6.CHEMICAL DISPALCEMENT& DOUBLE DISPLACEMENT REACTIONS

SOLUTIONS

TEACHING TASK

JEE MAIN LEVEL

1. A displacement reaction will occur when...

A)a more reactive metal displaces a less reactive metal from its compound.
B)A less reactive metal displaces a more reactive metal from its compound
C)Displacement only occurs when two of the same metals are reacted
D)Displacement reactions will only occur in metals above iron in the reactivity series

Answer : A

Solution: Displacement reactions occur when a more reactive metal replaces a less reactive one in a compound

2. Calcium + zinc nitrate goes to

A)Calcium + zinc nitrate **B)Zinc + calcium nitrate**
C)there will be no reaction **D)Zinc + calcium chloride**

Answer: B

Solution:Calcium is more reactive than zinc, so it displaces zinc from zinc nitrate, forming calcium nitrate and zinc.

3. In the following chemical reaction, what product is represented by X?

$AlCl_3$ + NaOH $\rightarrow$ X + NaCl

A)Al_3OH **B)It cannot be determined.** **C)$Al(OH)_3$** **D)AlOH**

Answer:C

Solution:(The reaction is a double displacement, forming aluminum hydroxide and sodium chloride: $AlCl_3 + 3NaOH \rightarrow Al(OH)_3 + 3NaCl$

4. Decreasing order of reactivity of metals:

A)Na>Cu>Ag **B)Cu>Na>Zn** **C)Na>K>Al** **D)K>Au>Al**

Answer:A

Solution:Sodium (Na) is highly reactive, while copper (Cu) and silver (Ag) are less reactive.

5. Which of the following is an example of chemical displacement?

(A) $Zn + 2HCl \rightarrow ZnCl_2 + H_2$- **(B) $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$**
(C) $Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$- **(D) All**

Answer:D

Solution:All reactions involve displacement: (A) Zn displaces H from HCl, (B) Zn displaces Cu from $CuSO_4$, (C) Zn displaces H from H_2SO_4.

6. When dilute sulphuric acid (H_2SO_4) reacts with ferrous sulphide (FeS), hydrogen sulphide (H_2S) gas is produced; this is an example of

(A) Chemical decomposition **(B) chemical double decomposition**

(C) Chemical displacement **(D) chemical combination**

Answer:B

Solution:The reaction $H_2SO_4 + FeS \rightarrow FeSO_4 + H_2S$ involves exchange of ions, characteristic of double decomposition.

7. $Mg + 2AgNO_3 \rightarrow Mg(NO_3)_2 + 2Ag$

(A) Decomposition reaction **(B) Double Decomposition Reaction**

(C) Displacement reaction **(D) None of these**

Answer:C

Solution:Mg displaces Ag from $AgNO_3$, forming $Mg(NO_3)_2$ and Ag

8. $BaCl_2 + Na_2SO_4 \rightarrow BaSO_4^{-} + 2NaCl$ is

(A) Precipitation reaction **(B) Decomposition Reaction**

(C) Displacement Reaction **(D) Combination Reaction**

Answer:A

Solution:$BaSO_4$ forms as an insoluble precipitate, making this a precipitation reaction

9. $Zn + CuSO_4 \rightarrow$ _____ + Cu is example of

(A) $2ZnSO_4$, displacement **(B) $Zn(SO_4)_2$, decomposition**

(C) $ZnSO_4$, double decomposition **(D) $ZnSO_4$, displacement**

Answer:D

Solution:Zn displaces Cu from $CuSO_4$, forming $ZnSO_4$—a classic displacement reaction.

10. Reaction of sodium hydroxide with hydrochloric acid results in the formation of sodium chloride and water follows :

(A) Displacement reaction **(B) Neutralisation reaction**

(C) Both a & b **(D) Decomposition reaction**

Answer:B

Solution:$NaOH + HCl \rightarrow NaCl + H_2O$ is an acid-base neutralization reaction.

11. $2KI + Br_2 \rightarrow 2KBr + I_2$. is an example of

(A) Displacement (B) Combination (C) Both A & B (D) None of these

Answer:A

Solution:Br_2 displaces I_2 from KI, forming KBr and I_2—a halogen displacement reaction.

12. $Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$ - is a

(A) chemical combination **(B) Chemical decomposition**

(C) chemical displacement **(D) none**

Answer:C

Solution:Zn displaces hydrogen from H_2SO_4, forming $ZnSO_4$ and H_2 gas

JEE ADVANCED LEVEL

MULTI CORRECT ANSWER TYPE:

13. $NaOH+HCl \rightarrow NaCl+ H_2O$ is an example for

A)Displacement **B)Decomposition**

C)Neutralisation **D)Double displacement reaction.**

Answer:C,D

Solution:Neutralisation (C): The reaction involves an acid (HCl) and a base (NaOH) forming salt (NaCl) and water (H_2O).

Double displacement (D): The ions (Na^+ and H^+) exchange places between the reactants (NaOH and HCl).

14. Which of the following is/are precipitation reactions?

A) $NaC\ell(aq) + AgNO_3(aq) \longrightarrow AgC\ell(s) + NaNO_3(aq)$

B) $CuSO_4(aq) + 2NaOH(aq) \longrightarrow Cu(OH)_2(s) + Na_2SO_4(aq)$

C) $\underset{\text{(Compound)}}{2A\ell(OH)_3(s)} \xrightarrow{\Delta} \underset{\text{(Compound)}}{A\ell_2O_3(s)} + \underset{\text{(Compound)}}{3H_2O(g)}$

D) $\underset{\text{(Compound)}}{2Pb(NO_3)_2(s)} \xrightarrow{\Delta} \underset{\text{(Compound)}}{2PbO(s)} + \underset{\text{(Compound)}}{4NO_2(g)} + \underset{\text{(Element)}}{O_2(g)}$

Answer:A,B

Solution:Precipitation reactions involve the formation of an insoluble solid (precipitate) when two aqueous solutions are mixed.

Option A: AgCl (silver chloride) is a white precipitate.

Option B: $Cu(OH)_2$ (copper hydroxide) is a blue precipitate.

Option C: Decomposition (solid $Al(OH)_3$ breaks down into Al_2O_3 and H_2O).

Option D: Decomposition (solid Pb(NO3)2 breaks down into PbO, NO_2, and O_2).

STATEMENT TYPE:

A) Statement-I, is True, Statement - II is True; Statement - II is a correct explanation for Statement-I

B) Statement - I is True, Statement is True; Statement -II is NOT a correct explanation for Statement - I

C) Statement - I is True, Statement - II , is False

D) Statement - I is False, Statement - II is True

15. Statement-I: $Fe+CuSO_4(aq) \rightarrow FeSO_4(aq) + Cu$ is displacement reaction.

Statement-II: More reactive element displaces less reactive element from its aqueous salt solution is called Displacement reaction.

Answer:A

Solution:Statement-I is true because iron (Fe) displaces copper (Cu) from $CuSO_4$, forming $FeSO_4$ and Cu. This is a classic displacement reaction.

Statement-II is true and correctly explains Statement-I. Iron is more reactive than copper (as per the reactivity series), so it displaces Cu from its salt solution.

16. Statement-I: Acid base reactions are double displacement reaction which are also called as neutralization reactions.
Statement-II: Hydrogen ion (H^+) from acid and hydroxyl ions (OH^-) from base combine to form salt and water.

Answer:B

Solution:Statement-I is true because acid-base reactions (e.g., HCl + NaOH $\rightarrow$ NaCl + H_2O) involve double displacement (ion exchange) and are termed neutralization reactions.

Statement-II is true (H^++ OH^- $\rightarrow$ H_2O), but it does not explain why acid-base reactions are double displacement. The double displacement aspect arises from the exchange of ions (e.g., Na^+ and H^+ swapping places), not just H^+ and OH^- combination.

COMPREHENSION TYPE :

Paragraph-I:

A more reactive element displaces less reactive element from its aqueous salt solution is called displacement reaction.

17. $AgNO_3$+NaCl$\rightarrow$ X + $NaNO_3$. Identify X

A)NaN B)AgCl C) AgN D)NaO

Answer:B

Solution:$AgNO_3$+NaCl$\rightarrow$ AgCl $\downarrow$ + $NaNO_3$

18. A teacher performed the following experiment. He took a strip of lead metal and placed in a solution of copper chloride. Which of the following is the correct equation for the above reaction?

A) Cu_2Cl + Pb $\longrightarrow$ $PbCl_2$ + 2Cu

B) $CuSO_4$ + Pb $\longrightarrow$ $PbSO_4$ + Cu

C) $CuCl_2$ + Pb $\longrightarrow$ $PbCl_2$ + Cu

D) Cu_2Cl_2 + 2Pb $\longrightarrow$ $PbCl_2$ + Cu

Answer:C

Solution:Lead (Pb) is more reactive than copper (Cu) in the reactivity series.
Thus, Pb displaces Cu from $CuCl_2$.
Balanced Equation:$CuCl_2$ + Pb $\longrightarrow$ $PbCl_2$ + Cu

Paragraph -II:

The reactions where chemical change takes place is called chemical reaction. There are 4 types of chemical reactions. A chemical reaction, in which two compounds in their aqueous solution react by exchanging their radicals, is called chemical double-decomposition or chemical double-displacement.

19. $CuSO_4$ + Zn → X +Cu . What is x?

A)CuS B)ZnS C)$ZnSO_4$ D)$ZnSO_3$.

Answer: C

Solution:This is a displacement reaction where zinc (Zn), being more reactive than copper (Cu), displaces Cu from $CuSO_4$.

The balanced equation is: $CuSO_4 + Zn \rightarrow ZnSO_4 + Cu$

20. i) $AgNO_3(aq) + NaCl(aq) \rightarrow P + Q$ ii) $PCl_5(s) \underset{\text{Cool}}{\overset{\text{Heat}}{\rightleftharpoons}} R + S$

	P	*Q*	*R*	*S*
A)	**AgCl**	**$NaNO_3$**	**PCl_3**	**Cl_2**
B)	**$NaNO_3$**	**PCl_3**	**Cl_2**	**AgCl**
C)	**AgCl**	**PCl_3**	**$NaNO_3$**	**Cl_2**
D)	**AgCl**	**PCl_3**	**Cl_2**	**$NaNO_3$**

Answer: A

Solution:Part (i) Reaction:

This is a double displacement (precipitation) reaction:

$AgNO_3 + NaCl \rightarrow AgCl \downarrow + NaNO_3$

P = AgCl (white precipitate), Q = $NaNO_3$ (sodium nitrate, soluble).

Part (ii) Matching:

The options are unrelated to the reaction but test knowledge of common compounds:

R: PCl_3 (phosphorus trichloride) and S: Cl_2 (chlorine gas) are standalone chemicals.

Only Option A correctly identifies P (AgCl) and Q ($NaNO_3$) from the reaction.

INTEGER TYPE:

21. Among Na, Ag, Zn, Pt how many are more reactive than iron?

Answer: 2

Solution:Reactivity Series: K > Na > Ca > Mg > Al > Zn > Fe > Sn > Pb > Cu > Ag > Pt

Comparison with Iron (Fe):

Na (Sodium): More reactive than Fe.

Zn (Zinc): More reactive than Fe.

Ag (Silver) and Pt (Platinum): Less reactive than Fe.

Conclusion: Only 2 metals (Na and Zn) are more reactive than iron.

22. Among K, Zn, Al, Cu,Sn how many metals cannot displace magnesium from magnesium sulphate?

Answer: 4

Solution: To displace magnesium (Mg) from $MgSO_4$, a metal must be more reactive than Mg.

From the reactivity series K > Na > Ca > Mg > Al > Zn > Fe > Sn > Pb > Cu > Ag > Pt

K → More reactive → Can displace

Zn →Less reactive → Cannot displace

Al →Less reactive → Cannot displace

Cu →Less reactive → Cannot displace

Sn $\rightarrow$Less reactive $\rightarrow$ Cannot displace

MATRIX MATCH TYPE:

23. COLUMN -I **COLUMN-II**

A $CuSO_4$+Fe **1. combination**

B. C+$O_2 \rightarrow CO_2$ **2. Neutralisation**

C.NaOH +HCl$\rightarrow$NaCl + H_2O **3. Precipitation reaction**

D. $AgNO_3$+ NaCl$\rightarrow$$NaNO_3$+ AgCl **4. $FeSO_4$+ Cu.**

Answer: A-4,B-1,C-2,D-3

Solution:

A. $CuSO_4$+Fe	4. $FeSO_4$+ Cu.
B. C+$O_2 \rightarrow CO_2$	1. combination
C.NaOH +HCl$\rightarrow$NaCl + H_2O	2. Neutralisation
D. $AgNO_3$+ NaCl$\rightarrow$$NaNO_3$+ AgCl	3. Precipitation reaction

LEARNER'S TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

1. When a more reactive element displaces less reactive element from its aqueous salt solution is called...

A)Combination reaction **B)Decomposition reaction**

C) Displacement reaction **D) Double displacement reaction**

Answer: C

Solution: A more reactive element displaces a less reactive one from its compound (e.g., Zn + $CuSO_4$ $\rightarrow$ $ZnSO_4$ + Cu)

2. When two chemical compounds in their aqueous state exchange ions such that one of the product is precipitate is called...

A) Precipitation reaction **B)Decomposition reaction**

C) Displacement reaction **D) Neutralisation reaction**

Answer: A

Solution: Double displacement where ions exchange to form an insoluble solid (precipitate), e.g., $AgNO_3$ + NaCl $\rightarrow$ AgCl$\downarrow$ + $NaNO_3$.

3. Among the following types of chemical reactions, application of metal reactivity series is involved with which reaction?

A)Combination reaction **B)Decomposition reaction**

C) Displacement reaction **D) Double displacement reaction.**

Answer: C

Solution: The reactivity series predicts if a metal can displace another in a compound (e.g., Mg + $ZnSO_4$ $\rightarrow$ $MgSO_4$ + Zn).

4. $AgNO_3$ + NaCl $\rightarrow$ AgCl + $NaNO_3$ in the following equation the precipitate formed is

A)$AgNO_3$ **B)NaCl** **C) AgCl** **D) $NaNO_3$**

Answer: C

Solution: AgCl (silver chloride) is the white precipitate formed in this double displacement reaction.

5. Which is the least reactive element among the following?

A)Zn B)Pb C)Fe D)Cu

Answer: D

Solution: Reactivity order: Zn > Fe > Pb > Cu. Copper (Cu) is the least reactive among the options.

6. $Zn + 2HCl \rightarrow H_2 + ZnCl_2$ is ..... reaction.

A)Combination B)Decomposition C)Displacement D)Double displacement.

Answer: C

Solution: Zn displaces H from HCl, forming H_2 gas and $ZnCl_2$.

7. Which is the least reactive element among the following in comaprision with Hydrogen?

A)Cu B)Ag C)Pt D)All the above

Answer: D

Solution: Cu, Ag, and Pt are below hydrogen (H) in the reactivity series, making them less reactive than H.

8. After the completion of a double displacement reaction,one of the products is usually

A) a solid precipitate, B) a gas

C) a molecular compound such as water D) All the above

Answer: D

Solution: Double displacement can produce:

Precipitate (e.g., AgCl),

Gas (e.g., CO_2 from $Na_2CO_3 + HCl$),

Water (e.g., in neutralization: $HCl + NaOH \rightarrow NaCl + H_2O$).

9. when the cations from one of the reactants combine with the anions from the other reactant to form an insoluble ionic compound. It is called

A)Combination reaction B)Decomposition reaction

C) Displacement reaction D)Precipitation reaction.

Answer: D

Solution: Formation of an insoluble ionic compound (e.g., $BaSO_4$ from $BaCl_2 + Na_2SO_4$).

10. A brilliant yellow precipitate is formed in the following reaction

A)$Cl_2(aq) + 2NaBr(aq) \rightarrow 2NaCl(aq) + Br_2(aq)$

B)$2KI(aq)+Pb(NO_3)_2(aq) \rightarrow 2KNO_3(aq)+PbI_2(s)\downarrow$

C) $Na_2S(aq)+2HCl(aq) \rightarrow 2NaCl(aq)+H_2S(g)$

D)$HCl(aq)+NaOH(aq) \rightarrow NaCl(aq)+H_2O(l)$

Answer: B

Solution: PbI_2 (lead iodide) is a bright yellow precipitate.

JEE MAINS LEVEL QUESTIONS

11. Which one of the following would the following result in a displacement reaction?

A)Iron with magnesium chloride **B)magnesium with iron chloride**
C)Iron with Zinc Sulphate **D)Gold with silver nitrate**

Answer:B

Solution: Displacement Reaction occurs when a more reactive metal displaces a less reactive metal from its compound.

Reactivity Series: Mg > Fe > Zn > Au

Option B: $Mg + FeCl_2 \rightarrow MgCl_2 + Fe$ (Mg is more reactive than Fe)

12. What is made when magnesium reacts with hydrochloric acid?

A)Magnesium nitrate and hydrogen gas
B)Magnesium sulfate and hydrogen gas
C) Magnesium oxide and oxygen gas
D)Magnesium chloride and hydrogen gas

Answer: D

Solution: Reaction: $Mg + 2HCl \rightarrow MgCl_2 + H_2\uparrow$

This is a classic metal-acid displacement reaction, producing a salt ($MgCl_2$) and H_2 gas.

13. Which of the following will not undergo reaction?

A)Zinc metal + zinc oxide **B)Iron metal + copper oxide**
C)Zinc metal + iron oxide **D)Magnesium + iron oxide**

Answer: A

Solution:A metal cannot displace itself from its own compound.

14. In which of the follwoing reaction the solution becomes bluish in colour

A) Silver + Copper nitrate **B) Zinc + Hydrochloric Acid**
C) Copper + Silver nitrate **D) Silver nitrate + Sodium Hydroxide**

Answer: C

Solution: Reaction: $Cu + 2AgNO_3 \rightarrow Cu(NO_3)_2$ (blue) $+ 2Ag\uparrow$

$Cu(NO_3)_2$ in water forms a blue-colored solution.

15. Which of the following reaction doesn't take place?

A)$Mg(s)+Cu(NO_3)_2(aq) \rightarrow Mg(NO_3)_2(aq) + Cu(s)$
B)$Cu(s)+Mg(NO_3)_2(aq) \rightarrow Cu(NO_3)_2(aq) + Mg(s)$
C) $Cl_2(aq) + 2NaBr(aq) \rightarrow 2NaCl(aq) + Br_2(aq)$
D)$Cu(s) + 2AgNo_3(aq) \rightarrow 2Ag(s) + Cu(NO_3)_2(aq)$

Answer: B

Solution:Cu is less reactive than Mg (Cu < Mg), so no displacement occurs.

16. In which of the following the blue solution turns light green in colour?

A) $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$ **B)Cu(s)+$Mg(NO_3)_2$(aq)→ $Cu(NO_3)_2$(aq)+Mg(s)**

C) Cl_2(aq) + 2NaBr(aq)→ 2NaCl(aq) + Br_2(aq)

D)Cu(s) + 2$AgNo_3$(aq) → 2Ag(s) + $Cu(NO_3)_2$(aq)

Answer: A

Solution: $CuSO_4$ (blue solution)

Fe displaces Cu → $FeSO_4$ (light green solution)

This is a classic example of color change from blue → light green

17. Which of the following statement is correct?

A)Fluorine is the most reactive halogen B)Iodine is the most reactive halogen

C)Chlorine is the most reactive halogen D)Bromine is the most reactive halogen

Answer: A

Solution:Reactivity Order: F > Cl > Br > I

Fluorine is the most electronegative and reactive halogen.

18. Which of the following reaction takes palce

A)Cl_2(g)+2NaBr(aq) → 2NaCl(aq)+Br_2(*l*) B) Br_2(g)+2NaI(aq) → 2NaBr(aq)+I_2(*l*)

C)Both A & B D) None of the above

Answer: C

Solution: Halogen Displacement: More reactive halogens displace less reactive ones.

A) Cl_2 + 2NaBr → 2NaCl + Br_2 (Cl_2 > Br_2)

B) Br_2 + 2NaI → 2NaBr + I_2 (Br_2 > I_2)

19. HCl(aq)+NaOH(aq) → NaCl(aq)+H_2O(*l*) is an example for

A) Neutralisation B) Decomposition reaction

C) Double displacement reaction. D) Both A & C

Answer: D

Solution: Neutralization: Acid (HCl) + Base (NaOH) → Salt (NaCl) + Water (H_2O).

Double Displacement: H^+ and Na^+ ions exchange places.

20. Which of the following reactions are precipitation reactions?

A) $AgNO_3$ + NaCl → AgCl + $NaNO_3$

B) $BaCl_2$(aq) + Na_2SO_4(aq) →$BaSO_4$(s) + 2 $NaCl_{(aq)}$

C) Both A & B D) None

Answer: C

Solution: Precipitation involves formation of an insoluble solid.

A) $AgNO_3$ + NaCl → AgCl↓ (white ppt) + $NaNO_3$

B) $BaCl_2$ + Na_2SO_4 → $BaSO_4$↓ (white ppt) + 2NaCl

JEE ADVANCED LEVEL

MULTICORRECT TYPE:

21. $(A^+ B^-) + (C^+ D^-) \rightarrow (A^+ D^-) + (C^+ B^-)$ represents:

A) Chemical displacement B) Chemical double displacement reaction.

C) Chemical double decomposition reaction. D) Chemical combination.

Answer: B,C

Solution:Understanding the Reaction Format:

The given equation represents:

$(A^+ B^-) + (C^+ D^-) \rightarrow (A^+ D^-) + (C^+ B^-)$

This shows an exchange of ions between two compounds.

A^+ pairs with D^-, and C^+ pairs with B^-

A) Chemical displacement: Incorrect. Displacement involves one element replacing another in a compound (e.g., $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$). This is not ion exchange.

B) Chemical double displacement: Correct. The reaction fits the definition of double displacement, where ions swap partners.

C) Chemical double decomposition: Correct. This is an older term for double displacement, emphasizing the "decomposition" and recombination of ions.

D) Chemical combination: Incorrect. Combination reactions involve two substances forming one product (e.g., $A + B \rightarrow AB$).

STATEMENT TYPE:

A) Statement-I, is True, Statement - II is True; Statement - II is a correct explanation for Statement-I

B) Statement - I is True, Statement is True; Statement -II is NOT a correct explanation for Statement - I

C) Statement - I is True, Statement - II , is False

D) Statement - I is False, Statement - II is True

22. Statement I :Lead nitrate on thermal decomposition gives lead oxide ,brown coloured gas called nitrogen dioxide and oxygen gas

Statement II :lead nitrate reacts with potassium iodide to form yellow ppt of lead iodide and the reaction is double displacement as well as precipitation reaction.

Answer:B

Solution:

Statement I (True): $2Pb(NO_3)_2 \xrightarrow{\Delta} 2PbO + 4NO_2 \uparrow (brown) + O_2 \uparrow$

This is a thermal decomposition reaction, producing PbO, NO_2, and O_2.

Statement II (True but Unrelated): $Pb(NO_3)_2 + 2KI \longrightarrow PbI_2(yellow) + 2KNO_3$

This is a double displacement and precipitation reaction, but it does not explain Statement I.

23. Statement -I: A single product is formed in displacement reaction.
Statement -II: A single reactant is involved in decomposition reaction.
Answer:D

Solution: Statement I (False):
Displacement reactions always produce two products (e.g.,
Statement II (True):
Decomposition reactions involve one reactant breaking into multiple products (e.g.,

COMPREHENSION TYPE :
Comprehension-I:
A more reactive element displaces less reactive element from its aqueous salt solution is called displacement reaction.

24. $A+BC \rightarrow AC+B$ is ..... reaction .
A)Combination **B)Decomposition**
C)Displacement **D)Double displacement.**
Answer:C

Solution: The given reaction $A+BC \rightarrow AC+B$ represents a displacement reaction, where:
A more reactive element (A) displaces a less reactive element (B) from its compound (BC).
This follows the general form of displacement reactions, where one element replaces another in a compound.

INTEGER TYPE:
25. How many oxygen atoms are present in zinc sulphate?
Answer:4

Solution: Chemical Formula of Zinc Sulphate: $ZnSO_4$
Subscript for Oxygen (O): 4
Total Oxygen Atoms: 1 molecule of $ZnSO_4$ contains 4 oxygen atoms.

26. Double displacement reactions are of ..... types.
Answer:2

Solution: Double displacement reactions are primarily of two types:
Precipitation Reactions,Neutralization Reactions

MATRIX MATCH TYPE:

27. COLUMN -I	**COLUMN-II**
A) $AB \rightarrow A + B$	**1) displacement**
B) $A+ BC \rightarrow AC+B$	**2) decomposition**
C) $A+B \rightarrow AB$	**3) double displacement**
D) $AB_{(aq)} + CD_{(aq)} \rightarrow AD_{(aq)} + CB_{(aq)}$	**4) Combination**

Answer:A-2,B-1,C-4,D-3

Solution:

A) $AB \rightarrow A + B$ — 2) decomposition

B) $A + BC \rightarrow AC + B$ — 1) displacement

C) $A + B \rightarrow AB$ — 4) Combination

D) $AB_{(aq)} + CD_{(aq)} \rightarrow AD_{(aq)} + CB_{(aq)}$ — 3) double displacement

KEY

				TEACHING TASK					
				JEE MAIN LEVEL					
1	2	3	4	5	6	7	8	9	10
A	B	C	A	D	B	C	A	D	B
11	12								
A	C								
				JEE ADVANCED LEVEL					
13	14	15	16	17	18	19	20	21	22
C,D	A,B	A	B	B	C	C	A	2	4
23									
A-4,B-1,C-2,D-3									
				LEARNER'S TASK					
				CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)					
1	2	3	4	5	6	7	8	9	10
C	A	C	C	D	C	D	D	D	B
				JEE MAINS LEVEL QUESTIONS					
11	12	13	14	15	16	17	18	19	20
B	D	A	C	B	A	A	C	D	C
				JEE ADVANCED LEVEL					
21	22	23	24	25	26	27			
C	B	D	C	4	2	A-2,B-1,C-4,D-3			

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