Resonance®
Educating for better tomorrow

JEE (MAIN) 2026

MEMORY BASED QUESTIONS & TEXT SOLUTION

SHIFT-2

DATE & DAY: 23 January 2026 & Friday

PAPER-1

Duration: 3 Hrs.
Time: 03:00 PM – 06:00 PM

SUBJECT: CHEMISTRY

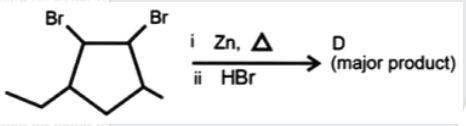
REGISTERED & CORPORATE OFFICE (CIN: U80302RJ2007PLC024029):
CG Tower, A-46 & 52, IPIA, Near City Mall, Jhalawar Road, Kota (Rajasthan) - 324005
0744-2777777 | 73400 10345 | contact@resonance.ac.in | www.resonance.ac.in | Follow Us: @ResonanceEdu | @Resonance_Edu

PART : CHEMISTRY

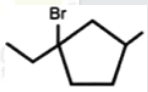
Atomic masses : [H = 1, D = 2, Li = 7, C = 12, N = 14, O = 16, F = 19, Na = 23, Mg = 24, Al = 27, Si = 28, P = 31, S = 32, Cl = 35.5,K = 39, Ca = 40, Cr = 52,Mn = 55, Fe = 56, Cu = 63.5,Zn = 65, As = 75, Br = 80, Ag = 108, I = 127,Ba = 137, Hg = 200, Pb = 207]

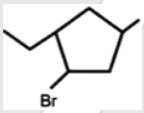
1. **Statement I :** Size of O^{2-} is smaller than F^-.
Statement II : Electronegativity of F is more than that of oxygen. In the light of above statements, choose the correct option.
(1) Both Statement -I and Statement -II are correct
(2) Both Statement -I and Statement -II are incorrect
(3) Statement -I is correct and Statement -II are incorrect
(4) Statement -I is incorrect and Statement -II are correct

Ans. (4)

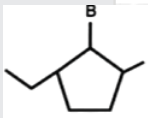
2. 

Identify (D)

(1) 

(2) 

(3) 

(4) 

Ans. (1)

3. For XeO_2F_2, select the correct statement(s).
(A) It shows see-saw shape.
(B) Number of lone pair(s) of e^-on Xe is 1.
(C) $\angle FXeF = 180°$ (approx.)
(D) It has tetrahedral shape.
(1) (A), (C), (D) Only (2) (A), (B) only (3) (A), (B), (C) only (4) (B), (C), (D) only

Ans. (3)

4. In estimation of chlorine by Carius method, 0.245 g organic compound gave 0.5453 g AgCl. Find percentage of chlorine in the organic compound

Ans. (54)

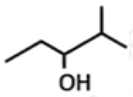
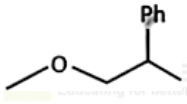
5. How many of the following complex(es) have unpaired electrons $[Ni(CO)_4]$, $[NiCl_4]^{2-}$, $[PtCl]_4]^{2-}$, $[Pt(CN)_4]^{2-}$

Ans. (1)

6. An ideal solution is formed by mixing 3 mole of A and 1 mole of B and the vapour pressure of solution is found to be 500 mm Hg . After further addition of 1 mole A, pressure of solution becomes 520 mm Hg . Find P_A°.

Ans. (600)

7. Which of the following molecule gives positive iodoform test

(1) CH_3CH_2OH (2)  (3) CH_3COOH (4) 

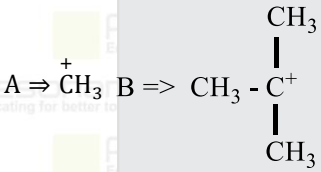
Ans. (1)

8. The oxidation state of chromium in the final product in the reaction between KI and acidified $K_2Cr_2O_7$ solution is

(1) +3 (2) +2 (3) +4 (4) + 6

Ans. (1)

9. Consider the following intermediates.



(1) B is more stable than A as it has 9α hydrogen

(2) A is more stable than B as it has 3α hydrogen

(3) B is more stable than A due to resonance

(4) A is more stable due to inductive effect

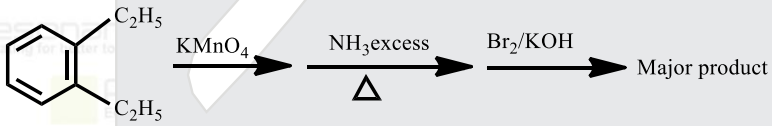
Ans. (1)

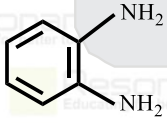
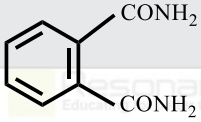
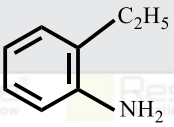
10. DNA is optically active due to the presence of

(1) Purine nitrogenous base (2) Phosphate molecule

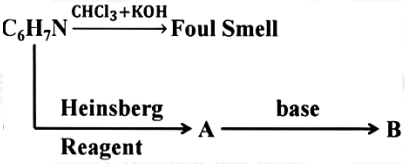
(3) D-pentose sugar (4) L-pentose sugar

Ans. (3)

11. 

(1)  (2)  (3)  (4) 

Ans. (1)

12. 

Number of hydrogen atom in B.

Ans. (10)

13. 250 cc of $x \times 10^{-3}$M acidified $K_2Cr_2O_7$ solution neutralises 750 cc of 0.6 M Mohr's salt. Value of x is

(1) 300 (2) 600 (3) 400 (4) 700

Ans. (1)

14. Two metals with work function in ratio $1:2$, are exposed with photons of energy 6 eV . If $KE_A : KE_B$ is 3 : 1, then ϕ_A and ϕ_B value (in eV) are

(1) 2,4 (2) 1.4,2.8 (3) 2.3,3.6 (4) 3.2,6.4

Ans. (1)

15. Consider the following reaction

$X_2(g) + Y_2(g) \rightleftharpoons 2Z(g)$

3 mol of X_2, 3 mol of Y_2 and 9 mol of Z are present at equilibrium and the volume of container is 1 L. If **10 mol of** Z is added at equilibrium. Calculate the number of moles of Z at new equilibrium

Ans. (15)

16. Electronegativity difference between a group 15 element & P is less than electronegativity difference between another group 15 element & P. Those group 15 elements respectively are-

(1) Bi, N (2) Sb, As (3) **Sb, Bi** (4) N, As

Ans. (1)

17. Consider the following reactions

$PbO_2 + Pb \rightleftharpoons 2PbO; \Delta G_1$

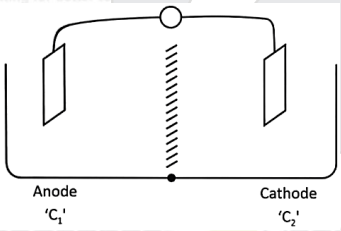
$SnO_2 + Sn \rightleftharpoons 2SnO; \Delta G_2$

Select the correct option?

(1) $\Delta G_1 > 0, \Delta G_2 > 0$ (2) $\Delta G_1 < 0, \Delta G_2 > 0$ (3) $\Delta G_1 < 0, \Delta G_2 < 0$ (4) $\Delta G_1 > 0, \Delta G_2 < 0$

Ans. (2)

18. Consider a galvanic cell, made up of two H_2-electrodes, Both compartments contain the same metal electrodes. If concentrations of H^+in anode and cathode are C_1 and C_2 respectively, then $E_{cell} > 0$ when, $(pH_2 = 1 \text{ atm})$



(1) $C_2 < C_1$ (2) $C_2 = C_1$ (3) $C_2 > C_1$ (4) $C_2 = 0.5C_1$

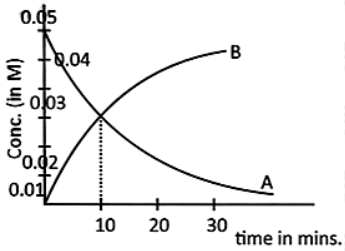
Ans. (3)

19. Which of the following are isobars ?

(1) $^{232}_{92}U$ & $^{238}_{92}U$ (2) $^{3}_{1}H$ & $^{2}_{1}H$ (3) $^{3}_{1}H$ & $^{3}_{1}He$ (4) $^{14}_{7}N$ & $^{15}_{7}N$

Ans. (3)

20. For a reaction $\underset{(g)}{A} \rightarrow \underset{(g)}{nB}$,a concentration vs time curve is,



find 10n.

Ans. (15)