SRIMAAN COACHING CENTRE-TRICHY-TN-MAWS-SANITARY
INSPECTOR (PUBLIC HEALTH & SANITATION)—QUESTION
BANK & STUDY MATERIAL-TO CONTACT: 8072230063.

2024-25 SRIMAAN



## TNMAWS

MUNICIPAL ADMINISTRATION & WATER SUPPLY DEPARTMENT-(MAWS)

PUBLIC HEALTH & SANITATION (SANITARY INSPECTOR)

QUESTION BANK

## TN-MAWS STUDY MATERIALS

CIVIL / MECHANICAL / ELECTRICAL / TOWN PLANNING / ARCHITECTURE / PUBLIC HEALTH & SANITATION

TRB-ASSISTANT PROFESSOR-(ALL SUBJECT) STUDY MATERIAL AVAILABLE.

PG-TRB STUDY MATERIALS: TAMIL/ENGLISH MATHEMATICS PHYSICS CHEMISTRY COMMERCE (T/M & E/M)/BOTANY (T/M & E/M)/ZOOLOGY HISTORY (T/E)/ECONOMICS (T/E)/GEOGRAPHY /BIO-CHEMISTRY PGTRB-COMPUTER INSTRUCTOR GRADE-I -TO CONTACT -8072230063.

SRIMAAN COACHING CENTRE-TRICHY-TN-MAWS-SANITARY INSPECTOR (PUBLIC HEALTH & SANITATION)—QUESTION BANK & STUDY MATERIAL-TO CONTACT: 8072230063.

2024-25 SRIMAAN

#### TRB-POLYTECHNIC LECTURER MATERIALS:

MATHEMATICS / ENGLISH /PHYSICS / CHEMISTRY/COMPUTER SCIENCE/ IT /
EEE /ECE /EIE/ICE/MECHANICAL/CIVIL/MOP AVAILABLE.

TRB-ASST.PROFESSOR STUDY MATERIAL AVAILABLE.
SCERT/DIET/GTTI LECTURER STUDY MATERIAL AVAILABLE.

UG-TRB & SGT: (ALL SUBJECT) STUDY MATERIALS AVAILABLE.

DEO & BEO (T/M & E/M) STUDY MATERIALS AVAILABLE.

PG-TRB: COMPUTER INSTRUCTOR GRADE-1 -FULL STUDY MATERIAL WITH QUESTION BANK AVAILABLE

TNPSC-ASSISTANT DIRECTOR OF CO-OPERATIVE AUDIT STUDY
MATERIAL AVAILABLE.

TNEB-(ASSESSOR/AE/JA) MATERIALS WITH QUESTION BANK AVAILABLE

UG-TRB/PG-TRB / TRB-ASST.PROF / TN-MAWS
MATERIALS ARE SENDING THROUGH COURIER.

TO CONTACT

## 8072230063

PG-TRB STUDY MATERIALS: TAMIL/ENGLISH MATHEMATICS PHYSICS CHEMISTRY COMMERCE (T/M & E/M)/BOTANY (T/M & E/M)/ZOOLOGY HISTORY (T/E)/ECONOMICS (T/E)/GEOGRAPHY /BIO-CHEMISTRY PGTRB-COMPUTER INSTRUCTOR GRADE-I -TO CONTACT -8072230063.

2024-25 SRIMAAN

## SRIMAAN COACHING CENTRE-TRICHY.

**TO CONTACT: 8072230063.** 

# TIN-IVIAWS SANITARY INSPECTOR

## PUBLIC HEALTH & SANITATION QUESTION BANK

**DURATION: 1/2 hr UNIT-1-CHEMISTRY** Max.Marks:75

1. In pesticide, the root word is latin word "cide" which means

a. To harm b.To control c.To kill d.To suicide **Answer: c**)

2. Which of the following is not a pesticide?

a.Boric acid b.Allethrin c.Rozol d.Alprazolam Answer: d)

3. The most commonly used pesticide toxaphene is

a.Carbamate b.Organophosphate c.Organochlorine d.Antibiotic Answer: c)

4. Pyrethrum, a naturally occurring pesticide is derived from

a.rocus b.Daffodil c.Chrysanthemum d.Butter cup Answer: c)

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT) BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS TNEB-ASSESSOR-A.E/J.A / SCERT / DIET / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE-TO CONTACT: 8072230063.

2024-25 SRIMAAN

5. DDE, a insecticide is a acronym for							
a.Dichloro diphenyld	a.Dichloro diphenyldichloro ethylene		b.Dibromo diphenyldichloro ethylene				
c. ichloro diphenyldio	ch loroethenyl	d. Dibromo diphenyld	ichloro ethenyl	Answer: a)			
6. The active ingredient pres	6. The active ingredient present in Baygon is						
a.ransfluthrin	b.Malathion	c.Carbofuran	d.Aldicarb	Answer: a)			
7. DDT is							
a.Biodegradable	b.Non biodegradable	c.Growth enhancer	d.Tranquilizer	Answer: b)			
8. The most commonly used	pesticide is benzene he	exachloride(BHC). It be	elongs to the				
a.Organophosphates	b.Triazine	c.Organochlorine	d.Carbamate	Answer: c)			
10. Pesticides are harmful to	human beings as they	attack on					
a.uscular system		b.Nervous system					
c.Respiratory system		d.No effect Answer: b) and c		wer: b) and c)			
11: Aldicarb is the chemical	present in						
a.Aldrin	b.Endrin	c.Temik	d.DDT	Answer:a)			
12. Food adulteration is described as the activity of adulterating food or contaminating food ingredients by							
introducing a few compounds together referred to as the?							
a) Adulterants	b) Decomposed	c) Nutrients	d) Consumption	Answer: a.			
13. The addition of these adulterants lowers the value of food.							
a) Substance	b) Quality	c) Nutrients	d) Quantity	Answer: c.			
14. Which of the following is a coffee powder adulterant?							
a) Water and starch	n powder	b) Artificial co	olouring agents				

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / <mark>SCERT</mark> / DIET / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063 O CONTACT: 8072230063.

2024-25 SRIMAAN

c) Dyes, chemical	and Lead Chromate	d) Chico	Answer: d.					
15. This approach uses plasmolysis to dehydrate microbial cells, causing them to perish.								
a)Heating	b) Smoking	c) Pasteurisation	d) Sugaring	Answer: d.				
16. The term "added substance" refers to a substance that is added with the goal of affecting the nature and								
quality of food.								
a) Food poison	b) Food adulterant	c) Food material	d) Food contaminant	Answer: b.				
17. PFA is abbreviated as			(3)					
a) Prevention of Food	d Act	b) Prote	ection of Food Act					
c) Prevention of Food	d Adulteration Act	d) None	e of the above	Answer: c.				
18. Which of these is a Honey Adulterant?								
a) Washing soda, chalk powder. b) Molasses, dextrose, sugar and corn syrups.								
c) Pumpkin pulp, non-edible artificial colours, and flavours.								
d) Cassia bark	(A)			Answer: b.				
19. When does the PFA Act say that food is adulterated?								
a) If it is obtained from a diseased animal b) If spices are sold without their essence								
c) If any ingredient is	s injurious to health	d) All o	of the above	Answer : d.				
20. What is an example of a biological hazard?								
a) Salmonella	b) Antibiotics	c) Cleaners	d) Dirt	Answer: a.				
21. Adulterants are substances or low-quality goods that are intentionally added to food for economic or								
technical reasons.								

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063 O CONTACT: 8072230063.

2024-25 SRIMAAN

SRIMAAN

a) Can be true	or false b) Canr	ot say c) TR	JE d) FALS	SE	Answer: a.		
22. According to Section 3 of the Food Safety & Standards Act 2006, if a food item offered in the market							
contains any inferior	or cheaper compone	ents, whether ent	rely or partially, the	hat are harmful to or	ne's health, such		
products are referred	to as "food articles.	,					
a) Sub-standard	b) Misbran	ded c) Pa	tly sub-standard	d) Unsafe	Answer: d.		
23. Which one of the	following is a conta	minant?					
a).Urea	b).Pesticides	c). Iron filings	in tea d) Al	l of the mentioned	Answer: d.		
24. Adulteration occu	ers at what point in t	he process?	0	3			
a) Producer	b) Distributor	c) Retailer	d) All o	of the mentioned	Answer: d.		
25. What are the reas	ons for the addition	of adulterants?	12				
a) To extend the	e life of items. For i	nstance, urea	b) To im	prove flavor color a	and appearance		
c) To sell lesser quantity at the same price d) All the mentioned Answer: d.							
26.Adulterant detection methods include							
a) Visual tests	b) Chemical tests	c) Physical te	sts d) All of	f the mentioned	Answer: d.		
27 is a material that is added to food with the goal of changing its nature and quality.							
a) Food poison	b) Food adultera	nt c) Food con	taminant d) Fo	ood material	Answer: d.		
28. This statement about Potassium Bromate is/are true							
Potassium Bromate is a category 2B carcinogen							
Potassium Bromate improves dough strength, resulting in faster rising and a more consistent finish on baked							
goods.							
They are allowed up to 50 parts per million by the Food Safety and Standards Authority of India (FSSAI).							

A.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-

O CONTACT: 8072230063.

2024-25 SRIMAAN

- (a) 1,2
- (b) 1,3
- (c) 2,3
- (d) All of these

Answer: d.

29. According to Werner's theory of coordination compounds,

a. Primary valency is ionizable

- b.Secondary valency is ionizable
- c.Primary and secondary valencies are ionizable
- d. Neither primary nor secondary valency is ionizable

Ans: A.

30. Among the following which are ambidentate ligands?

- a.SCN
- b. NO<sub>3</sub>-
- $c.NO_2$
- $d.C_2O_4^{2-}$

a.(i) and (iii)

- b.(i) and (iv)
- c.(ii) and (iii)
- d.(ii) and (iv)

Ans: A. (i) and (iii)

 $31.A\ coordination\ compound\ CrCl_3.4H_2O\ gives\ a\ white\ precipitate\ of\ AgCl\ with\ AgNO_3.\ The\_molar$ 

conductance of the compound corresponds to two ions. The structural formula of the compound is

- a.[Cr(H<sub>2</sub>O)<sub>4</sub>Cl<sub>3</sub>]
- b.[Cr(H<sub>2</sub>O)<sub>3</sub>Cl<sub>3</sub>] H<sub>2</sub>O
- $c.[Cr(H_2O)_4Cl_2]Cl$
- $d.[Cr(H_2O)_4Cl] Cl_2$

Ans: C

32. Identify the statement which is not correct.

- a.Coordination compounds are mainly known for transition metals.
- b.Coordination number and oxidation state of metal are the same.
- c.A ligand donates at least one electron pair to the metal atom to form a bond.
- d.[Co(NH<sub>3</sub>)<sub>4</sub>Cl<sub>2</sub>]<sup>+</sup> is a heteroleptic complex.

Ans: B

33. The coordination number and the oxidation state of the element E in the complex [E(en)<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>)]NO<sub>2</sub> (where

(en) is ethylenediamine) are, respectively

- a.6 and 3
- b.6 and 2
- c.4 and 2
- d.4 and 3

Ans: A

34. The charges x and y on the following ions are,

 $[Co(NH_3)_2Cl_4]X$ 

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / SCERT / DIET / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE-FO CONTACT: 8072230063.

2024-25 SRIMAAN

[Fe(CN)<sub>6</sub>]Y

(Oxidation state of Co is +3 and Fe is +2 in their respective complexes.)

$$a.x = +1, y = -1$$

$$a.x = +1, y = -1$$
  $b.x = -1, y = +3$   $c.x = -1, y = -4$   $d.x = -2, y = -3$ 

$$c.x = -1, y = -4$$

$$d.x = -2, y = -3$$

Ans: C

35. Give a reason for the statement. '[Ni(CN)<sub>4</sub>]<sup>2-</sup> is diamagnetic while [NiCl<sub>4</sub>]<sup>2-</sup> is paramagnetic in nature.'

a.In  $[NiCl_4]^{2-}$ , no unpaired electrons are present while in  $[Ni(CN)_4]^{2-}$  two unpaired electrons are present.

b.In [Ni(CN)<sub>4</sub>]<sup>2</sup>-, no unpaired electrons are present while in [NiCl<sub>4</sub>]<sup>2</sup>- two unpaired electrons are present.

c.[NiCl<sub>4</sub>]<sup>2-</sup> shows dsp<sup>2</sup> hybridization hence it is paramagnetic.

d.[Ni(CN)<sub>4</sub>]<sup>2</sup>- shows sp<sup>3</sup> hybridization hence it is diamagnetic.

Ans: B

36. Among the following compounds which are both paramagnetic and coloured?

 $a.K_2Cr_2O_7$ 

 $b.[Co(SO)_4]$ 

 $c.(NH_4)_2[TiCl_6]$ 

 $d.K_3[Cu(CN)_4]$ 

Ans: B

37.CuSO<sub>4</sub>.5H<sub>2</sub>O is blue in colour while CuSO<sub>4</sub> is colourless due to

a. Presence of strong field ligand in CuSO<sub>4</sub>.5H<sub>2</sub>O.

b. Absence of water (ligand), d – d transitions are not possible in CuSO<sub>4</sub>.

c.Anhydrous CuSO<sub>4</sub> undergoes d – d transitions due to crystal field splitting.

d.Colour is lost due to the loss of unpaired electrons.

Ans: B

38.If Pt in PtCl<sub>4</sub>.2HCl has a secondary valence of 6, how many mols of AgCl will 1 mol of the compound precipitate with excess AgNO<sub>3</sub>?

a.0

b.1

c.2

d.4

Ans: A

39. What is the sum of the oxidation number of cobalt in  $[Co(H_2O)(CN)(en)_2]^{2+}$  and  $[CoBr_2(en)_2]+?$ 

a.+3

b.bZ+5

c.+4

d.+6

Ans: D

40. Which of the following is the correct formulation of the entity according to IUPAC?

SRIMAAN STUDY MATERIALS: <mark>TET</mark> / PG-TRB / <mark>UG-TRB (BT & BRTE & SGT)</mark>/ BEO & DEO RB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / <mark>GTTI</mark> / <mark>TNUSRB</mark> / TNPSC( GROUP IV/VAO/JSO) AVAILABLE-CONTACT: 8072230063.

O CONTACT: 8072230063.

## SRIMAAN COACHING CENTRE-TRICHY- TN-MAWS-SANITARY **INSPECTOR-QUESTION BANK-TO CONTACT:8072230063.**

2024-25 SRIMAAN

SRIMAAN

a.(Co(CN)6	$b.[Co(CN)_6]^{3-}$	c. $[Co (CN)_6]^{3-}$	$d.[Co(CN)_6]^{-3}$	Ans: B		
41.A coordinat	ion complex [MX <sub>2</sub> L <sub>2</sub> ], ha	s a CN=4 and two unions	lentate ligands X and L. W	hen the two L ligands		
are arranged opposite to each other in their geometry, it is called isomer.						
a.Cis	b.Trans	c.Fac	d.Mer	Ans: A		
42.Which of th	e following compounds h	as enantiomers?				
a.K <sub>3</sub> [Fe(CN	$b.K_3[Al(C_2O_4)_3]$	$c.K_2[Zn(OH)_4]$	$d.K_2[PdCl_4]\\$	Ans:B		
43. Which of th	e following compounds d	oes not have a coordin	ation isomer?			
a.[Ag(NH <sub>3</sub> )	) <sub>2</sub> ][Ag(CN) <sub>2</sub> ]	b.[Cr(NH <sub>3</sub>	) <sub>6</sub> ][Co(CN) <sub>6</sub> ]			
c.[Zn(NH <sub>3</sub> )	)4][PtCl4]	d.[Cu(NH <sub>3</sub>	s)4][FeCl4]	Ans: A		
44.Identify the	correct naming for K <sub>3</sub> [Fe	e(CN) <sub>6</sub> ].				
a.Tripotass	sium hexacyanidoferrate(	III) b.Potassiu	m hexacyanoferrate(III)			
c.Tripotass	sium hexacyanoferrate(III	d.Potassiun	n hexacyanidoferrate(III)	Ans: D		
45. Which of th	e following compounds h	as a meridional isomer	?			
a.[Fe(NO) <sub>5</sub> I	Br] <sup>+</sup>	b.[Al(CO)	3(NO <sub>2</sub> ) <sub>3</sub> ]			
c.[K(NH) <sub>3</sub> ) <sub>4</sub>	4(NO) <sub>2</sub> ] <sup>+</sup>	$d.[Fe(H_2O)]$	$(CO)_2(NO)_2^{3+}$	Ans: B		
46. A coordina	tion complex's core atom	/ion is also known as _				
a.Lewis bas	se	b.Lewis ac	id			
c.Bronsted-	-Lowry acid	d.Bronsted	l-Lowry base	Ans. B		
47. Which of the following statements about coordination compounds' bonding is incorrect?						
a.Crystal Fi	ield Theory	b.VSEPR	Theory			
c.Molecula	r Orbital Theory	d.Valence	Bond Theory	Ans. B		
CDIMA AN CTU	IDV MATERIALS.	DC TDD / UC TDD /	OT 0 DDTE 0 CCTV/ DFO	° DEO		
			BT & BRTE & SGT)/ BEO / TN-MAWS/ TNEB-ASS			
				فاختفانا المتحدد		

A.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063

2024-25 SRIMAAN

- 48. Which of the following statements about a charged coordinating entity is correct?
  - a. The sign of the charge is written after the number
  - b. The charge of the complex ion is written in parenthesis while naming the entity
  - c. The charge is indicated as a subscript outside the square bracket on the right
  - d. The charge on the complex ion is depicted along with the counter ion

Ans. A

- 49.At 25°C, which of the following will not give a positive test for Cl– with AgNO<sub>3</sub>(aq)?
  - a.COCl<sub>3</sub>.5NH<sub>3</sub>
- b.COCl<sub>3</sub>.6NH<sub>3</sub>
- c.COCl<sub>3</sub>.3NH<sub>3</sub>
- d.COCl<sub>3</sub>.4NH<sub>3</sub>

Ans. C

- 49. Pick out the correct statement with respect to [Mn(CN)J2
  - a.It is sp<sup>2</sup>d<sup>2</sup> hybridised, tetrahedral
- b.It is d²sp3 hybridised, octahedral
- c.It is dsp<sup>2</sup> hybridised, square planar
- d.It is sp3d² hybridised octahedral

Ans. B

- 50. Which of the following is the coordination entity in  $K_2[Zn(OH)_4]$ ?
  - $a.K^+$
- $h Zn^{2+}$
- c.OH-
- $d.[Zn(OH)_4]^{2-}$

Ans. D

- 51. Which of the following cannot be a ligand?
  - $a.Ni^{2+}$
- $b.Cl^{-}$
- c.H<sub>2</sub>O
- d.NH<sub>3</sub>

Ans. A

**51.**When 0.1 mol CoCl3(NH3)5 is combined with excess AgNO3, then 0.2 mol AgCl is obtained. The

conductivity of the solution suits the

- a.1:3 electrolyte b.1:1 electrolyte c.3:1 electrolyte
- d.1:2 electrolyte

Answer: (d)

**52.** A chelating agent has two or more than two donor atoms to bind to a single metal ion. Which of the following

is not a chelating agent?

- a.Thiosulphato
- b.Oxalato
- c.Glycinato
- d.Ethane-1,2-diamine

Answer: (a)

**53.**IUPAC name of  $[Pt(NH_3)_2Cl(NO_2)]$  is

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / <mark>GTTI</mark> / <mark>TNUSRB</mark> / TNPSC( GROUP IV/VAO/JSO) AVAILABLE-CONTACT: 8072230063.

O CONTACT: 8072230063.

## SRIMAAN COACHING CENTRE-TRICHY- TN-MAWS-SANITARY **INSPECTOR-QUESTION BANK-TO CONTACT:8072230063.**

2024-25 SRIMAAN

a.Platinum diamminechloronitrite			b.Chloroni	trito-N-ammi	neplatinum (II)	
c.Diamminechloridonitrito-N-platinum (II)			d.Diammir	nechloronitrit	o-N-plantinate (II)	Answer: (c)
<b>54.</b> In the complex [E(en	n)2(C2O4)]NO2 (wh	nere (en) is e	thylenedia	mine)	_are the coordinati	on number
and the oxidation state of	of the element 'E' re	spectively.				
a.6 and 2 b.	.2 and 2	c.4 and 3		d.6 and 3		Answer: (d)
<b>55.</b> The sum of coordinate	tion number and oxi	idation numl	per of the m	netal M in the	complex [M(en) <sub>2</sub> (	C <sub>2</sub> O <sub>4</sub> )]Cl
(where (en) is ethylened	liamine) is			0		
a.9 b	0.6	c.7		d.8		Answer: (a)
<b>56.</b> Some salts containing	g two different meta	allic element	s give test	for only one o	of them in solution,	such salts are
a.double salts		b.normal s	alts			
c.complex salts		d.None of	these			Answer: (c)
<b>57.</b> An example of a sign	na bonded organom	etallic comp	ound is			
a.Grignard reage	ent	b.Ferrocen	e			
c.Cobaltocene	ath	d.Rutheno	cene			Answer: (a)
<b>58.</b> Iron carbonyl, Fe(CC	)) <sub>5</sub> is					
a.Tetranuclear	,	b.Mononuo	clear			
c.Dinuclear		d.Trinuclea	ar			Answer: (b)
<b>59.</b> The type of isomerisa	m shown by the con	nplex [CoCl	<sub>2</sub> (en) <sub>2</sub> ] is			
a.Geometrical iso	omerism	b.Coordina	ation isome	rism		
c.Linkage isome	rism	d.Ionizatio	n isomerisr	n		Answer: (a)
<b>60.</b> Which of the follow	ing elements do not	form a com	plex with E	EDTA?		
SRIMAAN STUDY MAT TRB-POLYTECHNIC-LEC						SRIMAAN

A.E/J.A / <mark>SCERT</mark> / DIET / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063

2024-25 SRIMAAN

	a.Ca	b.Mg	c.Be	d.Sr	Answer: (c)	
<b>61</b> TP1		C				
<b>61.</b> Th	ne sum of the metal M'	's coordination number	and oxidation number	er in the complex $[M(en)_2]$	$\mathbb{C}_2\mathbb{O}_4$ ]. They're	
	(a) 7	(b) 8	(c) 9	(d) 6	Answer: (c)	
<b>62.</b> At	25°C, which of the fol	llowing will not give a	positive test for Cl– w	vith AgNO <sub>3</sub> (aq)?		
	(a) COCl <sub>3</sub> .5NH <sub>3</sub>	(b) COCl <sub>3</sub> .6NH <sub>3</sub>	c.(c) COCl <sub>3</sub> .3NH <sub>3</sub>	d.(d) COCl <sub>3</sub> .4NH <sub>3</sub>	Answer: (c)	
<b>63.</b> Wl	nich of the following c	laims regarding [CO(C	$N)_6]^{3-}$ is correct			
	(a) It has 4 unpaired	electron, high spin	(b) No unpaired	electron, high spin		
	(c) No unpaired elect	tron, low spin	(d) 4 unpaired e	lectron, low spin	Answer: (c)	
<b>64</b> .Wl	nen AgNO3 in excess is	s treated with complex	es: COCl3.6NH3 , CO	Cl <sub>3</sub> .5NH <sub>3</sub> and C0Cl <sub>3</sub> .4NH	3, the right	
order	of the stoichiometries	of AgCl produced is Co	OCl <sub>3</sub> .6NH <sub>3</sub> , C0Cl <sub>3</sub> .5N	NH <sub>3</sub> , and C0Cl <sub>3</sub> .4NH <sub>3</sub> , resp	pectively.	
	(a) 3AgCl, lAgCl, 2A	AgCl	(b) 3AgCl, 2AgO	Cl, 1AgCl		
	(c) 2AgCl, 3AgCl, 2A	AgCl	(d) lAgCl, 3AgC	Cl, 2AgCl	Answer: (b)	
<b>65.</b> Identify the right statement in relation to [Mn(CN)J <sup>2-</sup> ] is						
	(a) It is sp <sup>2</sup> d <sup>2</sup> hybridia	zed, tetrahedral	(b) It is d <sup>2</sup> sp <sup>3</sup> hy	bridized, octahedral		
	(c) It is dsp² hybridiz	ed, square planar	(d) It is sp3d² hy	bridized octahedral	Answer: (b)	
<b>66.</b> Isomerism in the face and along the meridian will be demonstrated						
	(a) [Co(NH <sub>3</sub> ) <sub>3</sub> Cl <sub>3</sub> ]	J	(b) [Co(NH3)4	4Cl <sub>2</sub> ] Cl		
	(c) [Co(en) <sub>3</sub> ] Cl <sub>3+</sub>		(d) [Co(NH <sub>3</sub> )5	Cl] Cl <sub>2</sub>	Answer: (a)	
<b>67.</b> Which of the following has the highest molar conductivity?						

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063 O CONTACT: 8072230063.

2024-25 SRIMAAN

(a)  $[Pt(NH_3)_2 Cl_2]$ 

(b)  $[CO(NH_3)4 Cl_2] Cl$ 

(c)  $K_4[Fe(CN)_6]$ 

(d)  $[Cr(H_2O)_3] Cl_3$ 

Answer: (c)

**68.** (At No. Cr = 24, Mn = 25, Fe = 26, Co = 27) is the pair with the same magnetic moment.

- (a)  $[Cr(H_2O)_2]^{2+}$  and  $[CoCl_4]^{2-}$
- (b)  $[Cr(H_2O)_6]^{2+}$  and  $[Fe (H_2O)_6]^{2+}$
- (c)  $[Mn(H_2O)_6]^{2+}$  and  $[Cr(H_2O)_6]^{2+}$
- (d)  $[COCl_4]2$ -and  $[Fe(H_2O)_6]^{2+}$

Answer: (b)

69. The correct order of field strength among the ligands NH<sub>3</sub>, en, CN, and CO is

(a)  $NH_3 < en < CN - < CO$ 

(b)  $CN - < NH_3 < CO < en$ 

(c) en < CN-< NH $_3$  < CO

(d)  $CO < NH_3 < en < CN-$ 

Answer:(c)

**70.**The chelate effect is the stabilization of coordination molecules caused by chelation. Which of the following complex species is the most stable?

(a) [Fe(CO)<sub>5</sub>]

(b)  $[Fe(CN)_6]^{3-}$ 

(c)  $[Fe(C_2O_4)3]^{3-}$ 

(d)  $[Fe(H_2O)_6]^{3+}$ 

Answer: (c)

**71.**Coordination compounds exhibit isomerism due to the presence of ambidentate ligands.  $[Pd(C_6H_5)_2(SCN)_2]$  and  $[Pd(C_6H_5)_2(NCS)_2]$  are two types of palladium complexes.

(a) linkage isomers

(b) coordination isomers

(c) ionization isomers

(d) geometrical isomers

Answer: (a)

72. A chelating agent binds to a single metal ion with two or more donor atoms. Which of the following is a chelating agent and which is not?

(a) thiosulphato

(b) oxalate

(c) glycinato

(d) ethane-1, 2-diamine

Answer: (a)

**73.**IUPAC name of [Pt(NH<sub>3</sub>)<sub>3</sub> Br (NO<sub>2</sub>) Cl] Cl is

SRIMAAN STUDY MATERIALS: TET / PG-TRB / UG-TRB (BT & BRTE & SGT)/ BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / SCERT / DIET / GTTI / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE-TO CONTACT: 8072230063.

2024-25 SRIMAAN

- (a) triammine chloro dibromide platinum (IV) chloride
- (b) triammine chloridobromidonitrochloride- platinum (IV) chloride
- (c) triammine bromido chlorido nitro platinum (IV) chloride
- (d) triammine nitro chloro bromo platinum (IV) chloride

Answer: (c)

- **74.**Trunbull's blue is
  - (a) Ferricyanide

(b) Ferrous ferricyanide

(c) Ferrocyanide

(d)  $Fe_3[Fe(CN)_6]_4$ 

Answer: (b)

**75.**Primary and secondary valency of Pt in [Pt(en)<sub>2</sub>Cl<sub>2</sub>] are

(a) 4, 4

- (b) 4, 6
- (c) 6, 4
- Answer: (d)

TO BE CONTINUED.....

STUDY MATERIALS WITH Q.BANK AVAILABLE

TN-MAWS

CIVIL/ MECHANICAL /ELECTRICAL (EEE & ECE )/ TOWN PLANNING/ ARCHITECTURE / PUBLIC HEALTH & SANITATION

SANITARY INSPECTOR-QUESTION BANK AVAILABLE.

TRB-ASSISTANT PROFESSOR-(ALL SUBJECT) STUDY MATERIALS **AVAILABLE.** 

> TO CONTACT: 8072230063. SRIMAAN COACHING CENTRE-TRICHY.

SRIMAAN STUDY MATERIALS: <mark>TET</mark> / PG-TRB / <mark>UG-TRB (BT & BRTE & SGT)</mark> / BEO & DEO TRB-POLYTECHNIC-LECTURER / COMPUTER INSTRUCTOR / TN-MAWS/ TNEB-ASSESSOR-A.E/J.A / <mark>SCERT</mark> / <mark>DIET</mark> / <mark>GTTI</mark> / TNUSRB / TNPSC( GROUP IV/VAO/JSO) AVAILABLE- 8072230063 O CONTACT: 8072230063.

SRIMAAN COACHING CENTRE-TRICHY- TET/PG-TRB / UG-TRB BEO/ DEO/TRB-POLY/ASST.PROF/TN-MAWS /TNEB /SCERT STUDY MATERIALS AVAILABLE- CONTACT:8072230063.

2024-25 SRIMAAN

TN-MAWS-MUNICIPAL ADMINISTRATION & WATER SUPPLY DEPARTMENT-(DEGREE & DIPLOMA) STUDY MATERIALS AVAILABLE.

TRB-ASSISTANT PROFESSORS IN GOVERNMENT ARTS AND SCIENCE COLLEGES & COLLEGES OF EDUCATION STUDY MATERIALS AVAILABLE.

## **UG-TRB MATERIALS**

**GRADUATE TEACHERS / BLOCK RESOURCE TEACHER EDUCATORS (BRTE) & SGT** 

- UG TRB: TAMIL MATERIAL WITH QUESTION BANK.
- UG TRB: ENGLISH STUDY MATERIAL +Q. BANK.
- UG-TRB: MATHEMATICS MATERIAL WITH Q. BANK (E/M)
- UG TRB: PHYSICS MATERIAL WITH QUESTION BANK (E/M)
- UG TRB: CHEMISTRY MATERIAL + QUESTION BANK (E/M)
- UG TRB: HISTORY MATERIAL + Q.BANK (E/M)
- UG TRB: ZOOLOGY MATERIAL + QUESTION BANK (E/M)
- UG TRB: BOTANY MATERIAL +QUESTION BANK (T/M& E/M)
- UG TRB: GEOGRAPHY STUDY MATERIAL (E/M)

SCERT/DIET/GTTI (LECTURER) STUDY MATERIAL AVAILABLE.
TNPSC-(CESE)-JSO STUDY MATERIAL AVAILABLE.

TANGEDCO (TNEB) (T/M & E/M)

ASSESSOR/ASSISTANT ENGINEER (A.E)/JUNIOR ASSISTANT (ACCOUNTS)

SRIMAAN COACHING CENTRE-TRICHY- TET/PG-TRB / UG-TRB BEO/ DEO/TRB-POLY/ASST.PROF/TN-MAWS /TNEB /SCERT STUDY MATERIALS AVAILABLE- CONTACT:8072230063.

2024-25 SRIMAAN

## PG-TRB MATERIALS

PG-TRB: COMPUTER INSTRUCTOR-GRADE-I (NEW SYLLABUS)-2024-2025 STUDY MATERIAL WITH Q.BANK AVAILABLE

- PG TRB: TAMIL STUDY MATERIAL +QUESTION BANK (T/M)
- > PG TRB: ENGLISH MATERIAL WITH QUESTION BANK.
- PG-TRB: MATHEMATICS MATERIAL WITH Q.BANK (E/M)
- PG TRB: PHYSICS MATERIAL WITH QUESTION BANK (E/M)
- PG TRB: CHEMISTRY MATERIAL + QUESTION BANK (E/M)
- PG TRB: COMMERCE MATERIAL WITH Q.BANK (T/M)&(E/M)
- PG TRB:ECONOMICS MATERIAL+Q. BANK (T/M & E/M)
- PG TRB: HISTORY MATERIAL + Q. BANK (T/M & E/M)
- PG TRB: ZOOLOGY MATERIAL + QUESTION BANK (E/M)
- PG TRB: BOTANY MATERIAL +QUESTION BANK (T/M& E/M)
- PG TRB: GEOGRAPHY STUDY MATERIAL (E/M)

TNPSC-DEO (District Educational Officer(Group – I C Services)
(TAMIL & ENGLISH MEDIUM) STUDY MATERIAL AVAILABLE.

TRB-BEO (Block Educational Officer)

(TAMIL & ENGLISH MEDIUM) STUDY MATERIAL AVAILABLE.

TRB-POLYTECHNIC LECTURER-(NEW SYLLABUS)
STUDY MATERIALS AVAILABLE

MATHEMATICS STUDY MATERIAL with Question Bank.

SRIMAAN COACHING CENTRE-TRICHY- TET/PG-TRB / UG-TRB BEO/DEO/TRB-POLY/ASST.PROF/TN-MAWS /TNEB /SCERT STUDY MATERIALS AVAILABLE- CONTACT:8072230063.

2024-25 SRIMAAN

- ENGLISH STUDY MATERIAL with Question Bank.
- PHYSICS STUDY MATERIAL with Question Bank.
- CHEMISTRY STUDY MATERIAL with Question Bank.
- MODERN OFFICE PRACTICE STUDY MATERIAL with Q.B.
- COMPUTER SCIENCE STUDY MATERIAL with Question Bank.
- INFORMATION TECHNOLOGY STUDY MATERIAL with Q.Bank.
- ECE STUDY MATERIAL with Question Bank.
- EEE STUDY MATERIAL With Question Bank.
- MECHANICAL STUDY MATERIAL With Question Bank.
- CIVIL STUDY MATERIAL With Ouestion Bank.
- EIE STUDY MATERIAL with Question Bank.
- ICE STUDY MATERIAL with Question Bank.

10% Discount for all materials. Materials are sending through

COURIER.

TO CONTACT
SO72230063
SRIVIAAN