

SECOND YEAR HIGHER SECONDARY EXAMINATION MARCH 2017

SUBJECT : CHEMISTRY

CODE. NO: 5016

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1	a	Metal deficiency defect	1	4
	b	Ferromagnetic substance	1	
		diagram or explanation of ferromagnetic or ferrimagnetic	1	
	c	diagram or explanation of conductor or insulator	1	
2.	a(i)	statement or mathematical expression	1	4
	(ii)	One application	1	
	b	$M_2 = \frac{W_2 RT}{\pi V}$	1	
		Correct substitution	1	
3.	a	$\text{Cu(s)} \text{Cu}^{2+}(\text{aq}) \text{Ag}^+(\text{aq}) \text{Ag(s)}$ or diagram	1	4
	b.	$2 \text{Ag}^+ + 2 \text{e}^- \longrightarrow 2 \text{Ag} \text{ (Cathode rxn) } \frac{1}{2}$ $\text{Cu(s)} \longrightarrow \text{Cu}^{2+}(\text{aq}) + 2 \text{e}^- \text{ Anode rxn } \frac{1}{2}$	1	
	c.	Equation	1	
		substitution	1	
		Correct substitution without eqn	2	
		Correct answer only	1	

1/5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
4	a	graph	2	4
	b	definition or equation or example	2	
	c	Correct equation substitution	1 1 2	
5	a	Two differences between physisorption and chemisorption	2	3
	b	One application	1	
6		Definition of leaching 1 Explanation of leaching 3 or Equations (3 steps) - 3 (one mark for each step)	3	3
7	a	N_2O	1	5
	b	One method of preparation 2 Two chemical properties 2 Two uses 2 Ostwald process (name only) 1	4	
	a	PH_3	1	
	b	One method of preparation of PCl_3 or PCl_5 2 One chemical property of PCl_3 or PCl_5 2	2	
			2	
			2	
			2	

2/5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
		Draw the structure of PCl_3 or PCl_5 2		
8	(i) Two properties - (Name or explanation) 2 (ii) For Cr^{2+} , configuration changes from d^4 to d^3 or Mn^{3+} to Mn^{2+} , d^5 configuration results in extra stability (half filled configuration) or Configuration of Cr^{3+} or Mn^{2+}		1	4
	b. Thorium		1	
9.	a. Ionisation isomerism b. (i) Penta ammine sulphato cobalt (III) chloride (ii) Penta ammine chlorido cobalt (III) sulphate (Chloro)		1 2 2	4
	c. Name or formula of two ligands		1	
10	a. Nitrite ion b. (i) One method of preparation (ii) One reason - (No need of explanation)		1 1 2	4

3/5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
11	a	Ethanol < propan-1-ol < buten-2-ol < buten-1-ol (correct order only)	1	4
	b	Name of one product or one eqn. if write 'No' only (1)	3	
12	a	Benzaldehyde	1	5
	b(i)	KMnO ₄ or oxidation or one oxidising agent (2)	4	
	(ii)	Ammonolysis or reaction with NH ₃ (2)		
	(iii)	Reduction or reducing agent (2)		
	(iv)	P ₂ O ₅ or heating or dehydrating agent (2)		
	b	Reaction or explanation of		
	(i)	Esterification (2)		
	(ii)	Tollen's test (2)		
	(iii)	HVZ reaction (2)		
	(iv)	Decarboxylation of carboxylic acid (2)		
13	a	Two correct answer	1	3
	b	Name or formula of B or C	2	
14	a	Cellulose	1	3
	b	Zwitter ion / explanation / structure	2	

4/5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
15	a	Addition polymer	1	3
	b.	Definition or one difference or one example each	2	
16		Explain any one One example	2	3

5/5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1.		Abbosah T.K. NVT chemistry VHSS. Karkottu kadavu		
2.		Lincy P. Sem, St. Sebastian's HSS, Velimannam		
3.		Moossa K, NVT chemistry, Kadavallur VHSS,		
4.		Anehumol Augustine St. Thomas HSS Erattayar		
5.		Annamma John Vijaya HSS Pulpally, Wayanad		
6.		Shiji Varghese T St. Mary's HSS, Thalekkode		
7.		M Sajeev. NNMHSS, Chelembra Makappuram		
8.		Sreya T.M, H.H.S. H.B.S. HSS, Edneer Kasragod		
9.		Preetha S, A.G.R.M. HSS, Vallikunnam, Alappuzha		
10.		SHAJI GEORGE, MSM HSS Kalligal Poombe		
11.		DAVID K.C. Chalavara HSS Chalavara. P.O. Palakkad dist		
12.		Manoj. c.I PMSAVHSS Chappanangadi Malappuram (Dist)		
13.		Rajeev P.L. MVHSS, Theundathi/ Tm,		

14. B. VIDHU. E.V. H.S.S. Edamoo
Kollam

15. Suresh kumar PMAVHSS - Palakkad R(P.O.)

16 Smiya Jacob MS-HS Ranny
Pattanamthitta

...

17. Suresh k. WOVHSS. muller
Wayanad

...

18 BABU K.A SNVHSS Nanduvil
Jadakkal

...

19. MINI. P.V. NUT IN CHEMISTRY
VHSS Kozhikode THRISSUR

...

20 BINDU. N, NUT in chemistry
GMVHSS Thiruvallur Palakkad

...

21 Sajimon K.G Govt Nalanda HSS Thiruvallur
Kozhuppalikara

...

22. Maya M.W. AKMHSS, Poochatty.
Thiruvallur.

Maya

23 JALAJA M.W. NUT Chemistry
NIVHSS Marampally

...

24 P.V. Vijaya Lakshmi NUT Chemistry S.N.S.V.H.S. S. Vaitou.

...