

RGUCET 2022

MSc in Applied Geology

1	A sentence with one main clause and one subordinate clause is called _____ sentence. <i>(Fill in the blank)</i>					
	a) simple	b) complex	c) compound	d) twisted	c	compound
2	I could not sleep last night ..... <i>(Complete the sentence by choosing the correct option)</i>					
	a) because being very tired.	b) despite being very tired.	c) in spite of being sleepless.	d) since being very tired.	b	despite being very tired.
3	As there were no buses or train, he _____ home last night. <i>(Choose the correct option to fill in the blank)</i>					
	a) has to walk	b) has to walked	c) had to walk	d) had to walked	c	had to walk
4	He _____ fast when the accident happened. <i>(Choose the correct form of verb to fill in the blank)</i>					
	a) drives	b) drove	c) is driving	d) was driving	d	was driving
5	I _____ for half an hour when it suddenly started to rain. <i>(Choose the correct form of verb to fill in the blank)</i>					
	a) have walked	b) have been walking	c) had been walking	d) was walking	c	had been walking
6	The African elephant is now confined _____ Central Africa. <i>(Choose the correct preposition to fill in the blank)</i>					
	a) at	b) by	c) to	d) in	c	to
7	I do my work _____ carefully to make mistakes. <i>(Select the most appropriate word for the blank space)</i>					
	a) so	b) very	c) too	d) more	c	too
8	The shepherd was looking after the _____ of sheep. <i>(Select the most appropriate word for the blank space)</i>					
	a) flock	b) herd	c) fleet	d) gang	a	flock
9	Such conduct deserves <u>reprimand</u> . <i>(Choose the correct meaning of the underlined word)</i>					
	a) praise	b) punishment	c) rebuke	d) reward	b	punishment
10	He is so <u>garrulous</u> that all sober persons avoid his company. <i>(Choose the correct meaning of the underlined word)</i>					
	a) domineering	b) foolish	c) quarrelsome	d) talkative	d	talkative

11	In which district of Arunachal Pradesh, the remains of ancient settlement of humans were discovered recently?					
	a) Papum Pare	b) Upper Siang	c) Lower Dibang Valley	d) Lohit	a	Papum Pare
12	18th SAARC Summit held in					
	a) Bhutan	b) India	c) Nepal	d) Sri Lanka	c	Nepal
13	India's place in the Asia Power Index 2021 is					
	a) 2	b) 3	c) 4	d) 5	c	4
14	As of May 2022, India's cumulative COVID-19 vaccination coverage is around					
	a) 170 Cr	b) 180 Cr	c) 190 Cr	d) 200 Cr	c	190 Cr
15	The International Man Booker Prize for the year 2022 is won by the book titled					
	a) Tomb of Sand	b) Heaven	c) Elena Knows	d) Cursed Bunny	a	Tomb of Sand
16	Height of the world's tallest building "Burj Khalifa" is					
	a) 808 m	b) 818 m	c) 828 m	d) 838 m	c	828 m
17	The English word "mango" is believed to be derived from					
	a) Portuguese	b) Malay	c) Sanskrit	d) Tamil	d	Tamil
18	Total number of Lok Sabha constituency in India is					
	a) 513	b) 523	c) 533	d) 543	d	543
19	The total number of gold medals won at the Olympic Games by India so far is					
	a) 8	b) 10	c) 16	d) 24	b	10
20	Solid white road line in the middle of roads indicate					
	a) crossing the lane is prohibited	b) crossing the lane allowed	c) road bump ahead	d) speed limit 20 km per hour	a	crossing the lane is prohibited

21	Find the odd one out.					
	a) Titan	b) Europa	c) Phobos	d) Sputnik	d	Sputnik
22	Among a group of 200 students, 120 students like 'Physics' while 115 like 'Mathematics'. 65 of them like both 'Physics' and 'Mathematics'. How many students like neither 'Physics' nor 'Mathematics'?					
	a) 30	b) 35	c) 50	d) 55	a	30

23	On the day of inauguration of his shop, a shopkeeper offers 50% discount. On second day, he offered further 20% discount. On third day, he offered further 20% discount. What will be the selling price of an item costing 1000 rupees on third day?					
	a) 910 rupees	b) 480 rupees	c) 320 rupees	d) 100 rupees	c	320 rupees
24	If 'A' and 'B' together can complete a work in 15 days and 'B' alone can complete the work in 20 days, in how many days can 'A' complete the work?					
	a) 10 days	b) 30 days	c) 45 days	d) 60 days	d	60 days
25	A train running at a speed of 60 km/hr crosses a 250 m long platform in 30 seconds. What is the length of the train?					
	a) 200 m	b) 220 m	c) 230 m	d) 250 m	d	250 m

26	Which of the following is a primary structure?					
	a) Fault	b) Fold	c) Thrust	d) Stratification	d	Stratification
27	If progressively older rocks are encountered on moving along dip direction, then which of the following is true?					
	a) dip > slope	b) dip < slope	c) dip = slope	d) slope = 0	b	dip < slope
28	In which fold both the limbs are overturned?					
	a) Overturned fold	b) Recumbent fold	c) Fan fold	d) Isoclinal fold	c	Fan fold
29	A folded layer where orthogonal thickness is constant, belongs to:					
	a) Class 1A	b) Class 1B	c) Class 1C	d) Class 2	b	Class 1B
30	When strike of a fault plane is perpendicular to the dip of the strata, it is known as:					
	a) Dip fault	b) Strike fault	c) Dip-slip fault	d) Strike-slip fault	b	Strike fault
31	In a stress vs. strain diagram of a rock, if the distance between yield point and rupture point is zero, then the rock:					

	a) undergoes plastic deformation.	b) undergoes ductile deformation.	c) undergoes brittle deformation.	d) does not undergo any deformation.	c	undergoes brittle deformation.
32	Horst and graben are associated with which of the following?					
	a) Normal fault	b) Reverse fault	c) Strike-slip fault	d) Thrust	a	Normal fault
33	A rock with dominantly linear fabric is:					
	a) schist.	b) slate.	c) S-tectonite.	d) L-tectonite.	d	L-tectonite

34	Which of the following sensors belongs to Indian Remote Sensing Satellite?					
	a) SPOT	b) ETM+	c) LISS-4	d) IKONOS	c	LISS-4
35	Which of the following satellite has the capability of taking stereo image?					
	a) Cartosat-1	b) Resoursat-2	c) Landsat-9	d) Oceansat-2	a	Cartosat-1
36	Union, intersect, clip, erase etc. belong to which vector data analysis process?					
	a) Network analysis	b) Overlay analysis	c) Reclassification	d) Buffering	b	Overlay analysis
37	In which of the following projection system, all the graticule lines remain straight?					
	a) Azimuthal projection	b) Conical projection	c) Cylindrical projection	d) Polar projection	c	Cylindrical projection

38	Texture of shale is:					
	a) crystalline.	b) interlocking.	c) aphanitic.	d) gritty.	c	aphanitic.
39	During which geological period did reptile first appear?					
	a) Carboniferous	b) Triassic	c) Jurassic	d) Miocene	a	Carboniferous

40	Jaintia Group is equivalent to:					
	a) Barail Group	b) Siwalik Group	c) Kulling Group	d) Disang Group	d	Disang Group
41	Rocks of Cuddapah Supergroup belongs to:					
	a) Archaean	b) Proterozoic	c) Paleozoic	d) Phanerozoic	b	Proterozoic
42	Which of the following is an example of clastic sedimentary rock?					
	a) Breccia	b) Limestone	c) Evaporite	d) Chert	a	Breccia

43	Which of the following Age belongs to Holocene Epoch?					
	a) Gelasian	b) Calabrian	c) Chibanian	d) Meghalayan	d	Meghalayan
44	What is the half-life of $^{14}\text{C}$ ?					
	a) 5730 years	b) 3570 years	c) 11460 years	d) 7140 years	a	5730 years
45	Base of the Quaternary Period is fixed by IUGS at:					
	a) 1.80 Ma	b) 2.58 Ma	c) 23.03 Ma	d) 66.0 Ma	b	2.58 Ma
46	The lowest level up to which a river can erode its bed is called its:					
	a) base level.	b) sea level.	c) reduced level.	d) ultimate level.	a	base level.
47	Karst topography is found in which type of terrain?					
	a) Granitic terrain	b) Gneissic terrain	c) Limestone terrain	d) Sandstone terrain	c	Limestone terrain
48	Sorting of sediments can be best represented by which of the following statistical measure?					
	a) Standard deviation	b) Skewness	c) Kurtosis	d) Correlation	a	Standard deviation
49	According to Koppen climate classification, 'Aw' is:					

	a) hot desert climate.	b) cold desert climate.	c) tropical monsoon climate.	d) tropical savanna climate.	d	tropical savanna climate.
50	El Nino is:					
	a) warming of surface waters in the eastern tropical Pacific Ocean.	b) cooling of surface waters in the eastern tropical Pacific Ocean.	c) warming of Atlantic Ocean.	d) cooling of Indian Ocean.	a	warming of surface waters in the eastern tropical Pacific Ocean.

51	The following figure shows the position of gravity dams in different geological setting. Which is the correct arrangement for increasing stability?					
	a) A-B-C	b) A-C-B	c) B-C-A	d) B-A-C	b	A-C-B
52	A tunnel is constructed in a syncline as shown in figure below. Pressure experienced at locations A, B and C respectively are:					
	a) low, high, low.	b) high, low, high.	c) high, low, low.	d) low, low, high.	a	low, high, low.

53	An intact rock:					
	a) have joints and cracks.	b) do not have joints but may have cracks.	c) do not have joints or cracks.	d) do not have cracks but may have joints.	c	do not have joints or cracks.
54	Which figure shows the failure envelope of a non-cohesive soil?					
	a) A only	b) B only	c) C only	d) A & B	b	B only
55	Joints present along a slope are shown as dash lines in the figure below. Which slope will be more stable?					
	a) Slope A	b) Slope B	c) Slope C	d) Slopes B & C	b	Slope B
56	An aquifer has a cross-sectional area of 1000 m <sup>2</sup> and hydraulic gradient of 0.02. If water flows from the aquifer at a rate of 20 m <sup>3</sup> /sec, the hydraulic conductivity of the aquifer is:					
	a) 2 m/sec	b) 1 m/sec	c) 0.5 m/sec	d) 0.1 m/sec	b	1 m/sec
57	Hardness of groundwater is determined based on the concentration of:					
	a) calcium and magnesium	b) carbonate and bicarbonate	c) sodium and potassium.	d) deuterium and tritium.	a	calcium and magnesium

58	What colour does the outcrop of manganese deposits exhibit?					
	a) Black	b) Brown	c) Maroon	d) Green	a	Black
59	Diamond bits can be used to drill boreholes in					
	a) horizontal direction.	b) vertical direction.	c) horizontal and vertical directions.	d) all directions.	d	all directions.
60	In room-and-pillar mining, the roof of the mine is supported by:					
	a) steel structure.	b) wooden logs and bamboo.	c) the mineral itself.	d) concrete column.	c	the mineral itself.
61	Self-potential method is most suitable for prospecting:					
	a) carbonates.	b) oxides.	c) sulphides.	d) sulphates.	c	sulphides.
62	Characteristics of petroleum reservoir rock are:					
	a) porous but not permeable.	b) porous and permeable.	c) neither porous nor permeable.	d) permeable but not porous.	b	porous and permeable.
63	The microscopic organic constituents of coal are called:					
	a) volatiles.	b) lithotypes.	c) macerals.	d) matrix.	c	macerals.
64	Digboi Oil Field is associated with:					
	a) Naga Thrust.	b) Disang Thrust.	c) Kaladan Fault	d) Mishmi Thrust.	a	Naga Thrust.
65	Namchik-Namphuk Coal Field is in which state?					
	a) Assam	b) Arunachal Pradesh	c) Himachal Pradesh	d) Meghalaya	b	Arunachal Pradesh

66	Selenography deals with					
	a) study of origin of planets	b) study of distribution of rocks in earth	c) study of origin of physical features on the moon	d) study of origin of moon	c	study of origin of physical features on the moon
67	The mean distance between the Sun and the Earth is					
	a) $1.49 \times 10^6$ km	b) $14.9 \times 10^6$ km	c) $149 \times 10^6$ km	d) $149 \times 10^7$ km	c	$149 \times 10^6$ km
68	Trenches are located in					
	a) convergent plate boundaries	b) divergent plate boundaries	c) transform boundaries	d) within plate settings	a	convergent plate boundaries
69	In case of rotational slide, a kind of mass wasting, the surface of rupture is					
	a) horizontal	b) concave upward	c) convex upward	d) vertical	b	concave upward
70	Which of the following animal fossil was found in South America and Africa by Alfred Wegener?					
	a) Glossopteris	b) Lystrosaurus	c) Mesosaurus	d) Hadrosaurus	c	Mesosaurus
71	Of the total available fresh water, how much is stored as groundwater?					
	a) 0.5%	b) 1.3%	c) 30.1%	d) 68.1%	c	30.10%

72	Which one of the following is a closed form?					
	a) pyramid	b) dome	c) dihedron	c) dipyramid	d	dipyramid
73	Which of the following is an equal angle stereonet type?					
	a) Wulff net	b) Schimdt net	c) horizontal datum	d) vertical datum	a	Wulff net
74	Radius ratio of NaCl structure varies from					
	a) 0.155 to 0.255	b) 0.255 to 0.41	c) 0.41 to 0.73	d) 0.73 to 1.0	c	0.41 to 0.73
75	At depths around 300 to 400 km within the Earth, structure of olivine changes to					
	a) garnet	b) $\beta$ -spinel	c) pyroxene	d) stishovite	b	$\beta$ -spinel

76	Which of the following minerals commonly occur in acicular habit?					
	a) asbestos	b) wavelite	c) millerite	d) pyrolusite	c	millerite
77	How many silicate minerals are found in the Moh's scale of hardness?					
	a) 2	b) 3	c) 4	d) 5	c	4
78	Iceland spar is a transparent variety of					
	a) quartz	b) gypsum	c) muscovite	d) calcite	d	calcite

79	Name the rock that has plagioclase and pyroxene as essential mineral where the composition of plagioclase is anorthitic.					
	a) diorite	b) gabbro	c) tonalite	d) monzo-syenite	b	gabbro
80	Name the rock that has pyroxene as major mineral and olivine as subordinate mineral.					
	a) lherzolite	b) wehrlite	c) harzburgite	d) websterite	d	websterite
81	In which type of eruption, the pyroclastic deposits are spread up to a million sq. km?					
	a) strombolian	b) Plinian	c) submarine eruption	d) cinder cone eruption	b	Plinian
82	What is the degree of freedom at eutectic point?					
	a) 0	b) 1	c) 2	d) 3	a	0
83	In case of ophitic texture, which mineral is found as oikocryst?					
	a) pyroxene	b) plagioclase	c) amphibole	d) biotite	a	pyroxene
84	A lopolith has					
	a) flat base	b) concave base	c) convex base	d) convex top	b	concave base
85	Metamorphism of limestone yields					
	a) marble	b) schist	c) phyllite	d) gneiss	a	marble
86	What texture is seen in the metamorphosed limestone?					
	a) granoblastic	b) foliated	c) interlocking	d) porphyroblastic	a	granoblastic
87	Most komatiite is restricted to					
	a) Mesozoic	b) Palaeozoic	c) Proterozoic	d) Archean	a	Archean

88	The study of trace fossils is known as					
	a) synecology	b) autecology	c) ichnology	d) ornithology	c	ichnology
89	Which one of the following is a living fossil?					
	a) lamprey	b) orthoceras	c) holoctypus	d) apirifer	a	lamprey
90	The form of gastropod shell characterized with short spire and very large aperture is known as					
	a) cylindrical	b) fusiform	c) auriform	d) trochiform	c	auriform
91	Paradoxides were restricted to the geological period					
	a) Middle Cambrian	b) Upper Cambrian	c) Ordovician	d) Ordovician to Devonian	a	Middle Cambrian
92	Outer shell of most of the foraminifers are composed of					
	a) siliceous material	b) phosphatic material	c) calcareous material	d) organic wall	c	Calcareous material
93	Earliest known genus of horse fossil is					
	a) Epihippus	b) Orohippus	c) Eohippus	d) Miohippus	c	Eohippus
94	The size of this horse was about					
	a) 10 cm	b) 30 cm	c) 60 cm	d) 90 cm	b	30 cm

95	Gondwana basins in India host					
	a) coal deposits	b) gold deposits	c) REE deposits	d) base metal deposits	a	coal deposits
96	Which one of the following is the oldest formation of Siwalik Group of Arunachal Himalaya?					
	a) Geku Formation	b) Subansiri Formation	c) Kimin Formation	d) Dafla Formation	d	Dafla Formation
97	Se La Group is separated from Dirang Formation by					
	a) Main Frontal Thrust	b) Main Boundary Thrust	c) Main Central Thrust	d) Central Indian Shear Zone	c	Main Central Thrust

98	Base metals include					
	a) Cu, Pb, Zn and Sn	b) Cu, Pb, Zn and Al	c) Fe, Mg, Mn and Cr	d) Sn, Ar, Cr and Be	a	Cu, Pb, Zn and Sn

99	Major manganese ore deposit in India is found in					
	a) Odisha	b) Andhra Pradesh	c) Gujarat	d) Arunachal Pradesh	a	Odisha
100	Leading producer of vanadium in the world is					
	a) Australia	b) USA	c) China	d) India	c	China