



# CHEMISTRY

## AAKASH INSTITUTE ENGLISH

### MOCK TEST 25

#### Example

1. Which gas is obtained by the thermal decomposition of ammonium dichromate?

A.  $O_2$

B.  $NH_3$

C.  $N_2$

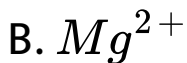
D.  $NO$

**Answer: C**



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2. With which metal ion, aqueous ammonia reacts to give a deep blue solution?



**Answer: D**



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3. Which among the following is a paramagnetic compound?

A.  $N_2O$

B. NO

C.  $N_2O_3$

D.  $N_2O_4$

**Answer: B**



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4. When copper is treated with dilute nitric acid, the gas evolved is

A.  $N_2$

B.  $NO_2$

C.  $NO$

D.  $NH_3$

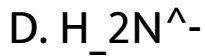
**Answer: C**



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5. Brown ring test is performed for which ion?

A.  $NO_2^-$



**Answer: B**



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**6. Shape of  $H_3PO_4$  is**

A. Pyramidal

B. Tetrahedral

C. See-saw

D. Square planar

**Answer: B**



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7. P - P - P bond angle in white phosphorous is

A.  $60^\circ$

B.  $90^\circ$

C.  $120^\circ$

D.  $109^\circ 28$

**Answer: A**



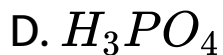
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**8.** Which among the following is not obtained by treating aqueous silver nitrate with hypophosphorous acid?

A.  $H_3PO_3$

B.  $Ag$



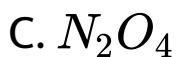
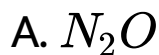


**Answer: A**



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9. Which oxide of nitrogen is coloured gas?



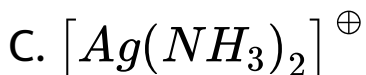
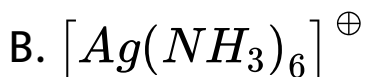
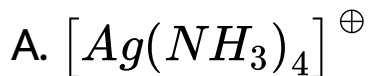
D.  $NO_2$

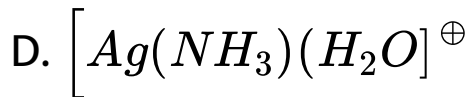
**Answer: D**



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**10.** When silver chloride is treated with aqueous ammonia, the complex obtained is





**Answer: C**



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**11.** Which gas is obtained on dissolving zinc with dilute nitric acid?



D.  $N_2O$

**Answer: D**



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**12.** Which of the following gas is used in oxyacetylene welding

A.  $O_2$

B.  $N_2$

C.  $NH_3$

D.  $CO_2$

**Answer: A**



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**13.** Phosphine is not obtained by which of the following reaction?

A. White P is heated with conc. NaOH in an inert atmosphere of  $CO_2$

B. Calcium phosphide treated with water

C. Phosphonium iodide treated with  $KOH$

D.  $PCl_5$  treated with water

**Answer: D**



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14. What is significance of  $T\Delta S$  in

$$\Delta G = \Delta H - T\Delta S?$$

A. Nitrogen and nitrous oxide

B. Nitric oxide and nitrogen pentaoxide

C. Nitric oxide and nitrogen dioxide

D. Nitrogen and nitric oxide

**Answer: C**



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**15.** Number of single and double  $P - O$  bonds

in  $P_4O_{10}$  respectively are

A. 8, 4

B. 10, 4

C. 12 , 4

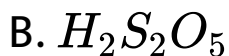
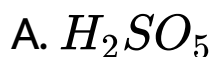
D. 10 , 2

**Answer: C**

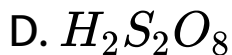
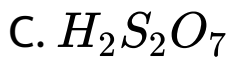


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**16.** Formula of peroxodisulphuric acid(Marshall"s acid) is







**Answer: D**



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**17.** Which of the following statements regarding conc. Sulphuric acid is not correct?

A. It is reduced to  $SO_2$  on reaction with Cu.

B. It is a strong dehydrating agent.

C. It can be used to manufacture more volatile acids from their corresponding salts.

D. The absorption of  $\text{SO}_2$  in sulphuric acid produces oleum.

**Answer: D**



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18. Which of the following interhalogen compound is a gas at 298K?

A. ICl

B. IBr

C. BrF<sub>5</sub>

D. ClF

**Answer: D**



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19. Which of the following statements regarding sphaerosomes is not correct ?

A. Interhalogens involve covalent bonding

B. Interhalogens are less reactive than halogens

C.  $(\text{ICl}_3)_2$  in fused form shows enhanced electrical conductivity

D. Interhalogens of the formula  $\text{XX}'_4$

**Answer: B**



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20. Which of the following hydrogen halide is liquid at 273K?

A. HI

B. HBr

C. HCl

D. HF

**Answer: D**



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21. The correct order of decreasing acidic strength of oxyacids of group 15 element is



**Answer: A**



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22. Sulphur shower produces yellow clouds in pine forests in May in hills. It is due to

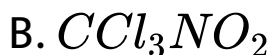
- A. See- saw geometry
- B. High polarization power
- C. Least steric hindrance
- D. Dimeric in nature

**Answer: C**



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23. Dispersion of tear gas happens during riots, the formula of tear gas is



**Answer: B**



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24. Which of the following oxoacids of halogen doesn't exist



**Answer: A**



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25. In vapour state, sulphur ( $S_2$ ) shows paramagnetic behaviour due to

- A. Presence of one unpaired electron in the antibonding  $\sigma^*$  orbitals
- B. Presence of two unpaired electrons in the bonding pi orbitals
- C. Presence of one unpaired electrons in the bonding  $\pi^{**}$  orbitals
- D. Presence of two unpaired electrons in the antibonding  $\pi^{**}$  orbitals

**Answer: D**



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**26.** Which of the following are extensive properties ?

A. It is used as a germicide, disinfectant and for sterilising water

B. It is used as a bleaching agent for oils, ivory and delicate fabrics

C. It is used as an oxidising agent in the manufacture of potassium permanganate

D. It is used in oxyacetylene and oxyhydrogen flames

**Answer: D**



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27. The shape of  $BrF_3$  molecule is slightly bent 'T', because

A. The lone pairs occupy the equatorial position to minimize lone pair-lone pair and the bond pair-lone pair repulsions

B. The axial fluorine atoms will be bent towards the equatorial fluorine in order to minimize the lone pair-lone pair repulsions.

C. According to the VSEPR theory, one lone pair of Br occupies the equatorial position and the second one occupied the axial position in order to minimize the lone pair-lone pair repulsion

D. Both (1) and (2)

**Answer: D**



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28. Which of the following order is incorrect?

A. HF gt HCL gt HBr gt HI - Acidic strength

B. Cl gt F gt Br gt - Electron affinity

C.  $Cl_2 > Br_2 > F_2 > I_2$  - Bond

dissociation energy

D.  $F_2 > Cl_2 > Br_2 > I_2$  - Oxidising

power

**Answer: A**



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**29.** Identify the incorrect statement with respect to ozone.

A. It is formed when dry stream of  $O_2$  is passed through a silent electrical discharge

B. It acts as a powerful oxidizing agent

C. It's decomposition into oxygen results in an increase in entropy



D. Ozone protects the earth's inhabitants  
by absorbing gamma radiations

**Answer: D**



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**30. Incorrect statement is :**

A. It is insoluble in water

B. It exist as  $S_8$  molecules, which is  
puckered crown ring structure

C. It is white in colour

D. Its melting point is lower than  
monoclinic sulphur

**Answer: C**



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**31.** Noble gases do not react with other elements because

A. The size of their atoms are very small

B. They are not found in abundance

C. They are monoatomic

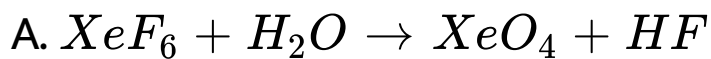
D. They have very stable electronic configuration

**Answer: D**



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**32.** Which one of the following reactions of xenon compounds is not feasible ?



B.

C.

D.

**Answer: A**



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**33.** In which of the following , central atom does not have one lone pairs of electron ?

A. (a) & (b)

B. (a), (c) & (d)

C. (c) & (d)

D. (b) & (c)

**Answer: C**



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**34.** Name of the synthetic radioactive element of group 16 having atomic number 116 is

A. He

B. Ar

C. Ne

D. Xe

**Answer: D**



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**35.** What will be the correct order of size for the given elements ?

A.  $He > Ne > Xe > Ar > Kr$

B.  $Xe > Kr > Ar > Ne > He$

C.  $He > Ne > Ar > Kr > Xe$

D.  $Xe > Ar > Kr > Ne > He$

**Answer: B**



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**36.** The complete hydrolysis of which of the following compounds of Xe is a redox reaction?

A.  $XeF_2$

B.  $XeF_4$

C.  $XeF_6$

D. Both (1) and (2)

**Answer: D**



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**37.** Which among the following elements will have a positive electron gain enthalpy ? B, C, N, O.



A. He

B. Ne

C. Ar

D. Xe

**Answer: A**



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