



CHEMISTRY

BOOKS - HT Olympiad Previous Year Paper

NSO QUESTION PAPER 2019-20 SET B

Science

1. A few materials are listed in the given box.

(i) Cotton	(ii) Polythene
(iii) Bakelite	(iv) Jute
(v) Terylene	(vi) Melamine

Select the incorrect statement regarding these materials.

A. Materials (i) and (iv) are derived from natural sources and are completely biodegradable.

B. Materials (ii) and (v) contain linear polymer chains and become soft on

heating.

C. Materials (iii) and (vi) have polymer chains with crosslinks which help them to change shape on heating.

D. None of these

Answer: C



Watch Video Solution

2. A group of class 8 students categorised a few elements as shown in the table.

	Characteristic	K	Zn	C	Fe	Cu	P
a.	Metal	✓	✓	✗	✓	✓	✗
b.	Hardness	✗	✓	✗	✓	✓	✓
c.	Malleability	✗	✓	✗	✗	✓	✓
d.	Ductility	✗	✗	✓	✓	✓	✗
e.	Conductor of electricity	✗	✓	✓	✓	✓	✓

Which characteristic(s) is/are correctly matched for all the elements?

A. a and e only

B. a, b and e only

C. b, c and d only

D. a only

Answer: D



Watch Video Solution

3. Observe the given figures showing the mixing of chemicals in four different test tubes.



Which of the following statements is/are correct?

I. H_2 gas is evolved in test tube (I).

II. Test tube (2) will burst as a large amount of heat is evolved.

III. No reaction takes place in test tube 3.

IV. In test tube 4, yellowish-green chlorine gas is evolved.

A. II and IV only

B. I only

C. II and III only

D. I and IV only

Answer: B



Watch Video Solution

4. Statement 1 : Coal, charcoal and cow dung cakes are inflammable substances.

Statement 2 : Inflammable substances have high ignition temperature.

A. Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.

B. Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.

C. Statement 1 is true and statement 2 is false.

D. Both statements 1 and 2 are false.

Answer: D



Watch Video Solution

5. A brief information about substances X, Y and Z is given here.

X: A gaseous fuel obtained by the strong heating of coal in the absence of air.

Y: A thick black liquid having an unpleasant smell obtained by heating coal in the absence

of air.

Z: A tough and porous black solid prepared by heating coal in the absence of air.

Which of the following statements is incorrect about X, Y and Z?

A. X is a mixture of methane, hydrogen, carbon monoxide and some other gases.

B. Y is a mixture of about 200 substances which can be separated by simple distillation.

C. Z contains almost 98 percent carbon.

D. Nowadays X is used as a source of heat while earlier it was used for lighting purposes.

Answer: B



Watch Video Solution

6. An unknown metal X when placed in copper sulphate solution, red brown pieces of copper fall to the bottom of the test tube. When metal X is placed in aluminium sulphate

solution, no change is observed. Metal X can be

A. Sodium

B. Potassium

C. Iron

D. Calcium

Answer: C



Watch Video Solution

7. Consider the following statements :

I. Washing soda is an acidic salt whereas baking soda is a basic salt.

II. Tamarind juice does not change the colour of red litmus solution.

III. Slaked lime neutralises the acidic nature of the soil.

IV. Milk of magnesia is acidic in nature.

The correct statements are

A. I, II and IV only

B. II, III and IV only

C. I, III and IV only

D. II and III only.

Answer: D



Watch Video Solution

8. Observe the given process and select the correct option.



Moist air
→



A. The given process becomes faster when humidity is high in the atmosphere.

B. The process represents a reversible chemical change.

C. The change can be reversed by galvanisation.

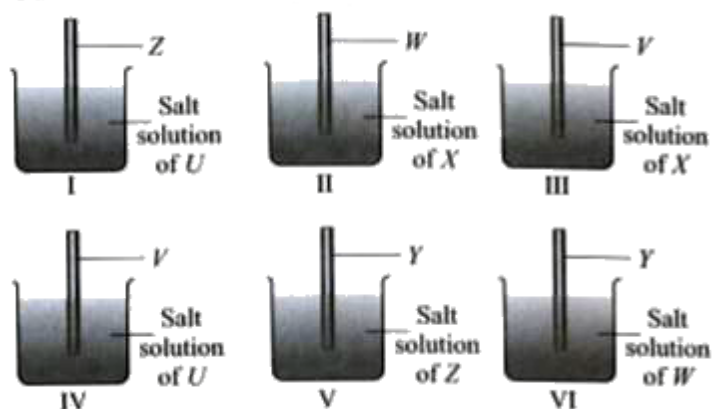
D. None of these

Answer: A



Watch Video Solution

1. Observe the following experimental set-ups carefully.



If no reaction occurs in beakers II, IV and V, then which of the following statements is correct?

A. X is less reactive than U but more reactive than Z.

B. W and X are more reactive than V.

C. Z and W are less reactive than Y.

D. V is more reactive than W but less reactive than U.

Answer: D



Watch Video Solution