



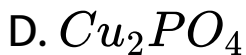
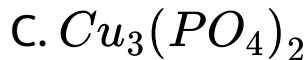
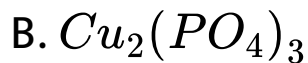
# CHEMISTRY

## BOOKS - TARGET CHEMISTRY (HINGLISH)

### QUESTION PAPER 2019

Mcqs

1. Which is the CORRECT molecular formula of copper phosphate ?



**Answer: C**



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2. Boron has two isotopes, B-10 and B-11. The average atomic mass of boron is found to be

10.80u. Calculate the percentage of abundance of these isotopes.

A. 20 %

B. 81 %

C. 19 %

D. 80 %

**Answer: C**



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3. At constant temperature , the pressure of  $22.4dm^3$  volume of an ideal gas is increased from 105 Kpa to 210KPa, new volume of the gas is \_\_\_\_\_.

A.  $22.4dm^3$

B.  $5.6dm^3$

C.  $11.2dm^3$

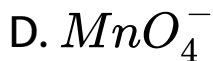
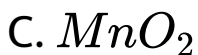
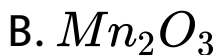
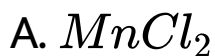
D.  $44.8dm^3$

**Answer: C**



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4. The oxidation number of Mn is maximum in \_\_\_\_\_.

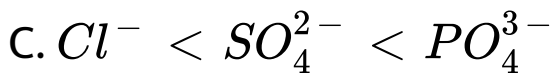
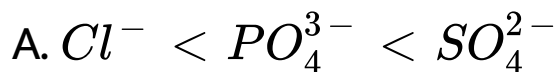


**Answer: D**



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5. The CORRECT increasing order of power of precipitation among the following is \_\_\_\_\_.



**Answer: C**



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6. In a covalent bond, a difference of 1.7 in the electronegativities of the combining atoms produces an ionic character of about \_\_\_\_\_.

A. 50 %

B. 30 %

C. 90 %

D. 70 %

**Answer: A**



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7. Which among the following hydrides is electron-deficient covalent hydride ?

A. Hydrogen fluoride

B. Ammonia

C. Potassium hydride

D. Diborane

**Answer: D**



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8. Which of the following elements does NOT react with cold and hot water /

A. Ba

B. Ca

C. Sr

D. Be

**Answer: D**



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9. Tropone is an example of \_\_\_\_\_.

- A. heterocyclic benzenoid
- B. homocyclic benzenoid
- C. homocyclic non-benzenoid
- D. heterocyclic non-benzenoid

**Answer: C**



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10. The alkane which does NOT undergo nitration is \_\_\_\_\_.

A. butane

B. methane

C. propane

D. ethane

**Answer: B**



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11. How many total spheres of constituent particles are present in bcc type of unit cell /

A. 2

B. 1

C. 4

D. 3

**Answer: A**



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12. The radius of cation is 100 pm and that of anion is 188 pm, then the coordination number of cation is \_\_\_\_\_.

A. 8

B. 6

C. 4

D. 3

**Answer: B**



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13. If the elevation in boiling point of a solution of 50 g of solute (molar mass =100) in 500 g of water is  $\Delta T_b$  . The ebullioscopic constant  $K_b$  of water is equal to \_\_\_\_\_.

A.  $100\Delta T_b$

B.  $\frac{\Delta T_b}{50}$

C.  $10\Delta T_b$

D.  $\Delta T_b$

**Answer: D**



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14. The osmotic pressure of a solution at  $0^{\circ}C$  is  $4\text{atm}$ . What will be its osmotic pressure at  $546K$  under similar conditions?

a. $4\text{atm}$ , b. $9\text{atm}$ ,c. $8\text{atm}$ , d. $6\text{atm}$

A. 2 atm

B. 8 atm

C. 4 atm

D. 0.5 atm

**Answer: B**



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**15.** The van't Hoff factor for 0.1 M  $Ba(NO_3)_2$  solution is 2.74. The degree of dissociation is

- A. 90 %
- B. 100 %
- C. 87 %
- D. 75 %



**Answer: C**



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**16.** A system releases 15Kj of energy as heat and does 10 Kj of work on surroudings, What is change in internal energy ?

A.  $+10KJ$

B. 25 KJ

C.  $-25KJ$

D.  $-5KJ$

**Answer: C**



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**17.** Which of the following equations is correct for isochoric process according to first law of thermodynamics ?

A.  $\Delta U = q_v$

B.  $\Delta U = q + W$

C.  $\Delta U = W$

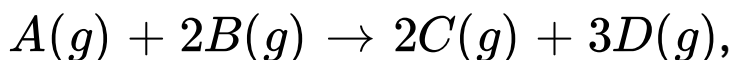
D.  $Q = -W$

**Answer: A**



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**18.** For the reaction



the value of  $\Delta H$  at  $27^\circ C$  is  $19.0 \text{ kcal}$ . The value of  $\Delta E$  for the reaction would be

$$(R = 2.0 \text{ cal H}^{-1} \text{ mol}^{-1})$$

A. 19.8 kcal

B. 20.8 kcal

C. 18.8 kcal

D. 17.8 kcal

**Answer: D**



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**19.** Conductivity of an electrolytic solution and cell constant are related by \_\_\_\_\_.

A.  $K = R \times \frac{l}{a}$

B.  $K = \frac{1}{R} \times \frac{l}{a}$

$$C. K = \frac{l}{R} \times \frac{a}{l}$$

$$D. K = R \times \frac{a}{l}$$

**Answer: B**



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**20.** The distance between the electrodes of a conductivity cell is 0.98 cm and the cell constant is  $0.5\text{cm}^{-1}$ . Calculate the cross-sectional area of electrode.

A.  $1.96\text{cm}^2$

B.  $3.92\text{cm}^2$

C.  $0.4\text{cm}^2$

D.  $0.5\text{cm}^2$

**Answer: A**



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**21.** Which of the following electrolytes is used to maintain electrical energy neutrality in the Daneil cell ?

A. KCl

B. KOH

C.  $NH_4Cl$

D. NaCl

**Answer: A**



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**22.** For a first order reaction, when a graph is

plotted between  $\log^{10} \frac{([A])_0}{([A])_t}$  on y-axis and

time (t) on x-axis , slope of the graph of the graph is equal to \_\_\_\_\_.

A.  $-K$

B.  $K$

C.  $-\frac{K}{2.303}$

D.  $\frac{K}{2.303}$

**Answer: D**



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23. The unit of rate constant for zero order reaction is :

A.  $\text{mol dm}^3 \text{ sec}^{-1}$

B.  $\text{mol dm}^3 \text{ sec}$

C.  $\text{mol sec}^{-1}$

D.  $\text{mol dm}^{-3} \text{ sec}^{-1}$

**Answer: D**



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24. Which among the following is a mineral of zinc ?

A. Calamine

B. Limonite

C. Siderite

D. Dolomite

**Answer: A**



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25. Percentage of carbon in steel is \_\_\_\_\_.

A. 0.2 to 2%

B. less than 0.2%

C. 4 %

D. more than 4%

**Answer: A**



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26. The element that does not exhibit allotropy is

A. As

B. Sb

C. Bi

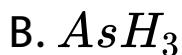
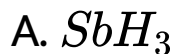
D. N

**Answer: C**



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27. Which among the following hydrides is used in Holme's signals for ships ?



**Answer: C**



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28. Which of the following statement is CORRECT for  $PCl_5$  molecule /

A. Three equatorial bonds are equivalent but two axial are larger.

B. All five bonds are equivalent.

C. Three equatorial bonds are equivalent but two axial bonds are shorter.

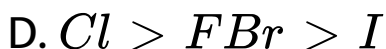
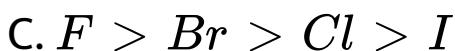
D. All five bonds have different bond lengths.

**Answer: A**



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**29.** The CORRECT decreasing order of energy released when an electron is added to neutral gaseous halogens is \_\_\_\_\_.



**Answer: D**



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**30.** Which noble gas is used in gas chromatography?

A. Helium

B. Krypton

C. Radon

D. Argon



**Answer: D**



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**31.** The spin-only magnetic moment [in units of Bohr magneton, ( $\mu_B$  of  $Ni^{2+}$ ) in aqueous solution would be (atomic number of  $Ni = 28$ )

A. 0.0 B.M

B. 2.84 B.M

C. 4.90 B.M

D. 1.73 B.M

**Answer: B**



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**32.** Which among the following elements is radioactive ?

A. Lu

B. Dy

C. Yb

D. Pm

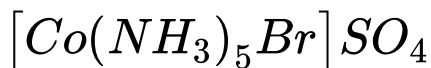
**Answer: D**



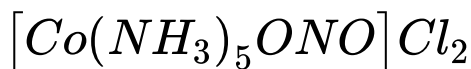
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**33.** Which among the following is an example of ionization isomer ?

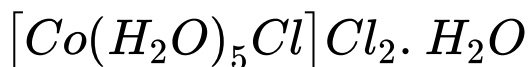
A.  $[Co(NH_3)_5SO_4]Br$  and



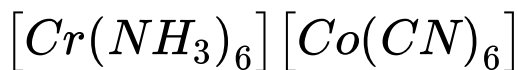
B.  $[Co(NH_3)_5NO_2]Cl_2$  and



C.  $[Co(H_2O)_6]Cl_3$  and



D.  $[Co(NH_3)_6] [Cr(CN)_6]$  and



**Answer: A**



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34. Which dispositive ion of following metals from most stable coordination complex with ammonia ?

A. Co(Z=27)

B. Fe(Z=26)

C. Cu(Z=29)

D. Mn(Z=25)

**Answer: C**



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35. An alkane that gives only one types of monohalogen derivative on homogenation is \_\_\_\_\_.

A. neopentane

B. neohexane

C. isobutane

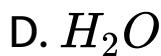
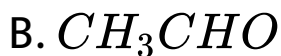
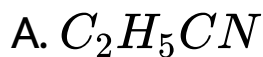
D. isopentane

**Answer: A**



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36. Which compound among the following on reaction with ethyl magnesium bromide gives ethane ?



**Answer: D**



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37. Chlorobenzene on heating with NaOH at 633 K under pressure gives

A. benzioc acid

B. chlorophenol

C. phenol

D. benzaldehyde

**Answer: C**



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38. 23g of sodium when reacts with ethanol liberates\_\_\_\_\_.

A.  $22.4dm^3$  dihydrogen at NTP

B.  $0.5dm^3$  dihydrogen at NTP

C.  $11.2dm^3$  dihydrogen at NTP

D.  $11.2dm^3$  dioxygen at NTP

**Answer: C**



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39. The structural formula of phenetole is

\_\_\_\_\_.

A. 

B. 

C. 

D. 

**Answer: B**



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40. Which among the following compounds is NOT obtained when Ca-acetate and Ca-propionate mixture is dry distilled ?

A. Acetone

B. Diethyl ketone

C. Ethyl methyl ketone

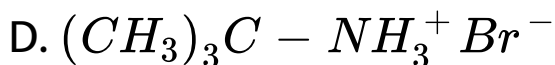
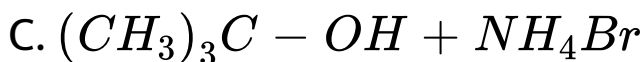
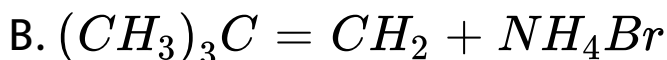
D. Acetaldehyde

**Answer: D**



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41. The product(s) obtained when t-butyl bromide is treated with alcoholic ammonia is \_\_\_\_\_.



**Answer: B**



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42. In aqueous phase, most basic among the following is \_\_\_\_\_.

A. ammonia

B. trimethylamine

C. methylamine

D. dimethylamine

**Answer: D**



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43. Which among the following terpene is main constituent of bayberry ?

A. Squalene

B.  $\beta$ -Pinene

C. Myrcene

D. Menthol

**Answer: C**



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44. Inflammation of tongue is due to the deficiency of \_\_\_\_\_.

A. vitamin  $B_5$

B. vitamin  $B_6$

C. vitamin  $B_1$

D. vitamin  $B_2$

**Answer: D**



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45. Homopolymer amongst the following is \_\_\_\_\_.

A. dextran

B. terylene

C. nylon-6,6

D. neoprene rubber

**Answer: D**



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**46.** Which of the following is biodegradable polymer ?

A. Nylon-6

B. Nylon-2-nylon-6

C. Terylene

D. Nylon-6,6

**Answer: B**



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47. Which of the following is NOT an antihistamine ?

A. Ranitidine

B. Bromopheniramine

C. Terfenadine

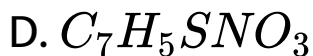
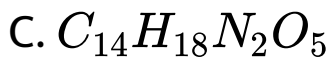
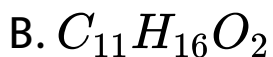
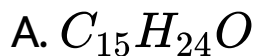
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**Answer: D**



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48. The molecular formula of BHA is"



**Answer: B**



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