Dear student following is an Easy level [●●○○○] test paper. Any 10 correct attempts in 20 minutes would be a satisfactory performance. Many questions have narrow difference among choices be careful.

Q.1 The pair of compounds which cannot exists together in solution is :
(A) $NaHCO_3$ and NaOH
(B) Na_2CO_3 and $NaHCO_3$
(C) Na_2CO_3 and NaOH
(D) $NaHCO_3$ and NaCl

Q.2 The brown ring complex compound is formulated as $[Fe(H_2O)_5(NO)^+]SO_4$. The oxidation state of iron is :
(A) 1 (B) 2 (C) 3 (D) 0

Q.3 In nitroprusside ion the iron and NO exist. NO exist as Fe^{II} and NO^+ rather than Fe^{III} and NO. These forms can be differentiated by :
(A) Estimating the concentration of iron
(B) Measuring the concentration of CN
(C) Measuring the solid state magnetic moment
(D) Thermally decomposing the compound

Q.4 A gas 'X' is passed through water to form a saturated solution. The aqueous solution on treatment with silver nitrate gives a white precipitate. The saturated aqueous solution also dissolves magnesium ribbon with evolution of a colourless gas 'Y'. Identify 'X' and 'Y' :
(A) X = CO_2, Y = Cl_2
(B) X = Cl_2, Y = CO_2
(C) X = Cl_2, Y = H_2
(D) X = H_2, Y = Cl_2

Q.5 [X] + H_2SO_4 → [Y] a colourless gas with irritating smell.
[Y] + $K_2Cr_2O_7$ + H_2SO_4 → green solution
[X] and [Y] are :
(A) SO_3^{2-}, SO_2 (B) Cl^-, HCl
(C) S^{2-}, H_2S (D) CO_3^{2-}, CO_2

Q.6 A sodium salt of an unknown anion when treated with $MgCl_2$ gives white precipitate only on boiling. The anion is :
(A) SO_4^{2-} (B) HCO_3^-
(C) CO_3^{2-} (D) NO_3^-

Q.7 Which of the following statement(s) is (are) correct when a mixture of NaCl and $K_2Cr_2O_7$ is gently warmed with conc. H_2SO_4 ?
(A) A deep red vapour is evolved
(B) The vapours when passed into NaOH solution gives a yellow solution of Na_2CrO_4
(C) Chlorine gas is evolved
(D) Chromyl chloride is formed

Q.8 $AgNO_3$ gives yellow ppt. with
(A) KIO_3 (B) KI (C) CHI_3 (D) CH_2I_2

Q.9 An inorganic salt when heated evolved a coloured gas which bleaches moist litmus paper. The evolved gas is-
(A) NO_2 (B) Cl_2 (C) Br_2 (D) I_2

Q.10 Two colourless gases on mixing formed a dense white fumes. These are-
(A) NH_3 and SO_2 (B) SO_2 and steam
(C) NH_3 and HCl (D) NH_3 and HNO_2

Q.11 A salt was first heated with dilute H_2SO_4 and then with concentrated H_2SO_4. No action was observed in either case. The salt will be-
(A) Nitrite (B) Sulphite
(C) Sulphide (D) Sulphate

Q.12 A white solid soluble in water on being heated gives brown gas and when dil. HCl is added to its aqueous solution, a white ppt. is obtained. The solid is-
(A) $Ba(NO_3)_2$ (B) $Zn(NO_3)_2$
(C) $Ca(NO_3)_2$ (D) $Pb(NO_3)_2$

Q.13 Preparation of sodium carbonate extract is made while analysing the acid radical because-
(A) Na_2CO_3 is water soluble
(B) Na is more reactive
(C) All anions react with Na^+ to give water soluble compounds
(D) This helps in the easy detection of ions.

Q.14 A mixture of inorganic substances on treatment with dilute H_2SO_4 gives out a gas which turns lead acetate paper black while potassium dichromate paper is turned green. The mixture contains-

(1) Sulphite **(2) Sulphide**
(3) Nitrate **(4) Nitrite**

(A) Only 1 (B) Both 1 and 2
(C) 1, 2 and 3 (D) Both 3 and 4

Q.15 When CS_2 layer containing both Br_2 and I_2 is shaken with excess of Cl_2 water, the violet colour due to I_2 disappears and orange colour due to Br_2 appears. The disappearance of violet colour is due to the formation of-

(A) I_3^- (B) HIO_3 (C) ICl_2 (D) I^-

Q.16 A metal chloride solution on mixing with K_2CrO_4 solution gives a yellow ppt. soluble in NaOH. The metal may be-

(A) Mercury (B) Zinc
(C) Silver (D) Lead

Q.17 The chloride soluble in hot water is-

(A) $PbCl_2$ (B) AgCl
(C) Hg_2Cl_2 (D) None of these

Q.18 Which of the following gives white ppt. with KI followed by the addition of hypo?

(A) $CuSO_4$ (B) $HgCl_2$
(C) $FeCl_3$ (D) Both (A) and (B)

Q.19 A mixture of inorganic substances on treatment with H_2SO_4 (dilute) gives out a gas which turns potassium dichromate paper green and lead acetate paper black. The mixture contains-

(A) Nitrite (B) Nitrate
(C) Sulphite (D) Sulphide

Q.20 Both SO_2 and CO_2 turn lime water (X) milky. SO_2 also turns acidified potassium dichromate (Y) green while O_2 is soluble in pyrogallol (Z) turning it black. These gases are to be detected in order by using these reagents. The order is-

(A) (Y), (X), (Z) (B) (Z), (Y), (X)
(C) (X), (Y), (Z) (D) (Y), (Z), (X)

Q.21 A mixture on heating gave a gas which is (i) used as anaesthetic (ii) dissolved in water forming cis and trans dibasic acid 1.1 g of gas occupies a volume of 0.56 L at NTP. Mixture contains-

(A) $NaNO_2 + NH_4Cl$ (B) $NaNO_3 + NH_4Cl$
(C) $Na_2SO_4 + NH_4Cl$ (D) $CaCO_3 + NaNO_3$

Q.22 Which compound will not give positive chromyl chloride test-

(A) Copper chloride, $CuCl_2$
(B) Mercuric chloride, $HgCl_2$
(C) Zinc chloride, $ZnCl_2$
(D) Anilinium chloride, $C_6H_5NH_3^+Cl^-$

Q.23 Colour of $KMnO_4$ is decolourised without evolution of any gas. The radical present may be-

(A) SO_4^{2-} (B) SO_3^{2-}
(C) Sn^{2+} (D) Both (B) and (C)

Q.24 (A) is yellow coloured solid partially soluble in NH_4OH. (A) is also soluble in hypo solution forming a complex (B) which on heating is converted into black (C). (C) on reaction with HCl + HNO_3 is converted into white ppt. (D). (D) dissolves in NH_4OH to give E. Identify D.

(A) AgBr (B) AgCl
(C) Ag_2S (D) $[Ag(NH_3)_2]Cl$

Q.25 (X) is an important laboratory reagent, turns red litmus blue, imparts golden yellow colour to the flame and is a good precipitating agent. (X) gives H_2 gas on reaction with Zn or Al. (X) gives white ppt. on reaction with $AlCl_3$ or $ZnCl_2$ but ppt. dissolves in excess of (X). Identify (X)

(A) NaOH (B) KOH
(C) Na_2SO_4 (D) K_2SO_4

Q.26 Which of the following anions is very difficult to be removed from aqueous solution by precipitation ?

(A) CO_3^{-2} (B) SO_4^{-2}
(C) NO_3^- (D) Br^-.

CHEMISTRY IIT JEE (CLASS TEST - 9) (INORGANIC) ANSWER KEY

Name : ..... Roll No. : .....

	A	B	C	D	E		A	B	C	D	E		A	B	C	D	E
1	○	○	○	○	○	10	○	○	○	○	○	19	○	○	○	○	○
2	○	○	○	○	○	11	○	○	○	○	○	20	○	○	○	○	○
3	○	○	○	○	○	12	○	○	○	○	○	21	○	○	○	○	○
4	○	○	○	○	○	13	○	○	○	○	○	22	○	○	○	○	○
5	○	○	○	○	○	14	○	○	○	○	○	23	○	○	○	○	○
6	○	○	○	○	○	15	○	○	○	○	○	24	○	○	○	○	○
7	○	○	○	○	○	16	○	○	○	○	○	25	○	○	○	○	○
8	○	○	○	○	○	17	○	○	○	○	○	26	○	○	○	○	○
9	○	○	○	○	○	18	○	○	○	○	○						

CHEMISTRY IIT JEE (CLASS TEST - 9) (INORGANIC) ANSWER KEY															
Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				

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Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	A	A	C	C	A	B	A,B,D	B	B	C	D	D	C	B	B
Que.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**				
Ans.	D	A	A	D	A	B	B	D	B	A	C				