



# CHEMISTRY

## BOOKS - HT Olympiad Previous Year Paper

### NSO QUESTION PAPER 2020-21 SET A

Science

1. Read the given passage and fill in the blanks by selecting an appropriate option.

(i)\_\_\_\_\_ fabrics do not wrinkle easily, (ii)\_\_\_\_\_ is used for making parachutes and stockings, (iii)\_\_\_\_\_ is used to make non-stick cookwares and (iv)\_\_\_\_\_ is used to make carpets and upholstery.

(i), (ii), (iii) and (iv) are respectively

- A. Polyester, nylon, teflon and rayon
- B. Nylon, cotton, teflon and polyester
- C. Rayon, polyester, melamine and nylon
- D. Rayon, polyester, melamine and teflon.

**Answer: A**

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2. Which of the following substances will change the colour of methyl orange indicator to yellow?

(i) Window cleaner (ii) Vinegar (iii) Apple juice

(iv) Washing soda (v) Caustic soda (vi) Carbonic

acid (vii) Citric acid

A. (ii), (iv) and (vi) only

B. (i), (iv) and (v) only

C. (iii), (vi) and (vii) only

D. (i), (ii), (iv) and (v) only

**Answer: B**



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3. When the matchstick is struck against rubbing surface, red phosphorous:

A. Some red phosphorus is converted into white phosphorus

B. Arsenic sulphide decomposes

C. Potassium chlorate starts burning

D. Powdered glass starts burning.

**Answer: A**



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**4. Identify the salts W, X, Y and Z from their uses.**

W: Used in medicines and fire extinguishers

X: Used in purification of water

Y: Used in fireworks

Z: Used as a fungicide

	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>
A.	Sodium carbonate	Potash alum	Copper sulphate	Sodium nitrate
B.	Potassium chloride	Silver nitrate	Sodium bicarbonate	Potassium sulphate
C.	Potassium nitrate	Sodium carbonate	Potash alum	Sodium chloride
D.	Sodium bicarbonate	Potash alum	Potassium nitrate	Copper sulphate



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5. Select the correct statement(s).

I. Natural gas is used for the manufacture of fertilisers.

II. Petrochemicals are used in the manufacture

of detergents.

III. Naphthalene balls are obtained from coal tar.

A. I and II only

B. III only

C. II and III only

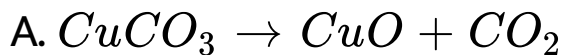
D. I, II and III

**Answer: D**

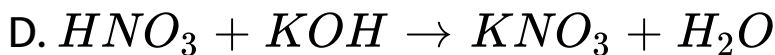
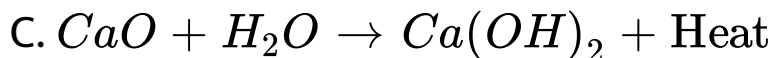
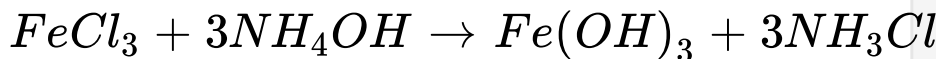


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6. Which of the following represents a precipitation reaction?



B.



**Answer: B**



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7. Read the following statements carefully and identify X, Y and Z respectively.

(i) X is stored under kerosene.

(ii) Y catches fire on exposure to air and is stored in water.

(iii) Z does not react with cold or hot water but reacts with steam.

A. Na, Mg, Cu

B. Na, P, Fe

C. Cu, Zn, K

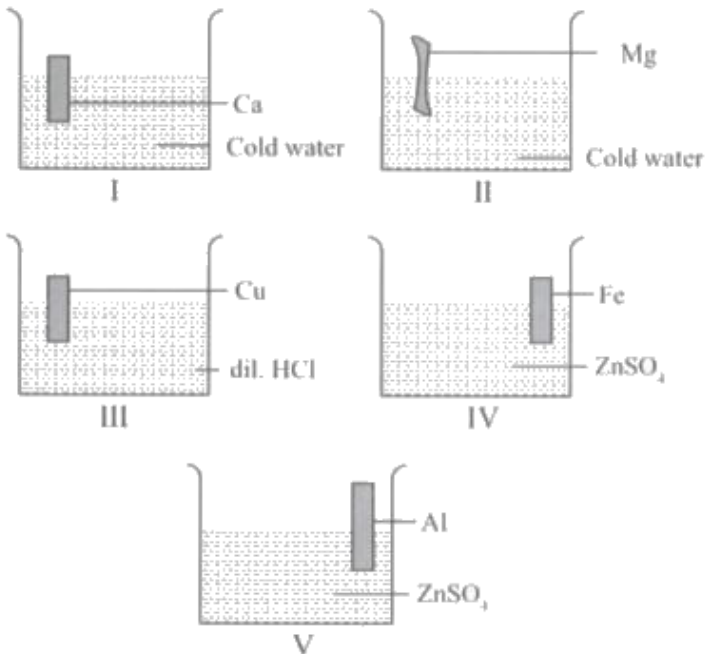
D. Zn, Cu, Na

Answer: B



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8. Observe the given experimental set-up and select the correct statement(s).



I. A gas which burns with pop sound will be evolved in beakers I, II and III.

II. A colour change from colourless to green will be observed in beaker IV.

III. Reaction will occur but no colour change will be observed in the solution of beaker V.

IV. Gas will be evolved only in beaker II.

V. Reaction will occur in all the beakers but colour change will be observed only in beakers III and V.

A. I, III and IV only

B. II, IV and V only

C. III only

D. I only

**Answer: C**



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