

National Testing Agency

Question Paper Name :	Chemical Energetics Equilibria 30 Sep 2020 Shift 2
Subject Name :	Chemical Energetics Equilibria and Functional Group Organic Chemistry 1
Creation Date :	2020-09-30 18:37:35
Duration :	180
Number of Questions :	100
Total Marks :	100
Display Marks:	Yes

Chemical Energetics Equilibria and Functional Group Organic Chemistry 1

Group Number :	1
Group Id :	899514187
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

Chemical Energetics Equilibria and Functional Group Organic Chemistry 1

Section Id :	899514253
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100

Number of Questions to be attempted :	100
Section Marks :	100
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	899514298
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 89951416029 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Spontaneous adsorption of a gas on solid surface is an exothermic process
because:

- a) ΔH increases for system.
- b) ΔS increases for gas.
- c) ΔS decreases for gas.
- d) ΔG increases for gas.

Options :

89951462679. 1
89951462680. 2
89951462681. 3
89951462682. 4

Question Number : 2 Question Id : 89951416030 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

If the internal energy of the products (E_p) is greater than that of the reactants(E_r), heat is _____from the system. Such a reaction is called _____ reaction.

- (a) released ,endothermic
- (b) absorbed, exothermic
- (c) released ,exothermic
- (d) absorbed, endothermic

Options :

- 89951462683. 1
- 89951462684. 2
- 89951462685. 3
- 89951462686. 4

Question Number : 3 Question Id : 89951416031 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The value of $\log_{10}K$ for a reaction $A \rightarrow B$ is

(Given: $\Delta_r H_{298\text{ K}} = -54.07 \text{ kJ.mol}^{-1}$ and $R = 8.314 \text{ JK}^{-1}\text{mol}^{-1}$; $2.303 \times 8.314 \times 298 = 5705$)

- a) 5
- b) 10
- c) 95
- d) 100

Options :

- 89951462687. 1
- 89951462688. 2
- 89951462689. 3

89951462690. 4

Question Number : 4 Question Id : 89951416032 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the process $\text{H}_2\text{O} (\text{l}, 1 \text{ bar}, 373 \text{ K}) \rightarrow \text{H}_2\text{O} (\text{g}, 1 \text{ bar}, 373 \text{ K})$, the correct set of thermodynamic parameters is

- a) $\Delta G = 0, \Delta S = +\text{ve}$
- b) $\Delta G = 0, \Delta S = -\text{ve}$
- c) $\Delta G = +\text{ve}, \Delta S = 0$
- d) $\Delta G = -\text{ve}, \Delta S = 0$

Options :

- 89951462691. 1
- 89951462692. 2
- 89951462693. 3
- 89951462694. 4

Question Number : 5 Question Id : 89951416033 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The species which by definition has zero standard molar enthalpy of formation at 298 K is

- a) $\text{Br}_2(\text{g})$
- b) $\text{Cl}_2(\text{g})$
- c) $\text{H}_2\text{O}(\text{g})$
- d) $\text{CH}_4(\text{g})$

Options :

- 89951462695. 1

89951462696. 2

89951462697. 3

89951462698. 4

Question Number : 6 Question Id : 89951416034 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The enthalpy change for a reaction does not depend upon

- a) the physical states of reactants and products
- b) use of different reactants for the same product
- c) the nature of intermediate reaction steps
- d) the differences in initial or final temperatures of involved substances

Options :

89951462699. 1

89951462700. 2

89951462701. 3

89951462702. 4

Question Number : 7 Question Id : 89951416035 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The internal energy change when a system goes from state A to B is 40 kJ.mol⁻¹. If the system goes from A to B by a reversible path and returns to state A by an irreversible path, what would be the net change in internal energy?

- a) 40 kJ
- b) > 40 kJ
- c) < 40 kJ
- d) Zero

Options :

89951462703. 1
89951462704. 2
89951462705. 3
89951462706. 4

Question Number : 8 Question Id : 89951416036 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The enthalpies of combustion of carbon and carbon monoxide are -395.5 and 283 kJ.mol⁻¹, respectively. The enthalpy of formation of carbon monoxide per mole is:

- a) 110.5 kJ
- b) -110.5 kJ
- c) -676.5 kJ
- d) 676.5 kJ

Options :

89951462707. 1

89951462708. 2

89951462709. 3

89951462710. 4

Question Number : 9 Question Id : 89951416037 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Consider the reaction: $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$ carried out at constant temperature and pressure. If ΔH and ΔU are the enthalpy and internal energy changes for the reaction, which of the following expressions is true?

- a) $\Delta H = 0$
- b) $\Delta H = \Delta U$
- c) $\Delta H < \Delta U$
- d) $\Delta H > \Delta U$

Options :

89951462711. 1

89951462712. 2

89951462713. 3

89951462714. 4

Question Number : 10 Question Id : 89951416038 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For a spontaneous reaction, the ΔG , equilibrium constant (K) and E_{cell}^0 will be, respectively,

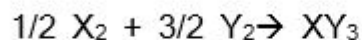
- a) -ve, >1, +ve
- b) +ve, >1, -ve
- c) -ve, < 1, -ve
- d) -ve, > 1, -ve

Options :

- 89951462715. 1
- 89951462716. 2
- 89951462717. 3
- 89951462718. 4

Question Number : 11 Question Id : 89951416039 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Standard entropies of X_2 , Y_2 , and XY_3 are 60, 40 and 50 $\text{J.K}^{-1}.\text{mol}^{-1}$, respectively. For the reaction:



$\Delta H = -30\text{kJ}$, to be at equilibrium, the temperature will be:

- a) 1250 K
- b) 500 K
- c) 750 K
- d) 1000 K

Options :

- 89951462719. 1
- 89951462720. 2

89951462721. 3

89951462722. 4

Question Number : 12 Question Id : 89951416040 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For a particular reversible reaction at temperature T , ΔH ΔS were found to be both positive. If T_e is the temperature at equilibrium, the reaction would be spontaneous when:

- a) $T = T_e$
- b) $T_e > T$
- c) $T > T_e$
- d) T_e is 5 times T

Options :

89951462723. 1

89951462724. 2

89951462725. 3

89951462726. 4

Question Number : 13 Question Id : 89951416041 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Heats of combustion of CH_4 , C_2H_4 , C_2H_6 are -890, -1411 and 1560 kJ.mol^{-1} , respectively. Which has the lowest value in kJ.g^{-1} ?

- a) CH_4
- b) C_2H_4
- c) C_2H_6
- d) All same

Options :

- 89951462727. 1
- 89951462728. 2
- 89951462729. 3
- 89951462730. 4

Question Number : 14 Question Id : 89951416042 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If the enthalpy change for the transition of liquid water to steam is 30 kJ.mol⁻¹ at 27 °C, the entropy change for the process would be (in J.mol⁻¹.K⁻¹)

- a) 100
- b) 10
- c) 1.0
- d) 0.1

Options :

- 89951462731. 1
- 89951462732. 2
- 89951462733. 3
- 89951462734. 4

Question Number : 15 Question Id : 89951416043 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The enthalpy of neutralization of HCl by NaOH is $-55.9 \text{ kJ.mol}^{-1}$. If the enthalpy of neutralization of HCN by NaOH is $-12.1 \text{ kJ.mol}^{-1}$, the enthalpy of dissociation of HCN is:

- a) -43.8 kJ
- b) 43.8 kJ
- c) 68 kJ
- d) -68 kJ

Options :

- 89951462735. 1
- 89951462736. 2
- 89951462737. 3
- 89951462738. 4

Question Number : 16 Question Id : 89951416044 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A system that can transfer matter and energy to and from its surrounding is called

- (a) A closed system
- (b) An isolated system
- (c) Open system
- (d) A homogeneous system

Options :

- 89951462739. 1
- 89951462740. 2
- 89951462741. 3
- 89951462742. 4

Question Number : 17 Question Id : 89951416045 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Heat of hydrogenation of ethane is x_1 , and that of benzene is x_2 . Hence resonance energy is

- a) $x_1 - x_2$
- b) $x_1 + x_2$
- c) $3x_1 - x_2$
- d) $x_1 - 3x_2$

Options :

- 89951462743. 1
- 89951462744. 2
- 89951462745. 3
- 89951462746. 4

Question Number : 18 Question Id : 89951416046 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The Kirchhoff's equation gives the effect of _____ on heat of reaction.

- a) pressure
- b) temperature
- c) volume
- d) molecularity

Options :

- 89951462747. 1
- 89951462748. 2
- 89951462749. 3

89951462750. 4

Question Number : 19 Question Id : 89951416047 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The bond energies of C=C, C-H, H-H and C=C are 198, 98, 103, 145 kcal, respectively. The enthalpy change of the reaction $\text{HC}=\text{CH} + \text{H}_2 \rightarrow \text{C}_2\text{H}_4$ is

- a) 48 kcal
- b) 96 kcal
- c) -40 kcal
- d) -152kcal

Options :

- 89951462751. 1
- 89951462752. 2
- 89951462753. 3
- 89951462754. 4

Question Number : 20 Question Id : 89951416048 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The dissociation energies of CH_4 and C_2H_6 are, respectively, 360 and 620 kcal.mol^{-1} . The bond energy of C=C is:

- a) 260 kcal.mol^{-1}
- b) 180 kcal.mol^{-1}
- c) 130 kcal.mol^{-1}
- d) 80 kcal.mol^{-1}

Options :

89951462755. 1

89951462756. 2

89951462757. 3

89951462758. 4

Question Number : 21 Question Id : 89951416049 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The heats of neutralization of four acids A, B, C, D are -13.7, -9.4, -11.2 and -12.4 kcal, respectively, when they are neutralized by a common base. The acidic character obeys the order:

a) $A > B > C > D$

b) $A > D > C > B$

c) $D > C > B > A$

d) $D > B > C > A$

Options :

89951462759. 1

89951462760. 2

89951462761. 3

89951462762. 4

Question Number : 22 Question Id : 89951416050 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The gas absorbs 100 J heat and is simultaneously compressed by a constant external pressure of 1.5 atm from 8 L to 2 L in volume. Hence,

ΔU will be

- a) -812 J
- b) 812 J
- c) 1011 J
- d) 911 J

Options :

89951462763. 1

89951462764. 2

89951462765. 3

89951462766. 4

Question Number : 23 Question Id : 89951416051 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

X g of ethanal was subjected to combustion in a bomb calorimeter and the heat produced is Y J. Then

- a) $\Delta E_{(\text{combustion})} = - X \text{ J}$
- b) $\Delta E_{(\text{combustion})} = - Y \text{ J}$
- c) $\Delta E_{(\text{combustion})} = \frac{-44Y}{x} \text{ J.mol}^{-1}$
- d) $\Delta H_{(\text{combustion})} = \frac{-44Y}{x} \text{ J.mol}^{-1}$

Options :

89951462767. 1

89951462768. 2

89951462769. 3

89951462770. 4

Question Number : 24 Question Id : 89951416052 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The enthalpy change for the following process represents enthalpy of



- a) fusion
- b) sublimation
- c) combustion
- d) vaporisation

Options :

89951462771. 1

89951462772. 2

89951462773. 3

89951462774. 4

Question Number : 25 Question Id : 89951416053 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In any natural process

- a) the entropy of universe remains constant.
- b) the entropy of universe tends towards maximum.
- c) the entropy of universe tends towards minimum.
- d) any of the above can happen.

Options :

89951462775. 1
89951462776. 2
89951462777. 3
89951462778. 4

Question Number : 26 Question Id : 89951416054 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Consider the reaction equilibrium, $2\text{SO}_2 (\text{g}) + \text{O}_2 (\text{g}) \rightleftharpoons 2\text{SO}_3 (\text{g})$ with $\Delta H^\circ = -198 \text{ kJ}$. On the basis of Le Chatelier's principle, the condition favourable for forward reaction is:

- a) lowering of temperature as well as pressure
- b) increasing temperature as well as pressure
- c) lowering the temperature and increasing the pressure
- d) any value of temperature and pressure

Options :

89951462779. 1
89951462780. 2
89951462781. 3
89951462782. 4

Question Number : 27 Question Id : 89951416055 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the reaction $\text{CO(g)} + \text{Cl}_2 \text{(g)} \rightleftharpoons \text{COCl}_2 \text{(g)}$ the ratio K_p/K_c is equal to

- a) $(1/RT)$
- b) 1.0
- c) $\sqrt{RT}$
- d) RT

Options :

- 89951462783. 1
- 89951462784. 2
- 89951462785. 3
- 89951462786. 4

Question Number : 28 Question Id : 89951416056 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following gives 'Common Ion Effect' in 'Inorganic Qualitative Analysis'?

- (a) $\text{Aq.HCl} + \text{H}_2\text{S}$
- (b) $\text{NH}_4\text{OH} + \text{NH}_4\text{Cl}$
- (c) $\text{NH}_4\text{OH} + (\text{NH}_4)_2\text{CO}_3$
- (d) All the selected options

Options :

- 89951462787. 1
- 89951462788. 2
- 89951462789. 3

89951462790. 4

Question Number : 29 Question Id : 89951416057 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a cell that utilizes the reaction $\text{Zn(s)} + 2\text{H}^+(\text{aq}) \rightarrow \text{Zn}^{2+}(\text{aq}) + \text{H}_2(\text{g})$,
addition of H_2SO_4 to cathode compartment, will

- a) lower the E and shift equilibrium to the left.
- b) increase the E and shift equilibrium to the left.
- c) increase the E and shift equilibrium to the right.
- d) lower E and shift equilibrium to the right.

Options :

89951462791. 1

89951462792. 2

89951462793. 3

89951462794. 4

Question Number : 30 Question Id : 89951416058 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The exothermic formation of CF_3 is represented by the equation:



Which of the following will increase the quantity of ClF_3 in an equilibrium mixture of Cl_2 , F_2 and ClF_3 ?

- a) Increasing the temperature
- b) Removing Cl_2
- c) Increasing the volume of the container
- d) Adding F_2

Options :

89951462795. 1

89951462796. 2

89951462797. 3

89951462798. 4

Question Number : 31 Question Id : 89951416059 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Phosphorus pentachloride dissociates as follows, in a closed reaction vessel,



If total pressure at equilibrium of the reaction mixture is p and degree of dissociation of PCl_5 is x , the partial pressure of PCl_3 will be

- a) $\left(\frac{x}{x+1}\right)p$
- b) $\left(\frac{2x}{1-x}\right)p$
- c) $\left(\frac{x}{x-1}\right)p$
- d) $\left(\frac{x}{1-x}\right)p$

Options :

- 89951462799. 1
- 89951462800. 2
- 89951462801. 3
- 89951462802. 4

Question Number : 32 Question Id : 89951416060 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A vessel at 100 K contains CO_2 with a pressure of 0.5 atm. Some of the CO_2 is converted into CO on the addition of graphite. If the total pressure at equilibrium is 0.8 atm, the value of K_p is

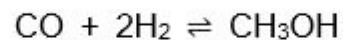
- a) 3 atm
- b) 0.3 atm
- c) 0.18 atm
- d) 1.8 atm

Options :

- 89951462803. 1
- 89951462804. 2
- 89951462805. 3
- 89951462806. 4

Question Number : 33 Question Id : 89951416061 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The partial pressures of CH₃OH, CO and H₂ in the equilibrium mixture for the following reaction at 427 °C are 2.0, 1.0 and 0.1 atm, respectively.



The value of K_p for the decomposition of CH₃OH into CO and H₂ is

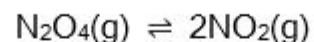
- a) $1 \times 10^2 \text{ atm}$
- b) $2 \times 10^2 \text{ atm}^{-1}$
- c) 50 atm^2
- d) $5 \times 10^{-3} \text{ atm}^2$

Options :

- 89951462807. 1
- 89951462808. 2
- 89951462809. 3
- 89951462810. 4

Question Number : 34 Question Id : 89951416062 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Consider the following equilibrium in a closed container.



At a fixed temperature, the volume of the reaction container is halved, for this change, which of the following statements holds true regarding the equilibrium constant (K) and degree of dissociation (α)

- a) neither K_p nor α changes
- b) both K and α changes
- c) K_p changes but α does not change
- d) K does not change but α changes

Options :

89951462811. 1

89951462812. 2

89951462813. 3

89951462814. 4

Question Number : 35 Question Id : 89951416063 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the reaction $2\text{NO}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons \text{N}_2\text{O}_5(\text{g})$. If the equilibrium constant is K_p , then the equilibrium constant for the reaction $2\text{N}_2\text{O}_5(\text{g}) \rightleftharpoons 4\text{NO}_2(\text{g}) + \text{O}_2(\text{g})$ would be

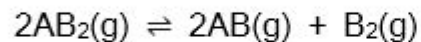
- a) K_p^2
- b) $\frac{2}{K_p}$
- c) $\frac{1}{K_p^2}$
- d) $\frac{1}{\sqrt{K_p}}$

Options :

89951462815. 1
89951462816. 2
89951462817. 3
89951462818. 4

Question Number : 36 Question Id : 89951416064 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

At the temperature T , a compound $AB_2(g)$ dissociates according to the following reaction with degree of dissociation α , which is small compared with unity.



The expression for K_p , in terms of α and the total pressure, p_T is

a) $\frac{p_T \alpha^3}{2}$

b) $\frac{p_T \alpha^3}{3}$

c) $\frac{p_T \alpha^3}{1}$

d) None of these

Options :

89951462819. 1
89951462820. 2
89951462821. 3
89951462822. 4

Question Number : 37 Question Id : 89951416065 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the reaction $2\text{SO}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{SO}_3(\text{g})$, the partial pressure of SO_2 , O_2 and SO_3 are 0.559, 0.101 and 0.331 atm, respectively. What would be the partial pressure O_2 gas, to get equal moles SO_2 and SO_3 .

- a) 0.188 atm
- b) 0.288 atm
- c) 0.388 atm
- d) 0.488 atm

Options :

- 89951462823. 1
- 89951462824. 2
- 89951462825. 3
- 89951462826. 4

Question Number : 38 Question Id : 89951416066 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Le Chatelier's principle is applicable to

- a) only homogeneous chemical reversible reaction.
- b) only heterogeneous chemical reversible reaction.
- c) only physical equilibria.
- d) all systems chemical or physical, in equilibrium.

Options :

- 89951462827. 1
- 89951462828. 2
- 89951462829. 3
- 89951462830. 4

Question Number : 39 Question Id : 89951416067 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When two reactants, A and B are mixed to give product C and D₃, the reaction quotient question at the initial stages of the reaction

- a) is zero.
- b) decrease with time.
- c) is independent of time.
- d) increase with time.

Options :

- 89951462831. 1
- 89951462832. 2
- 89951462833. 3
- 89951462834. 4

Question Number : 40 Question Id : 89951416068 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the reaction, $\text{CO(g)} + \text{H}_2\text{O(g)} \rightleftharpoons \text{CO}_2\text{(g)} + \text{H}_2\text{(g)}$, at a given temperature the equilibrium amount of $\text{CO}_2\text{(g)}$ can be increased by

- a) adding a suitable catalyst.
- b) adding an inert gas.
- c) decreasing the volume of the container.
- d) increasing the amount of CO(g) .

Options :

- 89951462835. 1
- 89951462836. 2

89951462837. 3

89951462838. 4

Question Number : 41 Question Id : 89951416069 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The equilibrium of the reaction $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$ will be shifted to right when:

- a) $K_p > 1$
- b) $Q < K_p$
- c) $Q = K_p$
- d) $Q < 2K_p$

Options :

89951462839. 1

89951462840. 2

89951462841. 3

89951462842. 4

Question Number : 42 Question Id : 89951416070 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In which of the following case the reaction is near to completion:

- a) $K = 10^6$
- b) $K = 10^3$
- c) $K = 10^{-6}$
- d) $K = 10^{-12}$

Options :

89951462843. 1

89951462844. 2

89951462845. 3

89951462846. 4

Question Number : 43 Question Id : 89951416071 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The best indicator for detection of end point in titration of a weak acid and a strong base is:

- a) methyl orange (3 to 4)
- b) methyl red (5 to 6)
- c) bromothymol blue (6 to 7.5)
- d) phenolphthalein (8 to 9.6)

Options :

89951462847. 1

89951462848. 2

89951462849. 3

89951462850. 4

Question Number : 44 Question Id : 89951416072 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

HX is a weak acid ($K_a = 10^{-5}$). It forms a salt NaX (0.1 M) on reaction with caustic soda. The degree of hydrolysis of NaX is

- a) 0.01%
- b) 0.0001%
- c) 0.1%
- d) 0.5%

Options :

89951462851. 1

89951462852. 2

89951462853. 3

89951462854. 4

Question Number : 45 Question Id : 89951416073 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The species present in solution when CO_2 is dissolved in water are

a) CO_2 , H_2CO_3 , HCO_3^- , CO_3^{2-}

b) H_2CO_3 , CO_3^{2-}

c) CO_3^{2-} , HCO_3^-

d) CO_2 , H_2CO_3

Options :

89951462855. 1

89951462856. 2

89951462857. 3

89951462858. 4

Question Number : 46 Question Id : 89951416074 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The solubility in water of a sparingly soluble salt AB_2 is $1.0 \times 10^{-5} \text{ mol.L}^{-1}$. Its solubility product number will be

- a) 4×10^{-15}
- b) 4×10^{-10}
- c) 1×10^{-15}
- d) 1×10^{-10}

Options :

89951462859. 1
89951462860. 2
89951462861. 3
89951462862. 4

Question Number : 47 Question Id : 89951416075 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following statements is not true?

- a) The conjugate base of $H_2PO_4^-$ is HPO_4^{2-}
- b) $pH + pOH = 14$ for all aqueous solutions
- c) The pH of $1 \times 10^{-8} \text{ M}$ is 8
- d) 96,500 coulombs of electricity when passed through $CuSO_4$ solution deposits 1 g equivalent of copper at the cathode

Options :

89951462863. 1
89951462864. 2
89951462865. 3
89951462866. 4

Question Number : 48 Question Id : 89951416076 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The molar solubility product of a sparingly soluble salt (in mol.L^{-1}) MX_4 is S. The corresponding solubility product is K_{sp} . S is given in terms of K_{sp} by the relation.

- a) $S = \left(\frac{K_{\text{sp}}}{128}\right)^{1/4}$
- b) $S = \left(\frac{K_{\text{sp}}}{256}\right)^{1/5}$
- c) $S = (256K_{\text{sp}})^{1/5}$
- d) $S = (256K_{\text{sp}})^{1/4}$

Options :

- 89951462867. 1
- 89951462868. 2
- 89951462869. 3
- 89951462870. 4

Question Number : 49 Question Id : 89951416077 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

The solubility product of a salt having general formula MX_2 , in water is 4×10^{-12} . The concentration of M^{2+} ions in the aqueous solution of the salt is

- a) $2.0 \times 10^{-6} \text{ M}$
- b) $1.0 \times 10^{-4} \text{ M}$
- c) $1.6 \times 10^{-4} \text{ M}$
- d) $4.0 \times 10^{-10} \text{ M}$

Options :

- 89951462871. 1
- 89951462872. 2
- 89951462873. 3
- 89951462874. 4

Question Number : 50 Question Id : 89951416078 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

2 mol of an ideal gas expanded isothermally and reversibly from 1 L to 10 L at 300 K. What is the enthalpy change?

- a) 4.98 kJ
- b) 11.47 kJ
- c) -11.47 kJ
- d) 0 kJ

Options :

- 89951462875. 1
- 89951462876. 2
- 89951462877. 3
- 89951462878. 4

Question Number : 51 Question Id : 89951416079 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Cyclopentadienyl anion is.....

- (a) Aromatic
- (b) Non-aromatic
- (c) Anti-aromatic
- (d) Aliphatic

Options :

89951462879. 1
89951462880. 2
89951462881. 3
89951462882. 4

Question Number : 52 Question Id : 89951416080 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following is ortho-para directing group?

- (a) -Br
- (b) -CN
- (c) -NO₂
- (d) -COOH

Options :

89951462883. 1
89951462884. 2
89951462885. 3
89951462886. 4

Question Number : 53 Question Id : 89951416081 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Benzene with two moles of Chlorine in presence of anhy. FeCl_3 gives.....

- (a) only o-Dichlorobenzene
- (b) only m-Dichlorobenzene
- (c) only p-Dichlorobenzene
- (d) Both o & p-Dichlorobenzene

Options :

89951462887. 1

89951462888. 2

89951462889. 3

89951462890. 4

Question Number : 54 Question Id : 89951416082 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Benzene sulphonic acid on fusion with NaOH gives.....

- (a) Benzene
- (b) Resorcinol
- (c) Phenol
- (d) Benzoic acid

Options :

89951462891. 1

89951462892. 2

89951462893. 3

89951462894. 4

Question Number : 55 Question Id : 89951416083 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of following is an aromatic compound?

- (a) Benzyl chloride
- (b) Ethyl chloride
- (c) Chlorohexane
- (d) Cyclohexane

Options :

89951462895. 1

89951462896. 2

89951462897. 3

89951462898. 4

**Question Number : 56 Question Id : 89951416084 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

p-Xylene is.....

- (a) 1,2-Dimethylbenzene
- (b) 1,3-Dimethylbenzene
- (c) 1,4-Dimethylbenzene
- (d) None of the selected options

Options :

89951462899. 1

89951462900. 2

89951462901. 3

89951462902. 4

**Question Number : 57 Question Id : 89951416085 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

The name of the product formed when m-Chlorotoluene is treated with one mole of chlorine in presence of light is.....

- (a) m-chlorobenzyl chloride
- (b) o-chlorobenzyl chloride
- (c) p-chlorobenzyl chloride
- (d) m-chlorobenzene alcohol

Options :

- 89951462903. 1
- 89951462904. 2
- 89951462905. 3
- 89951462906. 4

Question Number : 58 Question Id : 89951416086 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following react fastest with dilute aq. NaOH?

- (a) 4-Nitrochlorobenzene
- (b) 2,4-Dinitrochlorobenzene
- (c) 2,4,6-Trinitrochlorobenzene
- (d) o--Nitrochlorobenzene

Options :

- 89951462907. 1
- 89951462908. 2
- 89951462909. 3
- 89951462910. 4

Question Number : 59 Question Id : 89951416087 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following is used to prepare benzoic acid from Toluene

- (a) KMnO_4
- (b) Bromine water
- (c) LiAlH_4
- (d) Zn, dust

Options :

- 89951462911. 1
- 89951462912. 2
- 89951462913. 3
- 89951462914. 4

Question Number : 60 Question Id : 89951416088 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

o-Xylene on treatment with KMnO_4 gives?

- (a) Benzoic acid
- (b) Toluic acid
- (c) Isophthalic acid
- (d) Phthalic acid

Options :

- 89951462915. 1
- 89951462916. 2
- 89951462917. 3
- 89951462918. 4

Question Number : 61 Question Id : 89951416089 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a Huckel Number for aromaticity?

- (a) $(4n+1) \pi e$
- (b) $(4n+2) \pi e$
- (c) $12 \pi e$
- (d) $17 \pi e$

Options :

89951462919. 1
89951462920. 2
89951462921. 3
89951462922. 4

Question Number : 62 Question Id : 89951416090 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

-Cl group towards Electrophilic Aromatic Substitution reaction is.....

- (a) Activating and m-directing
- (b) Activating and o/p-directing
- (c) Deactivating and m-directing
- (d) Deactivating and o/p-directing

Options :

89951462923. 1
89951462924. 2
89951462925. 3
89951462926. 4

Question Number : 63 Question Id : 89951416091 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Phenylmagnesiumbromide on treatment with CO_2 followed by hydrolysis forms.....

- (a) Phenol
- (b) Benzoic acid
- (c) Benzaldehyde
- (d) Benzene

Options :

- 89951462927. 1
- 89951462928. 2
- 89951462929. 3
- 89951462930. 4

Question Number : 64 Question Id : 89951416092 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following is the most stable?

- (a) Ethyl carbocation
- (b) n-propyl carbocation
- (c) Isopropyl carbocation
- (d) Benzyl carbocation

Options :

- 89951462931. 1
- 89951462932. 2
- 89951462933. 3
- 89951462934. 4

Question Number : 65 Question Id : 89951416093 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following follows S_N1 mechanism when treated with aqueous NaOH?

- (a) n-Propyl chloride
- (b) Ethyl chloride
- (c) Isopropyl chloride
- (d) Benzyl chloride

Options :

- 89951462935. 1
- 89951462936. 2
- 89951462937. 3
- 89951462938. 4

Question Number : 66 Question Id : 89951416094 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Benzene does not react with.....

- (a) Aq. NaOH
- (b) Cl_2 / $FeCl_3$
- (c) CH_3Cl / $FeCl_3$
- (d) Br_2 / $FeBr_3$

Options :

- 89951462939. 1
- 89951462940. 2
- 89951462941. 3
- 89951462942. 4

Question Number : 67 Question Id : 89951416095 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

S_N1 reaction proceeds with _____

- (a) complete stereochemical inversion
- (b) racemisation
- (c) complete retention of configuration
- (d) None of the selected options

Options :

89951462943. 1
89951462944. 2
89951462945. 3
89951462946. 4

Question Number : 68 Question Id : 89951416096 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In which of the following solvent E₁ reaction will be faster?

- (a) Benzene
- (b) Tetrahydrofuran
- (c) Ethanol
- (d) DMSO

Options :

89951462947. 1
89951462948. 2
89951462949. 3
89951462950. 4

Question Number : 69 Question Id : 89951416097 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which one of the following doesn't give 2,4-Dihalotoluene from toluene?

- (a) $\text{Br}_2 / \text{FeBr}_3$
- (b) $\text{Cl}_2 / h\nu$
- (c) $\text{Cl}_2 / \text{FeCl}_3$
- (d) All the selected options

Options :

- 89951462951. 1
- 89951462952. 2
- 89951462953. 3
- 89951462954. 4

Question Number : 70 Question Id : 89951416098 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which of following is formed in E_1 reaction?

- (a) Free radical
- (b) Transition state
- (c) Carbocation
- (d) Benzyne

Options :

- 89951462955. 1
- 89951462956. 2
- 89951462957. 3
- 89951462958. 4

Question Number : 71 Question Id : 89951416099 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Which of following intermediate is formed in halogenation of Alkane?

- (a) Carbocation
- (b) Free radical
- (c) Carbanion
- (d) Nitrene

Options :

- 89951462959. 1
- 89951462960. 2
- 89951462961. 3
- 89951462962. 4

Question Number : 72 Question Id : 89951416100 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Nucleophilic substitution of aryl halide is

- (a) easier than alkyl halide
- (b) difficult than alkyl halide
- (c) as similar as alkyl halide
- (d) not possible

Options :

- 89951462963. 1
- 89951462964. 2
- 89951462965. 3
- 89951462966. 4

Question Number : 73 Question Id : 89951416101 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The reaction intermediate formed in Elimination-Addition reaction of aryl halide is

- (a) Carbocation
- (b) Nitrene
- (c) Benzyne
- (d) Carbene

Options :

- 89951462967. 1
- 89951462968. 2
- 89951462969. 3
- 89951462970. 4

Question Number : 74 Question Id : 89951416102 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following compound is Neopentyl alcohol?

- (a) 2-Methylbutan-1-ol
- (b) 2,2-Dimethylpropan-1-ol
- (c) 2-Methylbutan-2-ol
- (d) t-Butyl alcohol

Options :

- 89951462971. 1
- 89951462972. 2
- 89951462973. 3
- 89951462974. 4

Question Number : 75 Question Id : 89951416103 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following can give t-butyl alcohol with Grignard reagent?

- (a) Ketone
- (b) Aldehyde
- (c) Alcohol
- (d) Alkane

Options :

- 89951462975. 1
- 89951462976. 2
- 89951462977. 3
- 89951462978. 4

Question Number : 76 Question Id : 89951416104 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

t-Butyl chloride on heating with ethanolic KOH gives.....

- (a) t-Butyl alcohol
- (b) 2-Methylbut-1-ene
- (c) n-Butane
- (d) Isobutene

Options :

- 89951462979. 1
- 89951462980. 2
- 89951462981. 3
- 89951462982. 4

Question Number : 77 Question Id : 89951416105 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following is used to prepare alcohols from Alkyl halide?

- (a) Grignard reagents
- (b) Aq. NaOH
- (c) LiAlH_4
- (d) KMnO_4

Options :

89951462983. 1

89951462984. 2

89951462985. 3

89951462986. 4

Question Number : 78 Question Id : 89951416106 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is used to prepare Ketone from 2° alcohol?

- (a) H_2 / Ni
- (b) Sn / HCl
- (c) LiAlH_4
- (d) CrO_3 /Pyridine-HCl

Options :

89951462987. 1

89951462988. 2

89951462989. 3

89951462990. 4

Question Number : 79 Question Id : 89951416107 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Soap is chemically sodium salt of.....

- (a) Glycerol
- (b) Fatty acids
- (c) Benzoic acid
- (d) Methyl alcohol

Options :

89951462991. 1
89951462992. 2
89951462993. 3
89951462994. 4

**Question Number : 80 Question Id : 89951416108 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

18-Crown-6 has.....

- (a) 24 Oxygen atoms
- (b) 18 Oxygen atoms
- (c) 12 Oxygen atoms
- (d) 06 Oxygen atoms

Options :

89951462995. 1
89951462996. 2
89951462997. 3
89951462998. 4

**Question Number : 81 Question Id : 89951416109 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Which of following is used to prepare primary alcohols commercially from alkenes?

- (a) Grignard reagents
- (b) CO + Co catalyst
- (c) LiAlH_4
- (d) None of the selected options

Options :

- 89951462999. 1
- 89951463000. 2
- 89951463001. 3
- 89951463002. 4

Question Number : 82 Question Id : 89951416110 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Alcohols on treatment with Na metal evolves _____ gas?

- (a) CO_2
- (b) N_2
- (c) O_2
- (d) H_2

Options :

- 89951463003. 1
- 89951463004. 2
- 89951463005. 3
- 89951463006. 4

Question Number : 83 Question Id : 89951416111 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Fries rearrangement of phenyl acetate takes place in presence of.....

- (a) Lewis acid
- (b) Lewis base
- (c) Both the options (a) & (b)
- (d) None of the selected options

Options :

89951463007. 1

89951463008. 2

89951463009. 3

89951463010. 4

Question Number : 84 Question Id : 89951416112 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Hybridisation and Geometry of Carbonyl carbon in Acetone

is _____ respectively.

- (a) sp^2 and Planar
- (b) sp^3 and planar
- (c) sp and Tetrahedral
- (d) sp^2 and Linear

Options :

89951463011. 1

89951463012. 2

89951463013. 3

89951463014. 4

Question Number : 85 Question Id : 89951416113 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Benzaldehyde with aqueous bromine gives.....

- (a) Benzoic acid
- (b) Benzene
- (c) Benzyl alcohol
- (d) Toluene

Options :

- 89951463015. 1
- 89951463016. 2
- 89951463017. 3
- 89951463018. 4

Question Number : 86 Question Id : 89951416114 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Phenol on treatment with acetyl chloride undergoes.....

- (a) Ester formation
- (b) Ether formation
- (c) Hydrolysis
- (d) Elimination

Options :

- 89951463019. 1
- 89951463020. 2
- 89951463021. 3
- 89951463022. 4

Question Number : 87 Question Id : 89951416115 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is used to prepare Salicylic acid from phenol?

- (a) Dow Process
- (b) Reimer-Tiemann reaction
- (c) Kolbe Process
- (d) Williamson Synthesis

Options :

- 89951463023. 1
- 89951463024. 2
- 89951463025. 3
- 89951463026. 4

Question Number : 88 Question Id : 89951416116 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following does not show acidic property in water?

- (a) Acetanilide
- (b) Phenol
- (c) α -Naphthol
- (d) β -Naphthol

Options :

- 89951463027. 1
- 89951463028. 2
- 89951463029. 3
- 89951463030. 4

Question Number : 89 Question Id : 89951416117 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The intermediate formed during Reimer-Tiemann reaction of phenol is

- (a) Dichlorocarbene
- (b) Dichlorocarocation
- (c) Dichlorocarbanion
- (d) Dichloromethyl free radical

Options :

89951463031. 1

89951463032. 2

89951463033. 3

89951463034. 4

Question Number : 90 Question Id : 89951416118 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

m-Hydroxy anisole on treatment with Zn dust gives

- (a) Anisole
- (b) Phenitole
- (c) Phenol
- (d) Aniline

Options :

89951463035. 1

89951463036. 2

89951463037. 3

89951463038. 4

Question Number : 91 Question Id : 89951416119 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Gattermann Aldehyde synthesis does not involve

- (a) HCN
- (b) CO
- (c) AlCl_3
- (d) HCl

Options :

89951463039. 1

89951463040. 2

89951463041. 3

89951463042. 4

Question Number : 92 Question Id : 89951416120 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Chlorobenzene on treatment with LiNH_2 in Liq. NH_3 followed by

Acetylation gives.....

- (a) Acetanilide
- (b) Acetone
- (c) Acetophenone
- (d) Aniline

Options :

89951463043. 1

89951463044. 2

89951463045. 3

89951463046. 4

Question Number : 93 Question Id : 89951416121 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A compound 'M'(C_8H_{10}) on treatment with Bromine in presence of light gives chief product 'N'(C_8H_9Br). 'N' on heating with dilute aq.NaOH yields compound 'O'($C_8H_{10}O$). Then M,N and O are.....respectively.

- (a) Styrene, Bromobenzene and Phenol
- (b) Ethylbenzene, 2-Bromo-1-Phenylethane and 2-Phenylethanol
- (c) Ethylbenzene, 1-Bromo-2-Phenylethane and 1-Phenylethanol
- (d) Ethylbenzene, 1-Bromo-1-Phenylethane and 1-Phenylethanol

Options :

- 89951463047. 1
- 89951463048. 2
- 89951463049. 3
- 89951463050. 4

Question Number : 94 Question Id : 89951416122 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Chlorobenzene on treatment with Aq. NaOH at high temperature and pressure followed by acidification gives compound 'A'(C_6H_6O). Then 'A' on treatment with bromine water gives.....

- (a) o-Bromophenol
- (b) p-Bromophenol
- (c) 2,4-Dibromophenol
- (d) 2,4,6-Tribromophenol

Options :

- 89951463051. 1
- 89951463052. 2
- 89951463053. 3
- 89951463054. 4

Question Number : 95 Question Id : 89951416123 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Anthracene on treatment with concentrated HNO_3 gives.....

- (a) 9-Nitroanthracene
- (b) 10-Nitroanthracene
- (c) 9,10-Dinitroanthracene
- (d) 9,10-Anthraquinone

Options :

- 89951463055. 1
- 89951463056. 2
- 89951463057. 3
- 89951463058. 4

Question Number : 96 Question Id : 89951416124 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is used in pain-balm as analgesic.

- (a) Methyl salicylate
- (b) Penicillin
- (c) Chlorobenzene
- (d) Cyclohexane

Options :

- 89951463059. 1
- 89951463060. 2
- 89951463061. 3
- 89951463062. 4

Question Number : 97 Question Id : 89951416125 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Paracetamol is andrug.

- (a) Antibiotic
- (b) Analgesic
- (c) Antimalarial
- (d) Antifungal

Options :

89951463063. 1
89951463064. 2
89951463065. 3
89951463066. 4

**Question Number : 98 Question Id : 89951416126 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Which of following does not give positive Azo-dye test?

- (a) Phenol
- (b) Aniline
- (c) 2-Naphthol
- (d) 1-Aminohexane

Options :

89951463067. 1
89951463068. 2
89951463069. 3
89951463070. 4

**Question Number : 99 Question Id : 89951416127 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Which of the following gives Iodoform with NaOH and Iodine?

- (a) Phenol
- (b) Aniline
- (c) Benzaldehyde
- (d) Acetophenone

Options :

- 89951463071. 1
- 89951463072. 2
- 89951463073. 3
- 89951463074. 4

Question Number : 100 Question Id : 89951416128 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of following has highest boiling point?

- (a) Phenol
- (b) n-Butyl alcohol
- (c) Neopentyl alcohol
- (d) Acetone

Options :

- 89951463075. 1
- 89951463076. 2
- 89951463077. 3
- 89951463078. 4