M.Sc. (Chemistry) Entrance Test, 2022

Deviations from ideal behavior will be more if the gas is subjected to :

1.

	(A)	high temperature			
	(B)	low pressure			
	(C)	high temperature and low press	ure		
	(D)	low temperature and high press	ure		
2.	The	critical temperature of a gas is	that to	emperature :	
	(A)	above which it can no longer r	remain	in the gaseous state	
	(B)	above which it cannot be lique	fied b	y pressure	
	(C)	at which it solidifies			
	(D)	at which volume of gas become	es zer	0	
3.	If a	gas is heated at constant pressu	ıre, its	density:	
	(A)	will increase			
	(B)	will decrease			
	(C)	will remain unchanged			
	(D)	may increase or decrease			
4.	The	rmochemistry is the study of rela	ationsh	nip between heat energy and :	
	(A)	chemical energy	(B)	activation energy	
	(C)	friction energy	(D)	none of these	
(3)N	Л-CL	-13(CHEM)	1		P.T.O.

	(A)	ice	(B)	liquid water
	(C)	steam	(D)	randomness is same in all
6.	In v	which of the following change en	tropy	decreases ?
	(A)	crystallization of sucrose from	solutio	n
	(B)	dissolving sucrose in water		
	(C)	melting of ice		
	(D)	vaporization of camphor		
7.	A p	rocess is spontaneous at all temp	eratur	res if:
	(A)	$\Delta H > 0$ and $\Delta S > 0$	(B)	$\Delta H > 0$ and $\Delta S < 0$
	(C)	ΔH = 0 and ΔS < 0	(D)	$\Delta H<0$ and $\Delta S>0$
8.	Phas	se rule states :		
	(A)	P + F = C + 2	(B)	P + F = C - 2
	(C)	P + C = F + 2	(D)	P + F + C = 2
9.	Whi	ch has the highest depression in	freezi	ng point at one atmosphere ?
	(A)	0.1M NaCl solution	(B)	0.1M BaCl ₂ solution
	(C)	0.1M sugar solution	(D)	0.1M FeCl ₃ solution
10.	The	solution in which the blood cells	retair	n their normal form are with regard to
	the	blood:		
	(A)	isotonic	(B)	hypertonic
	(C)	hypotonic	(D)	none of these
(3)N	∕I-CL	-13(CHEM)	2	

The least random state of water system is:

5.

11.	The anhydride of HNO ₃ is :		
	(A) N ₂ O ₃	(B)	N_2O_5
	(C) NO	(D)	P_2O_5
12.	The solubility of AgCl in a solution	of co	mmon salt is lower than in water. This
	is due to:		
	(A) salt effect	(B)	increase in ionic conc. product
	(C) common ion effect	(D)	complex formation
13.	The concept of $t_{1/2}$ is useful for the	e react	tions of:
	(A) zero order	(B)	first order
	(C) second order	(D)	all of these
14.	Which is <i>correct</i> statement about p	roton	?
	(A) It is nucleus of deuterium		
	(B) It is ionized hydrogen molecul	e	
	(C) It is ionized hydrogen atom		
	(D) It is α -particle		
15.	The nitrogen atom has 7 protons a	nd 7	electrons. The nitride ion will have :
	(A) 10 protons and 7 electrons		
	(B) 7 protons and 10 electrons		
	(C) 4 protons and 7 electrons		
	(D) 4 protons and 10 electrons		
/2\I	M-CL-13(CHEM)	3	P.T.O.
(3)1	VI-OL-13(OHLIVI)	J	F.1.U.

16.	Which of the following statements	does not form part of Bohr's model of the			
	hydrogen atom ?				
	(A) Energy of an electron in the	orbit is quantized			
	(B) The electron in the orbit near	er to the nucleus has the lowest energy			
	(C) Electrons revolve in different	orbit nucleus			
	(D) The position and velocity of t	he electron in the orbit cannot be determined			
	simultaneously				
17.	The quantum number not obtained	from the Schrödinger's wave equation is :			
	(A) <i>n</i>	(B) 1			
	(C) <i>m</i>	(D) s			
18.	The shape of an orbital is given b	y :			
	(A) spin quantum number	(B) magnetic quantum number			
	(C) azimuthal quantum number	(D) principal quantum number			
19.	Any p-orbital can accommodate up	oto :			
	(A) 4-electrons				
	(B) two electrons with parallel sp	ins			
	(C) 6-electrons				
	(D) two electrons with opposite s	pins			
20.	de-Broglie equation is :				
	(A) $\lambda = h/mv$	(B) $\lambda = mv/h$			
	(C) $\lambda = hmv$	(D) $\lambda = hv/m$			
(3)N	И-CL-13(CHEM)	4			

21.	Which of the following rules could ex	kplain	the presence of three unpaired electrons		
	in N-atom ?				
	(A) Hund's rule				
	(B) Aufbau's principle				
	(C) Heisenberg's uncertainty principle				
	(D) Pauli's exclusion principle				
22.	The Aufbau principle implies that which:	a ne	w electron will enter an orbital for		
	(A) n has a lower value	(B)	l has a lower value		
	(C) $(n + 1)$ value is maximum	(D)	(n + 1) value is minimum		
23.	Which has minimum ionic radius ?				
	(A) N^{3-}	(B)	K ⁺		
	(C) Na ⁺	(D)	F^-		
24.	The second ionization energy is ma	ximun	n for:		
	(A) Boron	(B)	Beryllium		
	(C) Aluminium	(D)	Magnesium		
25.	The amount of energy released on t	he ado	dition of an electron in outermost shell		
	of an atom is called:				
	(A) Ionization enthalpy	(B)	Hydration enthalpy		
	(C) Electronegativity	(D)	Electron gain enthalpy		
(3)N	И-CL-13(CHEM)	5	P.T.O.		

26.	To which of the following ato difficult ?	m, th	e attachment of electron is most
	(A) Radon	(B)	Nirogen
	(C) Oxygen	(D)	Radium
27.	In which of the following pair, both is larger in size than the second?	the sp	ecies are isoelectronic but the first one
	(A) S^{2-} , O^{2-}	(B)	CΓ, S ^{2−}
	(C) F ⁻ , Na ⁺	(D)	N ³ -, P ³ -
28.	In which of the following molecule	s, bon	d angle is maximum ?
	(A) CH ₄	(B)	H_2O
	(C) NH ₃	(D)	CO_2
29.	The H-bond is strongest in:		
	(A) O-HS	(B)	S-HO
	(C) F-HF	(D)	F-HO
30.	Which one of the following is para	magne	tic ?
	(A) N ₂	(B)	NO
	(C) CO	(D)	O_3
31.	Which of the following shows H-bo	onding	?
	(A) o-nirophenol	(B)	Water
	(C) Ethyl acetoacetate	(D)	All of these
(S)N	Л-CL-13(CHEM)	6	

	(A) 1,4-Dichlorobenzene	(B)	cis-1,2-Dichloroethene
	(C) trans-1,2-Dichloroethene	(D)	None of these
33.	The DM of o , m and p -dichloroben	zene v	will be in the order:
	(A) $o > p > m$	(B)	p > o > m
	(C) $m > o > p$	(D)	o > m > p
34.	The crystal lattice of ice is mostly	formed	d by:
	(A) ionic forces		
	(B) covalent bonds		
	(C) intramolecular H-bonds		
	(D) covalent as well as H-bonds		
35.	In NaCl crystal, the number of next	neare	est neighbours of each sodium ion is :
	(A) 8C □ ions	(B)	12 Na ⁺ ions
	(C) 12CT ions	(D)	24Cl ions
36.	Doping of AgCl crystals with CdCl	resul	Its in:
	(A) Frenkel defect	(B)	Schottky defect
	(C) Substitutional cation vacancy	(D)	Formation of F-centres
37.	Space lattice of CaF ₂ is:		
	(A) body centred cubic	(B)	face centred cubic
	(C) simple cubic	(D)	hexagonal close packed
(3)1	M-CL-13(CHEM)	7	P.T.O.

32. Dipole moment is shown by:

38.	According to HSAB concept hard acid has:			
	(A) small ionic radius	(B)	high positive charge	
	(C) low electronegativity	(D)	all of these	
39.	Which of the following statements is	s <i>true</i>	regarding HSAB principle ?	
	(A) a hard acid prefers to bind with	h hard	l base	
	(B) the term symbiosis was first us	ed in	chemistry by Jorgensen	
	(C) HSAB principle was given by	Pearso	on	
	(D) All are correct			
40.	Which of the following compounds	decon	npose on heating ?	
	(A) NaHCO ₃	(B)	Na ₂ CO ₃	
	(C) CaCO ₃	(D)	K ₂ SO ₄	
41.	Among the nitrates of alkali metals w	hich o	one can be decomposed to its oxide on	
	strong heating ?			
	(A) NaNO ₃	(B)	KNO ₃	
	(C) LiNO ₃	(D)	all of these	
42.	The anhydrous calcium sulphate is o	called	:	
	(A) gypsum	(B)	anhydrite	
	(C) lime	(D)	plaster of Paris	
(3)N	M-CL-13(CHEM)	8		

43.	Vegetable colouring matter in presen	ce of	moisture is bleached by SO ₂	due to:
	(A) oxidation	(B)	reduction	
	(C) sulphonation	(D)	unsaturation	
44.	Which bond has the greatest polarity	y ?		
	(A) H-Cl	(B)	H-Br	
	(C) HCl	(D)	H-F	
45.	Which of the following statements i	s <i>cori</i>	ect ?	
	(A) He has the lowest BP			
	(B) He is monoatomic			
	(C) Liquid He has almost zero visc	osity		
	(D) all are correct			
46.	HgI ₂ on addition of excess of KI fo	rms :		
	(A) Hg_2I_2	(B)	Нg	
	(C) K ₂ HgI ₄	(D)	$Hg + KI_3$	
47.	Zinc white is a better white pigmen	t than	lead white because :	
	(A) it has more covering powder the	nan lea	nd white	
	(B) it is not blackened by the action	n of l	H_2S	
	(C) it is soluble in water			
	(D) it becomes yellow when heated			
(3)1	M-CL-13(CHEM)	9		P.T.O.

48.	Substance soluble in ammonia is :		
	(A) $Cu(OH)_2$	(B)	Al(OH) ₃
	(C) $Cr(OH)_3$	(D)	Fe(OH) ₃
49.	Magnetic moment of [Ag(CN) ₂] is	zero. H	Now many unpaired electrons are there?
	(A) Zero	(B)	4
	(C) 3	(D)	1
50.	The correct IUPAC name of $K_2[Zn]$	(OH) ₄]	is:
	(A) Potassium tetrahydroxy zinc (I	I)	
	(B) Potassium tetrahydroxozincate	(II)	
	(C) Potassium tetrahydroxy zincate	(IV)	
	(D) Potassium hydroxo zinc (II)		
51.	Which one of the following is resp	onsible	for the brown colour in the ring test
	for a nitrate ?		
	(A) $[Fe(H_2O)_5NO]^{2+}$	(B)	[Fe(CN) ₅ NO] ²⁻
	(C) $[Fe(NO_2)_6]^{4-}$	(D)	[Fe(H ₂ O) ₅ NO ₂]+
52.	Which of the following ions can be	e sepai	rated by using NH ₄ Cl and NH ₄ OH ?
	(A) AI^{+3} & Ba^{+2}	(B)	Cr ⁺³ & Co ⁺²
	(C) Both (A) and (B)	(D)	None of these
53.	In solid CuSO ₄ .5H ₂ O copper is coo	ordinate	ed to :
	(A) 4 water molecules	(B)	5 water molecules
	(C) one sulphate molecule	(D)	one water molecule
(3)N	Л-CL-13(CHEM)	10	

	(C) $[Mn(CN)_6]^{3-}$	(D)	$[\mathrm{Co(CN)}_6]^{3-}$
55.	Complex ions [Ni(CN) ₆] ⁴⁻ , [Ni(Cl) ₆]] ^{4–} sin	nilar in their properties :
	(A) oxidation state and geometry		
	(B) coordination number, EAN		
	(C) magnetic moment and geometr	y	
	(D) all of the above		
56.	A red solid is insoluble in water bu	t solu	ble in the presence of KI. Heating the
	red solid in a test tube result in the	forma	tion of yellow sublimate in the part of
	test tube. The red solid is:		
	(A) Pb ₃ O ₄	(B)	HgI_2
	(C) HgO	(D)	$(NH_4)_2Cr_2O_7$
57.	Which of the following pairs of ca	itions	can be separated by passing H ₂ S gas
	through the mixture in the presence	of 0.	2M HCl ?
	(A) Pb^{+2} , Cu^{+2}	(B)	Ag^+, Cu^{+2}
	(C) Bi^{+3} , Cd^{+2}	(D)	Ag ⁺ , Cu ⁺² Zn ⁺² , Cu ⁺²
58.	Acidic K ₂ Cr ₂ O ₇ reacts with H ₂ S to	produ	ice:
	(A) Cr ⁺³ ions & S	(B)	Cr ⁺³ ions & SO ₂
	(C) Cr ⁺⁶ ions & S	(D)	Cr ⁺³ ions & H ₂ SO ₄
(S)	M-CL-13(CHEM)	11	P.T.O.

54. Which of the following has lowest value of magnetic behaviour ?

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

(A) $[Cr(CN)_6]^{3-}$

59.	Whi	ich of the following are coloured	d ?	
	(A)	PbCl ₂ & PbI ₂	(B)	AgCl & PbI ₂
	(C)	AgI & PbI ₂	(D)	PbCl ₂ & AgCl
60.	Whi	ich of the following reagents ca	in be	used to distinguish between SO ₂ and
	CO	?		
	(A)	Zinc nitroprusside paste in wat	er	
	(B)	Acidified dichromate paper		
	(C)	Potassium iodate and Starch		
	(D)	All of the above		
61.	Alk	yl cyanide (R-CN) and alkyl iso	cyanide	e (R-NC) are :
	(A)	Tautomers	(B)	Metamers
	(C)	Functional isomers	(D)	Geometrical isomers
62.	Res	onance is due to:		
	(A)	Delocalization of sigma electro	ns	
	(B)	Delocalization of pi electrons		
	(C)	Migration of H-atoms		
	(D)	Migration of protons		
63 .	Glu	cose and fructose are :		
	(A)	chain isomers	(B)	position isomers
	(C)	functional isomers	(D)	optical isomers
(3)N	/I-CI	-13(CHEM)	12	

64.	The stabilization due to resonan	ice is max	imum in :
	(A) Cyclohexane	(B)	Cyclohexa-1,3,5-triene
	(C) Cyclohexene	(D)	Cyclohexa-1,2-diene
65.	Lactic acid exhibit optical activi	ity in :	
	(A) Crystalline state	(B)	Liquid state
	(C) Solution	(D)	All of these
66.	The first Nobel Prize in Chemis	try awarde	ed to:
	(A) Pasteur	(B)	Vant Hoff
	(C) Rutherford	(D)	Madam Curie
67.	The gas which is used for artifi	icial ripeni	ng of fruits is :
	(A) C_2H_6	(B)	C_2H_2
	(C) C ₂ H ₄	(D)	Marsh gas
68.	When propyne is treated with ac	queous H ₂	SO ₄ in presence of HgSO ₄ , the major
	product is:		
	(A) Propanal	(B)	Propyl hydrogen sulphate
	(C) Acetone	(D)	Propanol
69.	Nobel's oil is:		
	(A) fire extinguisher	(B)	explosive
	(C) insecticide	(D)	rodenticide
(3)	M-CL-13(CHEM)	13	P.T.O.

70.	The	following reaction is:		
	RO	$Na + XR' \longrightarrow R-O-R' + NaX$	X	
	(A)	Kiliani synthesis		
	(B)	Williamson's synthesis		
	(C)	Reimer-Tiemann's reaction		
	(D)	Tischenko reaction		
71.	Whi	ich compound will <i>not</i> reduce F	ehling	's solution ?
	(A)	Ethanal	(B)	Methanal
	(C)	Benzaldehyde	(D)	Fructose
72.	Whi	ich acid is present in vinegar ?		
	(A)	CH ₃ COOH	(B)	HCl
	(C)	Citric acid	(D)	Tartaric acid
73.	Whi	ich one of the following aldehyd	les giv	ves Cannizzaro's reaction when heated
	with	n strong alkali ?		
	(A)	Benzaldehyde	(B)	Acetaldehyde
	(C)	Propenaldehyde	(D)	All of these
74.	Prod	duction of Caprolactum, which	is a	raw material and monomer unit of
	Nylo	on-6, is done with:		
	(A)	Beckmann's rearrangement	(B)	Benzoin condensation
	(C)	Claisen condensation	(D)	Wittig reaction
(3)N	/I-CL	-13(CHEM)	14	

75.	A plastic Bakelite is a compound of HCHO with :				
	(A) Benzene	(B)	Ammonia		
	(C) Phenol	(D)	Hydrocarbon		
76.	Diels-Alder reaction is:				
	(A) used to produce six membered	d ring			
	(B) stereospecific in nature				
	(C) rate of reaction increases if el	ectron	donating groups are on diene	S	
	(D) all of the above				
77.	When wine is put in air, it become	es sour	due to:		
	(A) oxidation of C ₂ H ₅ OH	(B)	reduction of C ₂ H ₅ OH		
	(C) formation of C ₂ H ₅ NH ₂	(D)	dissolution of CO ₂		
78.	An alkyne which, when added to	a so	lution of AgNO ₃ in alcohol	forms a	
	precipitate. The alkyne is a:				
	(A) Terminal alkyne	(B)	Non-terminal alkyne		
	(C) Both (A) and (B)	(D)	None of these		
79.	When aniline is heated with benza	ldehyde	, the product is :		
	(A) Benzoin	(B)	Schiff's base		
	(C) Azoxy benzene	(D)	Unsaturated acid		
80.	Which is sweetest among sugars ?				
	(A) Sucrose	(B)	Fructose		
	(C) Glucose	(D)	Lactose		
(3)	M-CL-13(CHEM)	15		P.T.O.	

81.	Prot	ein is an important constituent	of our	diet. It	functions	mainly	as :
	(A)	a source of energy					
	(B)	construction material					
	(C)	reserve food					
	(D)	shock absorber					
82.	Oils	are:					
	(A)	Phospholipids	(B)	Steroid	S		
	(C)	Liquid fats	(D)	All of	these		
83.	Deg	ree of unsaturation in oils and	fats is	measure	ed in term	s of:	
	(A)	Saponification value	(B)	Iodine	value		
	(C)	Acetyl value	(D)	R/M v	alue		
84.	Whi	ch one is <i>not</i> present in RNA	?				
	(A)	Uracil	(B)	Thymii	ne		
	(C)	Ribose	(D)	Phosph	ate		
85.	The	helical structure of protein is s	stabilize	ed by :			
	(A)	Peptide bonds	(B)	Hydrog	gen bonds		
	(C)	Dipeptide bonds	(D)	van de	r Waal's f	orces	
86.	Alka	aline hydrolysis of an ester is c	alled:				
	(A)	Neutralisation	(B)	Esterifi	ication		
	(C)	Polymerisation	(D)	Saponi	fication		
(3)N	1-CL	-13(CHEM)	16				

87.	The	The order of basic strength of heterocyclic compounds is :				
	(A)	(A) pyridine > pyrrole > furan > thiophene				
	(B)	pyrrole > pyridine > furan > t	hiophe	ne		
	(C)	furan > pyrrole > pyridine > t	hiophe	ne		
	(D)	thiophene > pyrrole > furan >	pyridi	ne		
88.	Bee	wax is:				
		tripalmitin	(B)	cetyl palmitate		
		myricyl palmitate	(D)	myricyl cerotate		
89.	The	formation of cyanohydrin from	a keto	one is an example of:		
	(A)	Nucleophilic substitution				
	(B) Nucleophilic addition					
	(C)	Electrophilic substitution				
	(D)	Electrophilic addition				
90.	Whi	ch of the following five membe	ered rii	ngs is most resonance stabilised ?		
	(A)	Furan	(B)	Pyrrole		
	(C)	Thiophene	(D)	Pyridine		
91.	Five	membered rings come under w	hich ca	ategory of heterocycle classification o	n	
	the	basis of chemical behaviour ?				
	(A)	excessive heterocycle				
	(B)	deficient heterocycle				
	(C)	equivalent heterocycle				
	(D) cannot say about five membered rings					
(3)N	/I-CL	-13(CHEM)	17	P.T.0		

92.	The	region of electromagnetic spect	rum fo	or NMR is :
	(A)	Microwave	(B)	UV-rays
	(C)	Infrared	(D)	Radio frequency
93.		R spectroscopy indicates the ch	nemical	nature of theand spatial
		Electrons, Protons	(B)	Neutrons, Electrons
	(C)	Nuclei, Electrons	(D)	Nuclei, Neighbouring nuclei
94.	If th	ne number of protons and neutro	ons is	even the spin of the nucleus will be:
	(A)	Integral spin	(B)	Half Integral spin
	(C)	Zero spin	(D)	Positive spin
95.	The	uncertainty principle states that	the er	ror in measurement is due to :
	(A)	Dual nature of particles		
	(B)	Due to the small size of partic	eles	
	(C)	Due to large size of particles		
	(D)	Due to error in measuring inst	rument	
96.	The	legend system present in Vitam	nin B ₁₂	is:
	(A)	Porphyrin	(B)	Corrin
	(C)	Phthalocyanine	(D)	Crown ether
(3)N	∕l-CL	-13(CHEM)	18	

97.	Most animal cells have :					
	(A) Higher concentration of K ⁺ ions outside the cell membrane					
	(B) Higher concentration of Na ⁺ ions inside the cell membrane					
	(C)	Higher concentration of K ⁺ ion	s inside	e and higher concentration of	Na ⁺ ion	
		outside the cell membrane.				
	(D)	Higher concentration of Na ⁺ ion	ns insic	le and lower concentration of	K ⁺ ions	
		outside the cell membrane.				
98.	Hae	emoglobin and myoglobin binds	:			
	(A)	only O ₂	(B)	CO, NO		
	(C)	CN ⁻	(D)	All of these		
99.	The	last line in the plot of conductan	nce <i>vers</i>	sus volume of NaOH in all the	titration	
		ue to :				
	(A)	decrease in the OH ions				
	(B)	increase in the OH ions				
	(C)	decrease in the H ⁺ ions				
	(D)	increase in the Na ions				
100	The	Schrödinger wave equation is a	. .			
100.		-	1.			
		Linear differential equation				
		Non-linear differential equation	l			
	(C)	Second order equation				
	(D)	First-order equation				
(S)N	Л-CL	-13(CHEM)	19		P.T.O.	

GENERAL APTITUDE

101. Direction: Study the following information carefully and answer the question given below:

It has been given that-

A is + from point B states B is to the NORTH of A.

A is = from point B states B is to the SOUTH of A.

A is || from point B states A is to the East of B.

A is * from point B states A is to the WEST of B.

Now, S is =20 m from point P. Point Q is =15 m from point R. Point U is +15 m from Point V. Point T is ||20 m from point V. Point U is ||16 m from point Q. Point R is ||30 m from point P.

U is in which direction with respect to P?

- (A) East
- (B) South-East
- (C) North-East
- (D) South-West

102. Complete the series :

3 9 33 129 513 ?

- (A) 2052
- (B) 2049
- (C) 1951
- (D) 1849

103.	Direction: Study the following information	n carefully and answer the question					
	given below:						
	'B + A' means 'A is son of B'						
	$'B \times A'$ means $'A$ is father of B'						
	'A % B' means 'A is son-in-law of B'						
	'B - A' means 'A is wife of B'						
	'A * B' means 'B is brother of A'						
	'A # B' means 'B is the only sister of A'						
	Which symbol will come in place of question marks in the following equation to						
	show that L is paternal aunt of P?						
	$P \times Q \times R + S ? L$						
	(A) # (B) ×	<					
	(C) – (D) E	Either (A) or (C)					
104.	• Direction : Read the information carefully and	d answer the question given below:					
	In a certain code language,						
	'speak nicely to all' is coded as "ka cu ma	he"					

'all are like us' is coded as " si fo he to"

'teach us lesson nicely' is coded as " po ma fo re"

'lesson like all humans' is coded as "he re gu si"

What would be the code for 'speak to me'?

(A) ma ka go

(B) lo ma fo

(C) re ma ku

(D) ka cu lo

105. Suggest : Demand :: :

(A) Take: Grab (B) Question: Ask

(C) Give: Receive (D) Deny: Request

106. Find out the number of triangles in the given figure :



- (A) 12
- (B) 14
- (C) 16
- (D) 18

107. Direction: Read the following information carefully and answer the question given below:

Eight friends P, Q, R, S, T, U, V and W are standing in a straight line facing north, but not necessarily in the same order.

R and W are immediate neighbours of S. V is immediate neighbour of U and W. T and Q are immediate neighbours of P. Neither T nor R is at the extreme ends of the line. U is on the right of T.

Who among the following are at the extreme ends of the line?

(A) Q, U

(B) P, U

(C) R, U

(D) W, U

108. In the following question, there is a statement followed by two arguments I and II. Read carefully and choose the right option from the given possible answers:

Given answers:

- (a) Only argument I is strong
- (b) Only argument II is strong
- (c) Either I or II is strong
- (d) Neither I nor II is strong

Statement—Should the age of retirement in government services be increased in view of longer life span in India ?

Arguments—

- I. Yes, other countries have already taken such decision.
- II. Yes, it is a genuine demand of lakh of employees.
- (A) (a)
- (B) (b)
- (C) (c)
- (D) (d)

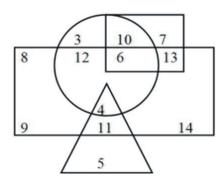
109. In the following figure,

Rectangle represents males

Triangle represents educated

Circle represents urban

Square represents civil servants



Who among the following is an educated male who is not an urban resident?

- (A) 11
- (B) 9
- (C) 5
- (D) 4

110. Arrange the words given below in a meaningful sequence :

- 1. Hecto 2. Centi 3. Deca 4. Kilo 5. Deci
- (A) 1, 3, 4, 5, 2
- (B) 1, 5, 3, 4, 2
- (C) 2, 5, 3, 1, 4
- (D) 5, 2, 1, 4, 3

GENERAL ENGLISH

- 111. Directions: Which of the phrases given below should replace the phrase given in bold in the following sentence to make the sentence grammatically correct? Gionee has been found guilty for intentionally inflicting malware in over 20 million phones by a Chinese court.
 - (A) had been found guilty for
 - (B) has been found guilty of
 - (C) has been found being guilty with
 - (D) have found to guilty for
- 112. The four sentences (labelled 1, 2, 3, 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:
 - 1. Relying on narrative structure alone, indigenous significances of nineteenth century San folktales are hard to determine.
 - 2. Using their supernatural potency, benign shamans transcend the levels of the San cosmos in order to deal with social conflict and to protect material resources and enjoy a measure of respect that sets them apart from ordinary people.
 - 3. Selected tales reveal that they deal with a form of spiritual conflict that has social implications and concern conflict between people and living or dead malevolent shamans.
 - 4. Meaning can be elicited, and the tales contextualized, by probing beneath the narrative of verbatim, original-language records and exploring the connotations of highly significant words and phrases.
 - (A) 1432

(B) 1423

(C) 1324

(D) 1342

113.	Fill in the blank:		
We must not carpthe errors of our ancestors.			
	(A) From	(B)	With
	(C) In	(D)	About
114.	Direction : Select the option which	conta	ins the part of the sentence which has
	an error (spelling, grammatical or co	ontexti	ual) :
	The model is based on legislation	drafte	ed(A)/in France where businesses are
	required(B)/to send scrap food to(C)	/waste	e management plants to be used as a
	fertilizer.(D)/		
	(A) the model is based on legislation	on dra	fted
	(B) in France where businesses are	requi	red
	(C) to send scrap food to		
	(D) waste management plants to be	used	as a fertilizer.
115.	Direction : The following question	has t	wo blanks, each blank indicating that
	something has been omitted. Choose	the se	t of words for each blank that best fits
	in the context of the sentence:		
	It is the Centre's responsibility to e	ensure	that the Environment Protection Act,
	thelaw that enables anti-	polluti	on rules to be issued, isin
	letter and spirit.		
	(A) overarching, implemented	(B)	ancient, assumed
	(C) principal, controlled	(D)	primary, rejected
(3)N	1-CL-13(CHEM)	26	

116.	Find	the correctly spelt word:		
	(A)	Scrible	(B)	Scribbale
	(C)	Screebble	(D)	Scribble
117.	In th	ne following question, out of the	four a	alternatives, select the alternative which
	best	expresses the meaning of the	idiom/p	phrase.
	To s	shoot the breeze		
	(A)	to do random acts hoping one	will b	e successful
	(B)	to have a casual conversation		
	(C)	Fail to win appreciation		
	(D)	to brag about some mild achie	evemen	ts
118.	Out	of the four alternatives choose t	he one	which can be substituted for the given
	word	ds/sentence in the question:		
	Loo	p of rope		
	(A)	Repine	(B)	Rankle
	(C)	Noose	(D)	Flay
119.	Find	the antonym of OBSEQUIOUS	S :	
	(A)	Clear	(B)	Clever
	(C)	Dandified	(D)	Domineering
120.	Find	the synonym of ANTEDILUV	IAN:	
	(A)	Antiquated	(B)	Parched
	(C)	Nonsectarian	(D)	Nonsensical
(3)N	/I-CL	-13(CHEM)	27	