120 MINUTES

1.	The core forms about% of the Earth by volume. A) 16 B) 32 C) 64 D) 22
2.	 Which formula is used for calculating drainage density? A) Total length of first order streams/Area B) Total length and breadth of streams/Area C) Total no. of streams/Area D) Total length of streams/Area
3.	Playas are associated with A) Glaciers B) Coral reefs C) River basins D) Arid landforms
4.	Maximumerosion takes place along the part of meandering streams A) Concave B) Middle C) Convex D) Edge
5.	Which is NOT true about aerial photographs? A) Time freezing ability B) Low spectral resolution C) High spatial resolution D) Three dimensional perspective
6.	The ground distance equal to 2 cm on the Survey of India Topographic Map 56 A A) 2 km B) 0.5 km C) 5 km D) 4 km
7.	Irrelevant data entered during digitizing, scanning or data transfer in GIS is called A) Noise B) Overshoot C) Loops D) Spike
8.	Which is the correct sequence in data stream? A) Generalization →Rubbersheeting →Editing →Reprojection →Layering B) Data capture →Editing →Reprojection →Generalization →Rubber sheeting→Layering C) Reprojection→Editing→Datacapture→Generalization→ Rubbersheeting→Layering D) Layering→Reprojection→Generalization→Data capture→Editing →Edge matching

9.	A) Strike B) Dip C) Slip D) Throw
10.	Which one is NOT a primary structure? A) Fold B) Bedding C) Ripple mark D) Load cast
11.	 Rods, Mullions, Slickensides and axes of boudins define A) Foliations B) Folds C) Lineations D) Joints
12.	An erosional unconformity above massive plutonic rocks is called A) Paraconformity B) Diastem C) Disconformity D) Nonconformity
13.	Cataclasites are associated with A) Unconformities B) Shear zones C) Joints D) Foliations
14.	In Ramsay's classification, class-3 folds are characterized by isogons A) Convergent B) Parallel C) Divergent D) Strongly convergent
15.	A fold with sharp hinge line A) Similar fold B) Reclined fold C) Chevron fold D) Parallel fold
16.	Mid ocean ridge basalts are produced by 10-20% partial melting ofA) Upper crust B) Upper mantle C) Lower crust D) Lower mantle
17.	Ophiolites are successions of mafic and ultramafic rocks that are considered to represent fragments of A) Continental crust B) Lower mantle C) Upper mantle or back- arc basin crust D) Oceanic or back-arc basin crust
18.	Mid oceanic ridges are located at A) Convergent boundaries B) Conservative boundaries C) Divergent boundaries D) Within plate settings
19.	The ancient sea which surrounded Pangaea A) Panthalassa B) Tethys C) Pacific D) Rodinia
20.	In which tectonic settings Kimberlites with diamonds are found? A) CratonsB) Orogens C) Continental rifts D) Subduction zones

21.	The Himalayas is an example of A) Old Collisional mountain range B) Young collisional mountain range C) Relict mountain range D) None of the above
22.	 Which one is NOT correct? A) In cross –cutting veins the most continuous one is the youngest B) Intrusions are younger than the rocks in whichthey have intruded C) Faults are older than the rocks that have been affected by faulting D) The rocks above an unconformity are younger than the unconformity
23.	 Which Period in the Palaeozoic Era encompasses the largest duration of time? A) Cambrian B) Mississippian C) Silurian D) Permian
24.	Find the mismatch A) Eon - Eonothem B) Era - Erathem C) Period -System D) Epoch -Chron
25.	Among the following which one represents the shortest break? A) Unconformity B) Nonsequence C) Hiatus D) Diastem
26.	Who stated the Principle of Original horizontality? A) James Hutton B) William Smith C) NicholausSteno D) Charles Lyell
27.	 Which one of the following is NOT a criterion for selectingan index fossil? A) Widespread geographic distribution B) Easy identification C) Long duration of existence D) Large number
28.	Bababudan Group forms part ofSupergroup A) Dharwar B) Cuddapah C) Vindhyan D) Aravalli
29.	The environment of formation of the Cretaceaus rocks of Tiruchirapally A) Marine B) Lacustrine C) Fluviatile D) Aeolian
30.	Among the following which is the most widespread and abundant intrusive rock in Kerala?
	A) Gabbro B) Granite C) Syenite D) Dunite
31.	Which among the following is the oldest? A) TipamFormation B) Uttatur Formation C) BarakarFormation D) CuddaloreFormation

32.	In wh	nich country the France B)	-		of type	e areas is located?
	C)	Germany		D)	USA	
33.	The C	Cuddapah Super	group c	of rocks	is loca	ted in
	A)	Andhra Prade		B)	Karna	
	C)	Madhya Prade	esh	,	D)	Tamilnadu
34.	Whic	h among the foll	lowing i	is NOT	richly	fossiliferous?
	A)	Trichnopoly for	ormatio	n	B)	Neobulus beds
	C)	Siwalik Group)		D)	Panchet formation
35.	The a	ge of Muth Qua	rtzite is			
	A)	Cambrian		B)	Triass	ic
	C)	Palaeocene			D)	Devonian
36.	Alect	ryonia is a				
	A)	Brachiopod			B)	Cephalopod
	C)	Pelecypod		D)	Gastro	opod
37.	Trilol	bites became ext	inct at t	he end	of	
	A)	Permian			B)	Triassic
	C)	Cretaceous			D)	Tertiary
38.		Period is cal	led the	"Age of	fishes	,,
	A)	Devonian			B)	Jurassic
	C)	Silurian			D)	Permian
39.			lowing	contains	_	number of plant fossils?
	A)	Bagh beds			B)	Tillite beds
	C)	Barakar forma	ation		D)	Quilon formation
40.			tructure	from w	hich th	ne colony of graptolites develop is
		1			~	
	A)	Rhabdosome		B)	Sicula	ı
	C)	Nema	D)	Theca		
41.		oldest vertebrates	s date fr			
	A)	Triassic		B)	Camb	
	C)	Tertiary		D)	Carbo	niferous
42.		neaning of the w	ord 'Di	nosaur'		
	A)	Giant lizard			B)	Extinct lizard
	C)	Large reptile			D)	Terrible lizard
43.	Blaste			steroide	abelong	g to the Phylum
	A)	Echinodermat	a		B)	Coelenterata
	C)	Mollusca		D)	Brach	ionoda

44.	Olenus, Olenellus, Paradoxide and Agnostus are								
	A)	Graptolites	B)	Trilob					
	C)	Pelecypods	D)	Coele	nterates	5			
45.	The n	umber of faces in a Di	ploid?						
	A)	12 B)	24		C)	6	D)	4	
46.		ng the following crystanmetry?	l classes	s,which	one ha	s the least m	umber of 6	elements	
	A)	Hexagonal normal		B)	Ortho	rhombic no	ormal		
	C)	Tetragonal normal		D)	Mono	oclinic norm	al		
47.	The s	ystem of crystallization	n of Qua	artz?					
	A)	Tetragonal		B)	Hexa	gonal			
	C)	Isometric		D)	Mono	oclinic			
48.	Pinace	oids are found in	sys	tem/s					
	A)	Hexagonal		B)		rhombic			
	C)	Monoclinic		D)	All th	e three			
49.	All cr	ystal forms belonging	to	sy	stems a	reclosed for	ms		
	A)	Tetragonal		B)	Tricli				
	C)	Monoclinic		D)	Isome	etric			
50.	Amor	ng the following which	one has	s very h	igh bire	efringence?			
	A)	Garnet		B)	Zirco	n			
	C)	Muscovite	D)	Micro	cline				
51.	Which A) B) C) D)	n one of the following Basal section of apar Prismatic section of Random section of O None of the above	tite Enstatite	e	e optica	lly isotropic	?		
52.	Which	n of the following is N	OT a ur	niaxial r	nineral	?			
	A)	Zircon	B)	Sillim	anite				
	C)	Tourmaline		D)	Apati	te			
53.		n one of the following	is a plea	ochroic	minera	1?			
	A)	Anthophyllite	B)	Augit					
	C)	Epidote	D)	Andal	lusite				
54.	A) B) C)	he mismatch: Plagioclase - Low re Staurolite- Pleochroi Hornblende - Two so	ic ets of clo			al section			
	D)	Calcite -First order	interter	ence co	lour				

55.	Which one of the following is NOT a fundamental property of a mineral?									
	A)	Specific gravity		B)	Parting					
	C)	Hardness		D)	Cleavage					
56.	Troili	te belongs to	-family							
	A)	Feldspar		B)	Amphibole					
	C)	Olivine		D)	Pyroxene					
57.	Siderite, rhodocrocite, cerussite and witherite areminerals									
	A)	Oxide		B)	Carbonate					
	C)	Silicate		D)	Sulphate					
58.	Celsia	nn is afeldspar								
	A)	Sodium		B)	Barium					
	C)	Potassium		D)	Calcium					
59.	Whic	h one of the following	mineral	s comn	nonly shows pleochro	oic haloes	s?			
	A)	Orthoclase		B)	Diopside					
	C)	Hypersthene		D)	Biotite					
60.		In which silicate group all the 4 Oxygen atoms in the (SiO ₄)Tetrahedronare shared with neighbouringtetrahedra?								
	A)	Inosilicates	B)		ilicates					
	C)	Cyclosilicates	Ď)	Tecto	silicates					
61.	Whic	h one is NOT a sulphid	le miner	al?						
	A)	Chalcocite		B)	Chalcopyrite					
	C)	Malachite		D)	Bornite					
62.	Choose the mineral with maximum number of sets of cleavages?									
	A)	Muscovite		B)	Enstatite					
	C)	Fluorite		D)	Galena					
63.	Whic	Which one does not belong to the feldspathoid family?								
	A)	Adularia		B)	Nepheline					
	C)	Cancrinite	D)	Leuci	te					
64.	The n	nost abundant metal in	the crus	st of the	eearth					
	A)	Iron		B)	Aluminium					
	C)	Titanium	D)	Silico	n					
65.		h one of the following		a stable						
	A)	C-12 B)	C-14		C) C-13	D)	C-15			
66.		Goldschmidt's classifi	ication A	Ag,Hg,	Pb and Mo belong to	the				
	_	of elements								
	A)	Siderophile B)	Lithop		C1 -1 1 1					
	C)	Atmophile		D)	Chalcophile					

6/.		antie is mainly	made u	р от					
	A)	Granite			B)	Peridotite			
	C)	Diorite			D)	Basalt			
68.	Norma	ally the pH of ra	ainwate	r is					
	A)	< 7			B)	>7			
	C)	7 D) None of	of the th	iree					
69.	Which	one of the foll	owing i	s NOT	an impo	ortant constituent of sea water?			
	A)	Magnesium			B) ¹	Iron			
	C)	Bromine			D)	Strontium			
70.	Ophiti	c texture is cha	racteris	tic of n	nany				
	A)	Granites			B)	Diorites			
	C)	Aplites D)	Doleri	tes					
71.		is a bun-s		_		on			
	A)	Phaccolith	B)	Lopo	lith				
	C)	Batholith		D)	Laccol	lith			
72.		one of the foll	_			nic rock?			
	A)	Picrite	B)	Phono					
	C)	Lamprophyre			D)	Komatite			
73.		nominerallic roo	ck essen	-	-				
	A)	Anorthosite		B)	Luxull				
	C)	Andesite			D)	Dacite			
74.		one forms a re			D)	Fordalla M			
		Olivine-Ampl			/	Enstatite-Muscovite			
	C)	Amphibole-B	iotite	D)	Olivin	e-Biotite			
75.	Which one of the following binary systems shows complete solid solution? A) Diopside-Anorthite B) Anorthite-Silica								
		*			B)	Anorthite-Silica			
	C)	Albite-Anorth	iite		D)	Nepheline-Albite			
76.	Which one of the following is NOT an ultramafic rock? A) Ophiolite B) Granophyre								
	A)	Ophiolite	Damida	B)	Grano	pnyre			
	C)	Dunite D)	Perido	tite					
77.		karVariation di	_						
	A)	Major oxides							
	B)	Fe ⁺⁺ , Mg ⁺⁺ ,Ca							
	C)			_		SiO_2 - ($CaO+Na_2O+K_2O$)			
	D)	SiO ₂ is plotted	d agains	st (Al ₂ C	O ₃ + CaO	0+ K ₂ O)			
78.			, which	minera	l is foun	d mostly as anhedral crystals in			
	_	is rocks?			D \	D:			
	A)	Orthoclase		D)	B)	Biotite			
	C)	Microcline		D)	Quartz	Z			

79.	Ancient limestones do not contain								
	A)	Calcite		B)	Calcite and dolomite				
	C)	Aragonite		D)	None of these				
80.	In typical sandstones the grain size ranges between mm andmm.								
	A)	30 and 2		/	1/16 and 1/256				
	C)	1 and 2		D)	1/16 and 2				
81.	The most widespread sedimentary rock in Kerala?								
	A)	Limestone B)	Sandst	tone					
	C)	Laterite D)	Shale						
82.	Inevap	orite deposits							
	A)								
	B)	The most soluble min	erals ar	e forme	ed first				
	C)	All the minerals form							
	D)	There is no relation be	etween	order of	f formation and solubility of minerals				
83.	Which	one is NOT considere	d as a h	-					
	A)	Ilmenite			Plagioclase				
	C)	Zircon		D)	Apatite				
84.	Which one is NOT considered as a characteristic metamorphic mineral?								
	A)	Garnet		B)	Augite				
	C) Anthophyllite D) Sillimanite								
85.	Which one of the following minerals indicates the beginning of metamorphism?								
	A)	Laumontite	B)	Stauro					
	C)	Diopside	D)	Garnet					
86.	Chloritization of biotite and garnet indicates metamorphism								
	A)	Prograde B)	Poly						
	C)	Regional		D)	Retrograde				
87.	The typical pyroxene in charnockiteis								
	A)	Hypersthene		B)	Augite				
	C)	Diopside		D)	Rhodonite				
88.	Amon		which or	ne indic	ates the highest pressure of				
	A)	Schist		B)	Phyllite				
	C)	Eclogite	D)	Gneiss					
89.	Kodar	ma is famous for	(deposits					
	A)	Kyanite	B)	Musco	vite				
	C)	Galena	D)	Iron					
90.	Which	one is NOT an ore of	mangar	nese?					
	A)	Pyrolusite	B)	Manga	nite				
	C)	Magnesite	D)	Rhodo	crocite				

91.	'Satinspar' is a variety of								
	A)	Barite		B)	Pyrite				
	C)	Calcite		D)	Gypsum				
92.	Which	Which one of the following is a radioactive mineral?							
	A)	Monazite		B)	Ilmenite				
	C)	Zircon		D)	Rutile				
93.	Chron	nite deposits are associa	ited wit	:h					
	A)	Granites	B)	Diorite	es				
	C)	Syenites		D)	Anorthosites				
94.				India is	s very rich in mineral deposits?				
	A)	Jharkhand	B)	Punjab)				
	C)	Uttar Pradesh	D)	Mahar	ashtra				
95.	Which	n one is an example of e	early ma	agmatic	deposit?				
	A)	Pyrite		B)	Corundum				
	C)	Chalcopyrite		D)	Beryl				
96.	The ro		s the la	rgest nu	imber of petroleum deposits?				
	A)	Jurassic		B)	Carboniferous				
	C)	Tertiary		D)	Cambrian				
97.		Which among the following is the odd one?							
	A)	Magnetite-Chromite		B)	Galena-Sphalerite				
	C)	Pyrrhotite-pyrite		D)	Galena-Gypsum				
98.	Which one is NOT a refractory mineral?								
	A)	Kyanite		B)	Magnesite				
	C)	Chromite		D)	Orthoclase				
99.	The process of formation of bauxite								
	A)	Magmatic		B)	Hydrothermal				
	C)	Residual Concentration	n	D)	Metamorphic				
100.		najor ore of Copper in I	ndia						
	A)	Chalcopyrite		B)	Chalcocite				
	C)	Cuprite		D)	Covellite				
101.		n one is NOT a polymor	rph of T						
	A)	Rutile		B)	Ilmenite				
	C)	Anatase	D)	Brook	ite				
102.		structures are associate							
	A)	Hydrothermal	B)	Magm					
	C)	Sedimentary		D)	Evaporation				

103.		he mismatch?						
	A)	Apatite-Ceramic	B)	Garnet-Abrasive				
	C)	Dolomite-Fertilizer	D)	Gypsum-Cement				
104.	Which		e for explora	tion of sulphide deposits?				
	A)	Self-potential	B)	•				
	C)	Radiometric	D)	Gravity				
105.	Which	n one is used in seismic s	surveys?					
	A)	Potentiometer	B)	Scintillometer				
	C)	Gravimeter	D)	Geophone				
106.	Which	n drilling method is suita	ble for deep	bore holes in sedimentary terrains?				
	A)	DTH	B) 1	Rotary				
	C)	Calyx	Ď)	None of the three				
107.	Proxi	nate and Ultimate analys	sis are used i	n the study of				
107.	A)	Petroleum	B)	Coal				
	C)	Clay	D)	Bauxite				
100	Dania	1	-1-: -1- 4/-					
108.				of sample/s is/are collected? Sediment				
	A)	Water	B)					
	C)	Soil	D)	All the three				
109.			ground water	er is very much prevalent in many parts				
		est Bengal						
	A)	Arsenic	B)	Mercury				
	C)	Manganese	D) Cadm	nium				
110.	Which one of the statements is NOT correct?							
	A)	Aquifers are both poro	us and perme	eable				
	B)	Aquicludes are porous						
	C)	Aquifuges are neither						
	D)	Aquifers are permeab	le but not po	rous				
111.	Karst	topography is formed du	e to the action	on of				
	A)	Stream water	B)	Wind				
	C)	Ground water	D)	Glacier				
112.	Ghybe	en-Herzberg equation is	related to					
	A)	Fresh water-saline water						
	B)	Movement of glacier						
	C)	Movement of sand in d	leserts					
	Ď)	Capacity of streams						
113.	The d	ifference in the elevatio	n of the wat	er table between two points divided by				
-		stance between the two p						
	A)	Hydraulic conductivity		Hydraulic gradient				
	C)	Specific capacity	Ď)	Cone of depression				

114.		th method helps in heering works?	the invest	igation	of structural conditions affecting civi				
	A)	Geochemical		B)	Geochronological				
	C)	Geobotanical	D)	Geop	hysical				
115.		ining, verticalopenir ement of men and m	•		ground for removal of materials and				
	A)	Drift		B)	Adit				
	C)	Trench		D)	Shaft				
116.	Meth	ane and CO are con	nmonly end	counter	ed during the mining of				
	A)	Coal		B)	Ground Water				
	C)	Clay		D)	Mica				
117.	Eutro	phication is related	to pollutio	n of					
	A)	Air		B)	Soil				
	C)	Water		D)	Rock				
118.	Which one of the following is the fastest mass wasting process?								
	A)	Rock fall		B)	Creep				
	C)	Avalanche	D)	Earth	flow				
119.	Which is true about Richter scale?								
	A) It has an upper limit of 9.5								
	B)								
	C)	It measures the in	tensity of e	earthqu	akes				
	D)	It is not useful for	measuring	g low ii	ntensity earthquakes				
120.	Whic	h district in Kerala	s NOT pro	ne to l	andslides?				
	A)	Wayanad	B) _	Kolla	m				
	C)	Alappuzha	-	D)	Idukki				
