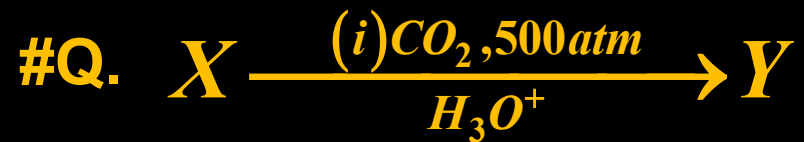
The product (Y) gives which of the following test?

- A** Tollen's test
- B** Lucas test
- C** Iodoform test
- D** Fehling's test

Ans. (C)



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X react with $FeCl_3$

X contain C = 76.57% H = 6.43 % O = 17%

V.D. of X = 47

incorrect statement among following.

- A** X reacts with $NaHCO_3$
- B** X is more acidic than Y
- C** Y is salicylic acid
- D** Y is product of Kolbe's reaction

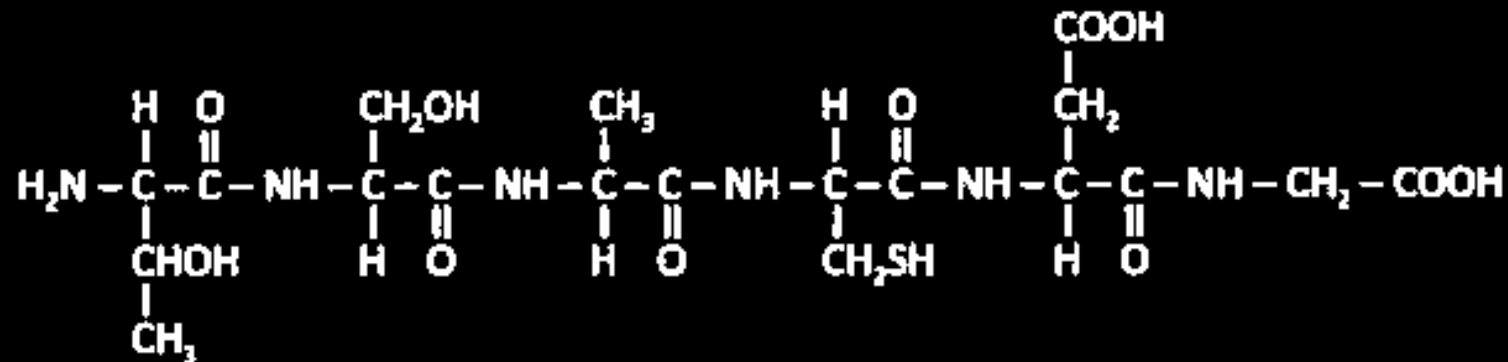
Ans. (B)



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#Q. Consider the following polypeptide :

In the given polypeptide, Y is the essential amino acid present. The correct representation of Y and the name of amino acids in the correct sequence in polypeptide is



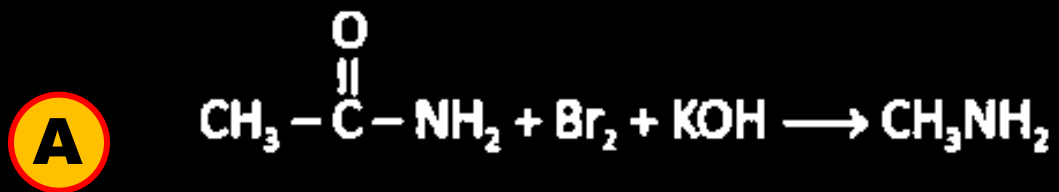
- A** Polypeptide (name of amino acid), Thr-Ser-Ala-Cys-Asp-Gly
- B** Polypeptide (name of amino acid), Ser-Ala-Thr-Cys-Asp-Gly
- C** Polypeptide (name of amino acid), Thr-Ser-Cys-Asp-Ala-Gly
- D** Polypeptide (name of amino acid), Thr-Ser-Ala-Asp-Cys-Gly

Ans. (A)



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#Q. Which of the following reaction is correctly matched with the product formed?



Ans. (A)



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#Q. Match the column-I showing compounds with column-II showing suitable test for that compound.

	Column-I		Column-II
(P)	$C_6H_5COCH_2CH_3$	a	Iodoform test
(Q)	C_6H_5CHO	b	2, 4-DNP test
(R)	$C_6H_5CH_2CHO$	c	Tollen test
(S)	$C_6H_5COCH_3$	d	Fehling test

P

Q

R

S

A

b

b, c

b, c, d

a, b

B

b

b, c, d

b, c, d

a, b, c

C

a, b

b, c, d

b, c, d

a, b, d

D

b

b, c, d

b, c

a, b

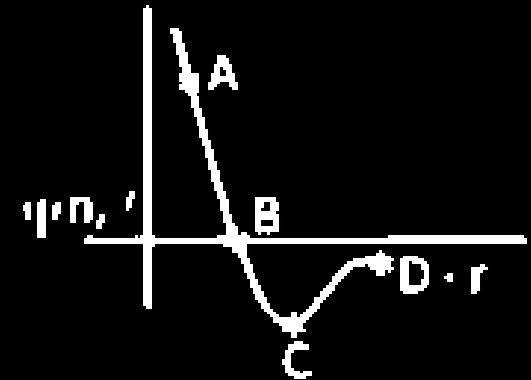
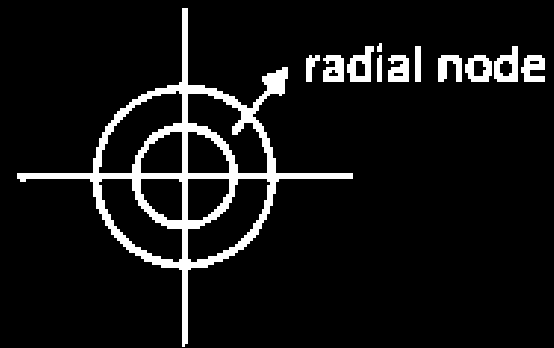
Ans. (A)



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#Q. Consider the diagram

Radical node is shown by



A A

B B

C C

D D

Ans. (B)



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#Q. In reversible isothermal process at 600 K, pressure changes from 0.5 MPa to 0.2 Mpa, then find ΔU , W and q . Given moles of gas in container is 1 mol. ($R = 8.3 \text{ JK}^{-1} \text{ mol}^{-1}$).

A

$$\begin{aligned}\Delta U &= 0 \\ q &= -4.587 \text{ kJ} \\ w &= +4.587 \text{ kJ}\end{aligned}$$

B

$$\begin{aligned}\Delta U &= 0 \\ q &= 0 \\ w &= 0\end{aligned}$$

C

$$\begin{aligned}\Delta U &= 0 \\ q &= 0 \\ w &= -4.587 \text{ kJ}\end{aligned}$$

D

$$\begin{aligned}\Delta U &= 0 \\ q &= +4.587 \text{ kJ} \\ w &= -4.587\end{aligned}$$

Ans. (D)



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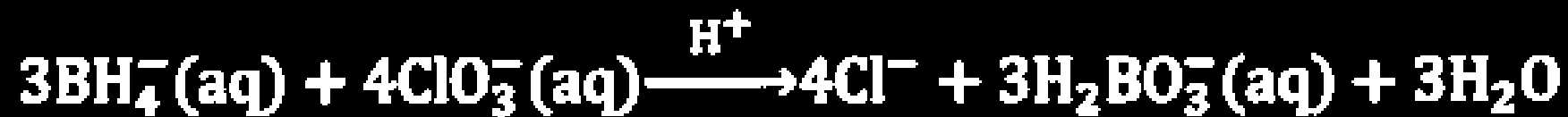
#Q. Calculate the sum of number of geometrical isomers of $[MClBrNO_2CN]$, number of optically inactive isomers of $[M(OX)_2Cl_2]$ and number of geometrical isomers of $[MCl_3Br_3]$

Ans. (15)



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#Q. Consider a galvanic cell reaction :



EMF of cell is given by,

$$E_{\text{cell}} = E_{\text{cell}}^{\circ} - \frac{RT}{nF} \ln[Q]$$

Here 'Q' is reaction quotient for the given cell reaction. Find 'n'.

Ans. (24)



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#Q. 500 ml of 1.2 M KI solution is reacting with 500 ml of 0.2 M KMnO_4 solution, and product iodine is further reacting with 0.1 M $\text{Na}_2\text{S}_2\text{O}_3$ solution. The volume of $\text{Na}_2\text{S}_2\text{O}_3$ solution required for complete reaction is _____ ml.

Ans. (5000)



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#Q. For equivalence point X ml of 0.02 M HCl is treated with 5 mL of 0.02 M of a weak base. The pK_b of weak base is 5.69 and the pH of the resulting solution is Y at half of the equivalence point. The value of $(x + y)$ is:

- A** 5
- B** 8.81
- C** 13.31
- D** 3.81

Ans. (C)