

Udaan 2025

Chemistry

DHA: 3

Chemical Reactions and Equations

Q 1 Which of the following is/are an endothermic process(es)?

- (i) Boiling of water
- (ii) Combustion of fuel
- (iii) Melting of wax
- (iv) Sublimation of dry ice

(A) (i) and (ii) (B) (i) and (iii)

(C) (i), (ii) and (iv) (D) (i), (iii) and (iv)

Q 2 Which among the following is not an exothermic reaction?

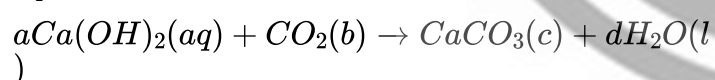
(A) Burning of natural gas

(B) Photosynthesis

(C) Respiration

(D) Composting

Q 3 Identify the value of variables in the chemical equation.



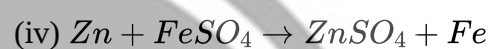
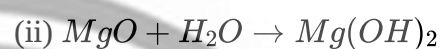
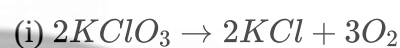
(A) a = 2, b = gas (g), c = solid (s), d = 2

(B) a = 2, b = liquid (l), c = solid (s), d = 2

(C) a = 1, b = gas (g), c = aqueous (aq), d = 1

(D) a = 1, b = gas (g), c = solid (s), d = 1

Q 4 Which of the following are combination reactions?



(A) (i) and (iii)

(B) (iii) and (iv)

(C) (ii) and (iv)

(D) (ii) and (iii)

Q 5 Match the following:

Combination Reaction		Type	
(a)	Element and compound	(i)	$AB + CD \rightarrow ABCD$
(b)	Compound and compound	(ii)	$A + B \rightarrow AB$
(c)	Element and element	(iii)	$A + BC \rightarrow ABC$

(A) (a) - (i), (b) - (ii), (c) - (iii)

(B) (a) - (ii), (b) - (i), (c) - (iii)

(C) (a) - (iii), (b) - (i), (c) - (ii)

(D) (a) - (iii), (b) - (ii), (c) - (i)

Answer Key

Q1 D
Q2 B
Q3 D

Q4 D
Q5 C



Hints & Solutions

Q 1 Text Solution:

The process in which heat is absorbed is an endothermic process.

Video Solution:



Q 2 Text Solution:

The reaction in which heat is released is an exothermic reaction.

Video Solution:



Q 3 Text Solution:

- (i) Balance the chemical equation first to know the values of a and d.
- (ii) Use option elimination to land to correct answer

Video Solution:



Q 4 Text Solution:

Look for the reactions where two or more than two reactants are combining to form a single product.

Video Solution:



Q 5 Text Solution:

Element is represented by a single letter while compound is represented by two letters.

Video Solution:



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