1	MINING METHODS 001: A controlling factor in determining the choice of mining method between open pit operation and underground method.	spatial position of ore body
2	MINING METHODS 002: A type of drill used in stoping and raising operations. (airleg, stoper, sinker, raise climber)	stoper
3	MINING METHODS 003: Underground mining method used by small-scale miners. (gophering, cut-and-fill, glory hole, top slicing)	gophering
4	MINING METHODS 004: Underground mining method which utilizes natural support for openings that result from ore extraction.	room and pillar
5	MINING METHODS 005: Slope of the final pit limit that defines geographically the boundaries of the open pit reserves.	final pit slope
6	MINING METHODS 006: Wood or steel member of a shaft that are hitched or protruded into the wall to support the weight of certain members of shaft sets.	hanging bolt
7	MINING METHODS 007: Mining method that is exclusively by retreating method with the cut-off grade serving only to define to fringes of major ore zones.	block caving
8	MINING METHODS 008: Which piece of equipment removes materials by pulling its bucket toward the machine?	bucket wheel excavator
9	MINING METHODS 009: A small-scale method of recovering gold in placer deposits using long wooden troughs with crossbars to check water velocity.	channel
10	MINING METHODS 010: An example of underhand stoping.(top slicing, resuing, shrinkage, cut-and-fill)	top slicing
11	MINING METHODS 011: A term commonly used in coal mining for an adit or a gently inclined shaft.	entry
12	MINING METHODS 012: The drilling rate of the blast hole rig depends primarily on: (rotary speed and bit thrust, rock type, flushing medium, all of the above)	all of the above
13	MINING METHODS 013: This mining method is generally used for deposits where the ore is structurally weak and where faulting and rock fracturing predominates.	block caving
14	MINING METHODS 014: This mining method is basically an overhand stoping system in which a portion of the broken ore accumulates until the stope is completed.	shrinkage stoping
15		sublevel stoping
16	MINING METHODS 016: This is a type of placer mining: (strip mining, quarrying, open cut mining, hydraulicking)	hydraulicking
17	MINING METHODS 017: An aid in mine planning and design. (pick and shovel, computer, brunton compass, shaft)	computer
18	MINING METHODS 018: A positive ore reserve is synonymous to...	measured ore
19	MINING METHODS 019: Mining method most applicable in high grade but narrow veins.	resuing
20	MINING METHODS 020: An underground mining method which is economically comparable to open pit mining.	block caving
21	MINING METHODS 021: A _____ is ideally applicable to open cast coal mining in the Philippines.(no answer)*pass*	no answer
22	MINING METHODS 022: Mining method that is exclusively by retreating method with the cut-off grade serving only to define the fringes or major ore zones.	open pit
23	MINING METHODS 023: A method in which any overburden is stripped and transported to a disposal area to uncover the mineral deposit.	open pit
24		final pit slope
25	MINING METHODS 025: A controlling factor in determining the choice of mining method between open pit operation and underground method.	stripping ratio
26	MINING METHODS 026: If mineral deposits that are otherwise prime candidates for recovery by open pit mining occur at uneconomic depth, and underground method must be considered, then what is your logical choice. (longwall mining, block caving, room and pillar, cut and fill)	block caving

27	MINING METHODS 027: The angle measured in degrees of deviation from the horizontal, at which the earthy rock material will stand in an excavated terrace like out in an open pit mining or quarry.	bench slope
28	MINING METHODS 028: Mining method where caving and subsidence occur with substantial pillar extraction.	room and pillar
29	MINING METHODS 029: A method which is intended for the recovery of heavy minerals from mainly alluvial or placer deposits using water to excavate, transport and/or concentrate the mineral.	placer mining
30	MINING METHODS 030: Includes those methods which are rely on water or a liquid solvent to recover minerals from the earth, either by hydraulic action or solution attack.	aqueous extraction
31	MINING METHODS 031: A method in which a high pressure stream of water is directed against a placer bank to undercut and cave it.	hydraulicking
32	MINING METHODS 032: A method in which the extraction carried out on a mineral in place.	in-situ leaching
33	MINING METHODS 033: Mining method which has a wide range of applications. This is because of its selectivity, good recovery, and applicability under an unpredictable rock conditions.	cut and fill
34	MINING METHODS 034: Fiducial interval is used in ore reserve estimation when the valuable technique being used is _____.	statistical method
35	MINING METHODS 035: This mining method is generally employed in steeply dipping bedded deposits with fairly uniform grade where the stopes are mined from sublevels.	sublevel stoping
36	MINING METHODS 036: In long hole fan blasting, the optimum fan angle lies between ___ to ___ based on the ratio of ore to waste sizes.	60 to 90
37	MINING METHODS 037: A geophysical exploration technique most applicable to porphyry copper deposits.	spontaneous polarization technique
38	MINING METHODS 038: The most reliable method of determining the gold content of an ore.	atomic absorption spectrophotometry
39	MINING METHODS 039: Small blocks of ore are systematically extracted and replaced by a prismatic skeleton of timber sets, framed into an integrated support structure and backfilled floor by floor.(stull stoping, square set stoping, cut and fill, none of the above)	none of the above
40	MINING METHODS 040: An exploitation method used in fairly flat-lying, thin tabular deposits in which a long face is established across a panel between sets of entries and retreated or advanced by narrow cuts, aided by the complete caving of the roof and hanging wall.	longwall
41	MINING METHODS 041: A supported mining method where ore strength is moderate to strong; rock strength: weak to fairly weak; deposit size: tabular to irregular; deposit dip: moderate to fairly steep; deposit size: thin to moderate; ore grade: fairly high.(stull stoping, square set, cut and fill, longwall mining)	cut and fill
42	MINING METHODS 042: Mine opening over haulage level through which ore from the stope above is drawn to the waiting trucks as planking is removed.	chinaman's chute
43	MINING METHODS 043: The process of ejecting grout (mixture of cement and sand) into crevices of rock, usually through a borehole drilled into the rock to be grouted.	grouting
44	MINING METHODS 044: The spraying of mine roadways with concrete to give a measure of support presents a smooth surface to the air current and prevent weathering.	guniting
45	MINING METHODS 045: The ore tonnage estimated largely on the broad knowledge of the geologic character of the deposits and for which there are few, if any samples or measurements.	geologic reserve

46	MINING METHODS 046: One (stope) in which the ore above the point of entry to the stope is attacked, so that severed ore tends to gravitate towards discharge chutes and is self-draining.	overhand stope
47	MINING METHODS 047: A method of mining using a system of haulageways beneath the block of the ore which has its top surfaces exposed by the removal of the overburden. Over the haulageways are chutes that extend up to the surface, and are spaces at intervals of 50 feet or at any other convenient distance.	gloryhole system
48	MINING METHODS 048: A process for mining sulfur in which superheated water is forced into the sulfur deposits for the purpose of melting the sulfur.	frasch process
49	MINING METHODS 049: A local term for vein or ore.	nava
50	MINING METHODS 050: Geostatistical method of determining the average grade of an orebody from drillhole sample assays. It can also provide directional grade trends.	krigging
51	MINING METHODS 051: It uses chemical reagent. (flotation, thickening, amalgamation, filtering)	flotation
52	MINING METHODS 052: Slusher system of block caving is a method that is: select the letter: (a) semi-mechanized high labor intensive operation; (b) low-mechanized, low labor intensive operator; (c) low-mechanized, high labor intensive operation; (d) highly-mechanized, high labor intensive operation	semi-mechanized high labor intensive operation
53	MINING METHODS 053: LHD is of block caving is a method that is: select the letter (a) applicable to one that has fine fragmentation; (b) semi-mechanized, high labor intensive operation ; (c) low-mechanized, low labor intensive operator; (d) highly-mechanized, low labor intensive operation	highly-mechanized, low labor intensive operation
54	MINING METHODS 054: The most commonly used mining methods in narrow veins are normally: select the letter: (a) highly mechanized resulting in high productivity; (b) low-mechanized resulting in high productivity ; (c) low-mechanized resulting in low productivity; (d) highly mechanized resulting in low productivity	low-mechanized resulting in low productivity
55	MINING METHODS 055: The common problem of resuing mining method in narrow vein is: select the letter only: (a) its nonselectivity (b) low level of technology employed and rock stability problem (c) low productivity (d) relatively high cost of operation	low level of technology employed and rock stability problem
56	MINING METHODS 056: Cut-and-fill with ramp in the stope is a variation of cut-and-fill which offers: select the letter: (a) low mechanization level of operation (b) mechanized alternative of cut-and-fill method (c) low production operation (d) labor intensive operation	mechanized alternative of cut-and-fill method
57	MINING METHODS 057: The ramp method of cut-and-fill is best suited for: (short veins, massive or flat orebodies, long ore veins or continuous beds, flat narrow veins)	no answer
58	MINING METHODS 058: A sublevel retreat with backfill is found in the structure as:	cut and fill in slices
59	MINING METHODS 059: The analysis of the method in side veins suggest that it is the safest method of mining known today.	vertical crater retreat
60	MINING METHODS 060: Factors in selecting mining method, that rely on mine recovery dilution and flexibility of methods (geotechnical properties, economic consideration, technological factors, geologic and hydrologic conditions)	technological factors
61	MINING METHODS 061: These factors are probably the most important determinant, because they largely decide the choice of the method.	spatial characteristics
62	MINING METHODS 062: Detailed surface investigation of target area in prospecting (Phase I,II,III,IV)	III
63	MINING METHODS 063: Hydraulicking includes all the following except one: (unconsolidated materials/can automate operations/low mining cost/selective operations)	selective operations
64	MINING METHODS 064: All are true for solution mining except on: (low mining cost/low dilution/high productivity/good health and safety)	low dilution

65	MINING METHODS 065: Shrinkage stoping are classified as: (a) large scale method, (b) moderate to small scale (c) small scale method (d) all of the above	all of the above
66	MINING METHODS 066: All are the factors in choosing mining method except on: (a) spatial characteristic of deposit (b) geologic conditions (c) technological factors (d) marketing factors	marketing factors
67	MINING METHODS 067: Placer mining may require substantial waste disposal system because of (a) both overburden stripping and waste injection involved (b) unable to dump waste regularly (c) continuous mineral processing (d) all of the above	no answer
68	MINING METHODS 068: It is an independent mining organization where the department head has direct consultation with the manager.	safety department
69	MINING METHODS 069: The cheapest and low recovery of leach mining.	in-situ leaching
70	MINING METHODS 070: Detailed reconnaissance in prospecting which includes ore dressing test. (phase I,II,III,IV))	II
71	MINING METHODS 071: The ultimate depth of the optimum pit limit in open pit and underground on an early point in time in order to: (a) determine the mineable size by open pit method of the ore reserve (b) determine the pit slope (c) determine the ore to waste stripping ratio (d) guarantee on production on deeper levels	no answer
72	MINING METHODS 072: A method for surface highwall or outcrop recovery of coal by boring or excavating opening into the seam beneath the overburden.	auger method
73	MINING METHODS 073: The underwater excavation of placer deposit, usually carried out from a floating vessel which may incorporate processing and waste disposal facilities.	dredging
74	MINING METHODS 074: The loading point beneath a stope using gravity to move bulk material downward and into a conveyance, by a chute or loading machine.	drawpoint
75	MINING METHODS 075: It is the working face of an opening.	breast
76	MINING METHODS 076: The broken, caved and mined-out portion of the deposit.	gob
77	MINING METHODS 077: Portion of a deposit overlying an excavation and left in place.	crown pillar
78	MINING METHODS 078: The country rock boundary adjacent to a deposit.	wall rock
79	MINING METHODS 079: It is a funnel-shaped excavation formed at the top of a raise to move bulk material by gravity from a stope to a drawpoint.	bell
80	MINING METHODS 080: A narrow, vertical or inclined opening excavated in a deposit at the end of a stope to provide a bench face.	slot
81	MINING METHODS 081: The term applied to the timbering or the concrete around the mouth or to of a shaft.	collar
82	MINING METHODS 082: Sometimes referred to as open cut mining. It can be employed in any mineral deposit of any rock type lying near or on the surface.	open pit mining
83	MINING METHODS 083: Type of mining in which large quantities of water under pressure directed through pipes and nozzles (giants) are utilized to disintegrate the deposit.	hydraulic mining
84	MINING METHODS 084: A surface or near-surface deposit, usually tabular and maybe of considerable aerial extent, containing mineral particles in detritus.	detrital deposit
85	MINING METHODS 085: Near-surface generally implies depths of less than ____ feet.	500
86	MINING METHODS 086: Basically a continuous large-volume digging machine attached to a gravity concentrating facility (jigs, etc) with waster removal systems, contained on a floating platform.	dredge
87	MINING METHODS 087: Open pit excavation from which ore is removed by gravity through a raise or raises connecting to underground haulageways.	glory hole
88	MINING METHODS 088: It is the oldest method of mining both coal and most metallic ores.	room and pillar

89	MINING METHODS 089: It is the process wherein large quantities of hot water are introduced through wells drilled into buried deposit of native sulfur.	frasch process
90	MINING METHODS 090: A method for mining free gold deposits in river beds.*dredging	dredging
91		strip mining
92	MINING METHODS 092: The method suits coal deposits that are flat and tabular with dips not to exceed 12". The coal seams are mined by creating rooms and leaving pillars in a regular pattern.	room and pillar
93	MINING METHODS 093: A method for mining weak veins and used a great deal of timbers. The whole width of the vein is mined in horizontal slices starting from the top. The timber sets are blasted down after each slice is completed before the next slice is started.	top slicing
94	MINING METHODS 094: It is timbered stope but classified as a self-supporting opening because the timbers are not used as support but to provide working platforms for miners. The method is applicable to very narrow veins so that the timbers to be used are normally 5-6 ft.	stull stope
95	MINING METHODS 095: A method of caving that utilizes the weight of an ore column that is being caved to crush itself into sizes small enough to pass through draw points that have been prepared beforehand.	block caving
96	MINING METHODS 096: A horizontal opening in or near an ore body and parallel to the course of the vein or long dimension of the ore body.	drift
97	MINING METHODS 097: A horizontal or near-horizontal underground passage that is open to the atmosphere at both ends.	tunnel
98		auger method
99		dredging
100	MINING METHODS 100: A method of stoping wherein the wall rock on one side of the vein is removed before the ore is broken. Employed on narrow veins, less than 30 in (76 cm), and yields cleaner ore than when wall and ore are broken together.	resuing
101	MINING METHODS 101: A method of stoping in which the ore is broken down first and then the waste or vice versa; usually the one which breaks easier is blasted first. The broken waste is left in the stope as filling, and the ore is broken down on flooring laid on the fill to prevent admixture of ore and waste. Resuing is applicable where the ore is not frozen to the walls and works best if there is considerable difference between the hardness of the ore and of the wall rocks.	resuing
102	MINING METHODS 102: Ore for which estimates are based on an assumed continuity and may or may not be supported by samples or measurements.	indicated ore

BREAKDOWN OF QUESTIONS	ITEMS
Mining methods	**102**
Coal mining	**43**
Rock mechanics	**56**
Blasting	**84**
Geology	**83**
Mineral Resources	**9**
Mining laws	**100**
Mine economics	**160**
uncategorized	**272**
TOTAL	**909**

1	COAL MINING 001: Strata means (beds or layers, beams or bars, coal seams, surrounding rocks)	beds or layers
2	COAL MINING 002: Goaf means (in-situ rock, caved roof materials, coal refuse, powdered coal)	caved roof materials
3	COAL MINING 003: Where the microenvironment is located in a longwall operation. (at the face, at the roof, at the floor, in the entire panel)	at the face
4	COAL MINING 004: It is one of the high extraction methods of mining coal underground.	longwall mining
5	COAL MINING 005: It is the most important geographical factor influencing coal formation, which affects the rate of floral growth and the degree of preservation of accumulated plant materials in a peat swamp.	climate
6	COAL MINING 006: It is a liquid, very viscous, hydrocarbon not extractable from oil wells.	tar
7	COAL MINING 007: A solid petroleum that occurs as a component of shale.	kerogene
8	COAL MINING 008: The two predominant methods in underground coal mining. (a) pillar extraction and longwalling (b) shortwall mining and pitch mining (c) room-and-pillar and breast stoping (d) hydraulic mining and stop-and-pillar mining	pillar extraction and longwalling
9	COAL MINING 009: In room-and-pillar mining, this method is more preferred than the conventional mining method because separate unit operations are eliminated or performed by a single high-performance mining machine. It is also more efficient than the latter, lends more easily to, and benefits from simulation analyses for improving its performance.	continuous mining
10	COAL MINING 010: This method is a variation of room-and-pillar mining and is used when the deposit dip exceeds 15 degrees. The necessary modification is to mine cross-pitch to reduce the effective haulage grades.	pitch mining
11	COAL MINING 011: This phenomenon in longwall mining is a result brought about by the violent collapse of the goafs compressing the cavity underneath the main roof. The occurs when the roof is competent (e.g. a massive limestone) and the face has advanced for a distance of 100 - 150m.	air blast
12	COAL MINING 012: After the collapse as in air blast, a redistribution of the overburden pressure occurs. Part of the load now rests on the goaf and the remainder is partly carried by the _____.	abutment
13	COAL MINING 013: It is the practice of removing the gas contained in a coal seam and adjoining strata before actual mining through wellbores drill holes, and pipelines.	methane drainage
14	COAL MINING 014: A mode of pillar failure wherein the pillar load exceeds the foundation (floor) material's unconfined compressive strength. The failure is manifested by upward deformation of the floor.	floor heave
15	COAL MINING 015: Another pillar failure mode wherein the coals pillar, due to backpressure, gradually scales off. This effective reduces the size of the pillar, thereby reducing its strength and increasing the pillar stress.	pillar scaling
16	COAL MINING 016: A beam failure mode wherein the roof materials break due to its own weight and presence of natural fractures. The roof debris falls into the opening. However, this is not stress-related.	rock fall
17	COAL MINING 017: A beam failure mode manifested by flexure of the roof under the influence of its own weight plus the weight of the material underneath which is suspended from it by bolting and the weight of softer material overlying it.	flexure failure
18	COAL MINING 018: The theory that assumes that each pillar carries its full share of the overburden load provided that the width of the panel is as great as or greater than the mining depth and where the mining layout is regular, i.e. where the pillars in a panel are of the same size.	no answer

19	COAL MINING 019: A sudden spalling or collapse of the coalface caused by stress concentration at the face resulting from goaf hang-ups and presence of joints near and parallel to the surface. This happens under strong roof and floor conditions.	face break
20	COAL MINING 020: A large-scale instability involving the failure of a great number of pillars in a partial high extraction system. The massive failure is caused by tremendous pressure transmitted to the pillars by a strong roof.	pillar run
21	COAL MINING 021: The production cycle of operations in the room-and-pillar mining of coal with conventional equipment is modified from the basic cycle by the insertion of cutting to improve breakage. (a)cut+drill+blast+load+haul, (b) drill+blast+load+haul+cut, (c) blast+load+haul+cut+drill, (d) load+haul+cut+drill+blast	cut+drill+blast+load+haul
22	COAL MINING 022: A systematic means of evaluating performance and operational factors for optimizing cycle of operations in conventional mining. This is done usually with the aid of computers.	simulation
23	COAL MINING 023: An inevitable outcome from the high-extraction method of mining coal.	subsidence
24	COAL MINING 024: A coal mining support (post, bolt, peg, stake)	bolt
25	COAL MINING 025: Effect of high stress on the face. (a) difficult coal handling (b) easy coal conveying (c) harder coal cutting (d) easier coal cutting	easier coal cutting
26	COAL MINING 026: Effect of competent roofs (a) high load transfer (b) low load transfer (c) subsidence (d) stability	high load transfer
27	COAL MINING 027: Effect of corners in coal mining.(no effect, high stress concentrations, stable work place, rock falls)	high stress concentrations
28	COAL MINING 028: Dangerous joints. (a) joints striking perpendicular to the face, (b) joints striking oblique to the face, (c) joints striking parallel to the face, (d) joints striking in any directions	joints striking parallel to the face
29		
30	COAL MINING 030: If the coal is easy to cut, (a) there is a high concentration at the face (b) there is a low stress concentration at the face (c) no stress concentration exists (d) no hang-ups will occur	there is a high concentration at the face
31	COAL MINING 031: Floor heave is a result of (a) low stress concentration and weak roof (b) high stress concentration and strong roof (c) low stress concentration and weak floor (d) high stress concentration and weak floor	high stress concentration and weak floor
32	COAL MINING 032: The advantage of a strong roof in longwalling is (a) easier coal cutting (b) high stress concentration at the face (c) goaf hang-up (d) more load transferred to the abutment	easier coal cutting
33	COAL MINING 033: Disadvantage of a strong roof in longwalling is (a) low stress concentration at the face (b) harder coal to cut (c) roof failure (d) high stress concentration at the face	high stress concentration at the face
34	COAL MINING 034: When the goaf has fully developed, the extraction panel(a) is finally stable (b) undergoes the transition phase (c) stress build-up begins (d) it begins to destabilize	it begins to destabilize
35	COAL MINING 035: As the face advances, stress acting on it (increases, decreases, fluctuates, will not change)	increases
36	COAL MINING 036: When the roof caves in longwalling (a) the abutment are completely relieved of their loads (b) the stresses are redistributed (c) the load disappears (d) the load is doubled	the stresses are redistributed
37	COAL MINING 037: Violent caving of the roof happens when the (a) roof is weak (b) floor is strong (c) roof is strong (d) floor is weak	roof is strong
38	COAL MINING 038: Floor heaving happens when the (a) floor is weak and roof is strong (b) floor is strong and roof is strong (c) roof is weak and floor is weak (d) roof is strong	floor is weak and roof is strong

39	COAL MINING 039: The strength of a coal pillar is dependent upon the strength of the coal material and (height of pillar, width of pillar, structures present in the pillar, load imposed on the pillar)	structures present in the pillar
40	COAL MINING 040: Large pillars in a coal mine to protect smaller ones.	barrier pillars
41	COAL MINING 041: Failure of a coal pillar by overstress.	bump
42	COAL MINING 042: The theory which implies that upon excavation of an opening in a coal seam, the redistributed stress forms an elliptical arch.*pressure arch theory	pressure arch theory
43	COAL MINING 043: The coal mining method that best control coal bumps.	longwall mining

1	ROCK MECHANICS 001: The study of the properties, mechanical behavior of rock, and the nature of stresses underground.	rock mechanics
2	ROCK MECHANICS 002: The term used to describe the intact rock between discontinuities; a hand specimen of a piece of drill core examined in the laboratory might represent it.	rock material
3	ROCK MECHANICS 003: The total in-situ medium containing structural features.	rock mass
4	ROCK MECHANICS 004: A rock mass parameter that quantifies discontinuity by the ratio of the lengths of the individual pieces of core recovered in a drill run, having lengths of 10 cm or greater, and the total length of drill run.	rock quality designation
5	ROCK MECHANICS 005: Method of representing and analyzing the three-dimensional relations between planes and lines on a two dimensional diagram.	hemispherical projection
6	ROCK MECHANICS 006: The maximum stress that the rock material can sustain under a given set of conditions.	peak strength
7	ROCK MECHANICS 007: The stress-reduction effect given by one opening to another opening that is below and parallel to it.	shielding effect
8	ROCK MECHANICS 008: The stress that is deflected to the virgin blocks or blocks adjacent to the opening. The stress was formerly carried by the block that has been extracted in creating the opening.	abutment stress
9	ROCK MECHANICS 009: The stress existing in a rock mass before the excavation of an opening.	in-situ stress
10	ROCK MECHANICS 010: The rock in which the ore body is enclosed.	country rock
11	ROCK MECHANICS 011: Select the main reason why mechanics should be separated from classical engineering mechanics. (a) rock mechanics has more inherent complexities compared to classical mechanics. (b) in classical mechanics, the designer has a wider option for structural materials while the rock mechanics engineer does not. (c) In rock mechanics, the structural element, which is the rock, can still perform its function even if the element has failed, while in classical mechanics the load bearing capacity drops down to zero. (d) rock is weakest in tension as opposed to structural steel in classical mechanics.	c
12	ROCK MECHANICS 012: Why do rocks often fail at the crown of a tunnel? (a) because of tensile stresses. (b) they fail due to high vertical stresses. (c) Due to high horizontal stresses. (d) because of shear stresses	because of tensile stresses
13	ROCK MECHANICS 013: The stress divided by the strain.	modulus of
14	ROCK MECHANICS 014: Transverse strain divided by the longitudinal strain is _____.	poisson's ratio
15	ROCK MECHANICS 015: The ability of a material to resist a shearing force is _____.	shear strength
16	ROCK MECHANICS 016: The change in length divided by the original length is called _____.	strain
17	ROCK MECHANICS 017: The stress above which the stress-strain relationship is not anymore directly proportional.	yield point
18	ROCK MECHANICS 018: Unconfined compressive strength of a rock is (a) its resistance to compression at zero confinement (b) its ability to withstand tension (c) its resistance to sliding along a plane (d) its ability to withstand impact*its resistance to compression at zero confinement	its resistance to compression at zero confinement
19	ROCK MECHANICS 019: The stress level beyond which the material cannot take any additional load.	failure point
20	ROCK MECHANICS 020: Shear strength is a material's ability to	resist sliding on a plane
21	ROCK MECHANICS 021: Tri-axial test is a rock test that shows the following (a) shear, compressive and tensile strengths (b) shear, compressive strengths and friction angle (c) shear, compressive, tensile strengths and friction angle (d) shear, compressive, tensile strengths, friction angle and failure envelope	d
22	ROCK MECHANICS 022: Dynamic load (a) induced load (b) time-dependent load (c) load imparted by earthquake (d) load repeated frequently or cyclic load	load imparted by earthquake
23	ROCK MECHANICS 023: Stress distribution means (a) stress change brought about by a disturbance (b) stress relief (c) relaxation (d) stress buildup	stress change brought about by a disturbance

24	ROCK MECHANICS 024: Uncontrolled disruption of rock accompanied by violent release of energy.	rock burst
25	ROCK MECHANICS 025: The point load index, in rock mechanics, is reported as the point load strength of a __-mm core.	50
26	ROCK MECHANICS 026: Rocks' slake durability index, essentially, is an index to (a) strength reduction resulting from soaking (b) tenacity (c) hardness (d) abrasion resistance	strength reduction resulting from soaking
27	ROCK MECHANICS 027: The index of fissuring (IQ) of a rock is determined through measurement of its _____ properties.	acoustic
28	ROCK MECHANICS 028: Hydraulic conductivity is synonymous with...	permeability
29	ROCK MECHANICS 029: Modulus of rupture is synonymous with...	flexural strength
30	ROCK MECHANICS 030: The increase in volume associated with creation of new cracks during compression.	dilatancy
31	ROCK MECHANICS 031: It is the theoretical and applied science of the mechanical behavior of rock masses.	rock mechanics
32	ROCK MECHANICS 032: It is concerned with the mechanical responses of all geological materials including soil.	geomechanics
33	ROCK MECHANICS 033: The concept that used to described the intensity of internal forces set-up in a body under the influence of a set of applied surface force.	stress
34	ROCK MECHANICS 034: It defines the shear stress components vanish, that is possible to select a particular orientation for a plane such that it is subject to normal stress.	principal plane
35	ROCK MECHANICS 035: It ranks second to isotropic elasticity in the degree of expression of elastic symmetry in the material behavior.	modulus of elasticity
36		rock material
37	ROCK MECHANICS 037: It is the total medium containing bedding planes, faults, joints, and other structural feature.	rock mass
38	ROCK MECHANICS 038: It is the nature and distribution of structural features within the rock mass.	rock structure
39	ROCK MECHANICS 039: The fractures on which identifiable shear displacement has taken place.	faults
40	ROCK MECHANICS 040: The perpendicular distance between adjacent discontinuities.	spacing
41	ROCK MECHANICS 041: Term used to describe the aerial extent or size of a discontinuity with a plane.	persistence
42	ROCK MECHANICS 042: The distance range of discontinuity spacing which is considered as extremely close spacing. (in millimeters)	60-200*60 to 200
43	ROCK MECHANICS 043: The distance range of discontinuity spacing which is considered as very wide spacing. (in millimeters)	less than 20*<20
44	ROCK MECHANICS 044: It pertains to the surface unevenness and waiveness of the discontinuity relative to its mean plane.	roughness
45	ROCK MECHANICS 045: The distance separating the adjacent rock walls of an open discontinuity in which the intervening space is filled with air or water.	aperture
46	ROCK MECHANICS 046: The term used to describe material separating the adjacent rock walls of discontinuities.	filling
47	ROCK MECHANICS 047: It is the formation of planes of separation in the rock material.	fracture
48	ROCK MECHANICS 048: When the rock reach its maximum stress, usually averaged over a plane, that the rock can sustain under a given set of conditions.	strength
49	ROCK MECHANICS 049: It is the basic technique used in mapping surface or underground exposures.	scanline survey
50	ROCK MECHANICS 050: Set of line on the surface of the rock mass and the survey consists of recording data for all discontinuities that intersect the scan line along its length.	scanline
51	ROCK MECHANICS 051: The most reliable way of exploring the interior of a rock mass prior to mining.	core drilling

52	ROCK MECHANICS 052: The intersection of the plane and the surface of the plane.	great circle
53	ROCK MECHANICS 053: A line perpendicular to the plane and passing through the center of the sphere at two diametrically opposite points is called the _____ of the plane.	pole
54	ROCK MECHANICS 054: It is the process by which sudden loss of strength occurs across a plane following little or no permanent deformation.	brittle fracture
55	ROCK MECHANICS 055: When the rock can sustain further permanent deformation without losing load carrying capacity, this rock is experiencing...	ductile deformation
56	ROCK MECHANICS 056: It is the stress which governs the gross mechanical response of a porous material.	effective stress

1	BLASTING 001: A small plastic tube coated internally with an explosive powder so that it is capable of transmitting a shockwave along the length of the tube.	signal tube
2	BLASTING 002: A type of exploder that has a dynamo, the armature of which is manually rotated through gearing from either a plunge rock-bar or a twisting handle. It is usually used in series.	generator type
3	BLASTING 003: A type of exploder that has one or more capacitors which are charged from either a battery or dynamo having a manually rotated armature. It is suitable for series firing and most may be used to a limited extent to firing series-in-parallel circuits.	capacitor type
4	BLASTING 004: A type of exploder, which provides delay-firing intervals of predetermined duration. A manually or mechanically rotated sequence switch directs electrical energy to fire each detonator/circuit in turn as the rotating arm passes over the appropriate contact.	sequential type
5	BLASTING 005: A connection in an electrical firing circuit, which consists of a number of series, connected in parallel.	series-in-parallel connection
6	BLASTING 006: A connection in an electrical firing circuit in which the detonators are connected in parallel in a number of groups and the groups connected in series.	parallel-in-series connection
7	BLASTING 007: Gelled, saturated aqueous solutions usually containing suspended solids and consisting of water, oxidizing salts, fuel components, and various sensitizers.	water gel explosive
8	BLASTING 008: This kind of explosive consists of saturated aqueous solutions of oxidizing salts, which are finely dispersed through a continuous oil phase. They may contain additional suspended solids and various sensitizers.	emulsion explosive
9	BLASTING 009: The separation of nitroglycerin or other nitrobody from the explosive as an oily liquid which may be retained inside or appear on the outside of the wrapper.	exudation
10	BLASTING 010: The pressure wave transmitted through the air, caused by an explosion.	airblast
11	BLASTING 011: The intensity of sound which is the limit of human tolerance.	120 decibels
12	BLASTING 012: The sound intensity limit at which structural damage may occur	133 decibels
13	BLASTING 013: These are created to provide free face for subsequent production	cut-off slots
14	BLASTING 014: This method of firing is used in ore production in open and/or sublevel stoping.	ring firing
15	BLASTING 015: A term in block caving in which oversize boulders are broken at the grizzly level into sizes passable to the drawpoint.	boulder breakage
16	BLASTING 016: It is a method to destress a particular volume of a rock mass using explosives for stability reasons.	destress blasting
17	BLASTING 017: A type of controlled blasting to reduce the damage to the rock remaining after a blast.	perimeter blasting
18	BLASTING 018: An explosive ingredient whose function is to provide oxygen in the detonation process	oxidizer
19	BLASTING 019: The best fuels for explosives are those with the highest _____.	hydrogen content
20	BLASTING 020: ANFO was first commercialized in 1955 as a mixture of ___% porous prilled ammonium nitrate and ___% fuel oil (distillate), respectively.	96 and 4
21	BLASTING 021: Packaged ANFO is also available in the same form as bulk, except it is ___ kg bags.	25
22	BLASTING 022: It is a unit which when detonated increases the magnitude of detonation. It is usually positioned between the initiating device and the main charge.	booster
23	BLASTING 023: It is a round flexible cord containing a central core of high explosive and used to initiate an explosive charge.	detonating cord

24	BLASTING 024: It is a high-velocity decomposition and exothermic reaction accompanied by the liberation of vast amounts of energy and very hot gases at tremendously high pressure.	detonation
25	BLASTING 025: A detonation agent that has a speed of reaction exceeding that of sound's.	high explosive
26	BLASTING 026: A very rapid burning but not an explosion.	deflagration
27	BLASTING 027: A kind of explosive that generates no shockwave and hence no detonation pressure.	low explosive
28	BLASTING 028: This effect is due to the gas pressure action which is equally or more important than the shattering action in breaking.	explosion pressure
29	BLASTING 029: The point at which an explosive mixture has sufficient oxygen to completely oxidize all the fuels, but not excess oxygen to react with the contained nitrogen.	zero oxygen balance
30	BLASTING 030: Which of the following is an example of a low explosive? (slurry/black powder/emulsion/nitroglycerin)	black powder
31	BLASTING 031: Specially formulated mixtures that are safe to use in flammable atmospheres in underground coal mines.	permissibles
32	BLASTING 032: Mixture of AN, water, and a fuel sensitizer, either explosive or non-explosive, were developed to extend the range of properties of blasting agents.	slurry
33	BLASTING 033: An incendiary cord used to sequentially ignite safety fuses.	igniter cord
34	BLASTING 034: A cord which burns at a definite rate, and is used to initiate a plain detonator or a deflagrating explosive.	safety fuse
35	BLASTING 035: A super fine mixture of oxidizer solution encapsulated in an oil/wax matrix.	emulsion
36	BLASTING 036: A capsule of case which contains a sensitive powerful explosive used for initiating other explosives and may not contain more than 10 grams of total explosives by weight, excluding initiation or delay charges.	detonator
37	BLASTING 037: A high explosive consisting essentially of a mixture of, but not limited to nitroglycerin, nitrocellulose, ammonium nitrate, sodium nitrate, and carbonaceous material.	dynamite
38	BLASTING 038: A small shell containing an explosive compound that is ignited by electric current brought in through the lead wires.	electric squib
39	BLASTING 039: These are nearly horizontal holes drilled at the bottom of the face of the bench. After enlarging by small charges of explosive, they are blasted to bring down the bench at one or more shots.	snake holes
40	BLASTING 040: A method of blasting in which larges charges are fired in small adits driven into the face of the quarry at level of the floor.	coyote blasting
41	BLASTING 041: If the drill holes are too small to hold the necessary charge of explosives, the bottom of the holes must be enlarges. This is _____.	springing
42	BLASTING 042: The first hole or group of holes fired in a drift or tunnel face is known as _____.	cut holes
43	BLASTING 043: In straight dynamite, the term "straight" means that the (a) dynamite contains no ammonium nitrate (b) dynamite contains no nitroglycerin (c) dynamite can be detonated without primer (d) dynamite has a detonation velocity of 25,000 fps.	dynamite contains no ammonium nitrate
44	BLASTING 044: It is the percentage of nitroglycerin in the straight nitroglycerin dynamite that produces the same deflection on the ballistic mortar as an equal weight of explosive.	weight strength
45	BLASTING 045: Explosives designed for underground coal mines where the presence of explosive gases presents an abnormal blasting hazard.	permissible explosives
46	BLASTING 046: It deflagrates (rapid burning) without production of an intense shock wave. It can be set off by a flame.	low explosive
47	BLASTING 047: It is defined as an explosive susceptibility to initiation.	sensibility

48	BLASTING 048: Inert materials placed after the explosive charge used to confine explosive energy.	stemming
49	BLASTING 049: The rock that is broken by blasting outside the intended area.	back break
50	BLASTING 050: A quarry blasting method wherein succession of charges are fired in a borehole to open a chamber.	chambering
51		deck loading
52	BLASTING 052: A wall rock, usually vertical, either naturally formed or formed by blasting.	face
53	BLASTING 053: Rock that is thrown an excessive distance from the blast site.	fly rock
54	BLASTING 054: Method of blasting in coal mines where hollow cylinders are charged with liquid CO2 under a pressure of 2000 lbs/square inch.	cardox
55	BLASTING 055: The cheapest explosive next to ANFO.	slurry
56	BLASTING 056: A method of loading blasthole in which the explosive charge are separated by stemming or air cushion.	deck loading
57	BLASTING 057: It is a mixture of 90% nitroglycerin and 10% guncotton.	gelatin
58	BLASTING 058: Portion of blasthole which remains in the face after blasting.	bootleg
59	BLASTING 059: A detonator which explodes after a pre-determined fraction of a second.	delay
60	BLASTING 060: An explosive made by mixing sulfuric acid, nitric acid and glycerin.	nitroglycerin
61	BLASTING 061: The following are the effects of blasting on rock except one.(crushing/cracking/vibration propagation/weathering)	weathering
62	BLASTING 062: It is the distance between rows of blast holes parallel to the major free face.	burden
63	BLASTING 063: The main explosive charge in a detonator.	base charge
64	BLASTING 064: The had on pressure created by the detonation proceeding down the explosive column.	detonation pressure
65	BLASTING 065: A detonation of an explosive charge at a time after its designed firing time.	hangfire
66	BLASTING 066: A slot cut in a coal of soft rock face by a mechanical cutter to provide a free space for blasting.	kerf
67	BLASTING 067: An overbreak control in which a series of very closely spaced uncharged holes are drilled at the perimeter.	line drilling
68	BLASTING 068: Holes adjacent to the cutholes in a heading round.	relievers
69	BLASTING 069: The ratio of the volume of a material in its solid state to that when broken.	swell factor
70	BLASTING 070: A firing device that burns with the flash.	safety fuse
71	BLASTING 071: At an operation using explosives, who should be able to recognize explosives to be aware of their hazard potention? (a)all supervisors; (b) the whole blast crew; (c) all office staff; (d) all plant operator; (e) all of the above	all of the above
72	BLASTING 072: The VOD of ANFO is most influenced by: (temperature/prill size/charge diameter).	charge diameter
73	BLASTING 073: When watergel or emulsion explosives are stored for periods far beyond their shelf life, they generally become: (a) less sensitive to initiation; (b) hazardous to move; (c) dry and powdery; (d) completely harmless.	less sensitive to initiation
74	BLASTING 074: If any of the following items were noticed in the muckfile it would be safe to ignore and keep digging into: (detonating cord/POWERGEL/ANFO/ANZOMEX/none of these).	none of these
75	BLASTING 075: In a 75-mm diameter blasthole charged with ANFO, which detonating cord would most likely cause desensitization: (a) Silvercord, 70g/m; (b) Hexicord, 10g/m; (c) Detacord, 3.6g/m	Detacord, 3.6g/m
76	BLASTING 076: PRIMADET TLD'S are not at risk of causing firing time overlaps because: (a) delay element times are highly accurate; (b) each one must initiate the next in the sequence; (c) they are not affected by symphatetic detonation.	delay element times are highly accurate

77	BLASTING 077: With the PRIMADET system it is possible to initiate up to how many separately timed charges?	30
78	BLASTING 078: When delay detonators get old, the delay times generally (get longer/remain constant/get shorter).	get longer
79	BLASTING 079: If a cartridge of explosives containing a detonator gets jammed half way down a blasthole you (a) may push it firmly down with a wooden pole; (b) may charge ANFO up to the normal height; (c) must abandon the hole; (d) may pull it firmly back out of the obstruction.	may charge ANFO up to the normal height
80	BLASTING 080: Which of the following items are safe from explosion in the presence of a lightning storm? (safety fuse/POWERGEL blasting agents/non-electric detonator/ANFO in blastholes/detonating cord)	safety fuse
81	BLASTING 081: If you find several lengths of PRIMADET signal tube sticking out from an area of poorly broken ground, would you (a) examine the tubing to see if it has fired; (b) wash down the area with lots of water; (c) evacuate the area and supervise digging out; (d) mark the area and supervise its digging out; (e) redrill, charge and fire a relieving hole near it.	examine the tubing to see if it has fired
82	BLASTING 082: It is possible to determine if a length of PRIMADET tubing has fired by: (a) the cahnge in colour of the outer covering; (b) cutting the tube and smelling the burnt powder; (c) the presence of loose powder inside the tubing	the presence of loose powder inside the tubing
83	BLASTING 083: Unauthorized fuel should not be used in ANFO because of: (a) loss of water resistance; (b) danger of fire or explosion; (c) lack of energy output.	danger of fire or explosion
84	BLASTING 084: In the Bunch Block of a PRIMADET TLD it is important not to put together (a) more than 3 signal tubes; (b) heavy dury signal tubes; (c) signal tubes with J hooks attached; (d) detonating cord and signal tubes.	detonating cord and signal tubes

1	MINERAL RESOURCES 001: Within the Baguio District, where can you find the bonanza deposits occur within the brecciated rim of the Balatoc plug?	Acupan
2	MINERAL RESOURCES 002: Numerous occurence of porphyry-type mineralization that have been identified. (Zambales Deposit, Sipatay, Negros deposit, Marinduque deposit, all of the above)	all of the above*all
3	MINERAL RESOURCES 003: The type of copper deposits of Lepanto Consolidated Mining Company located at Mankayan, Benguet.	vein type*vein
4	MINERAL RESOURCES 004: What province can you find the biggest single deposit of refractory chromite in the Philippines?	Zambales
5	MINERAL RESOURCES 005: The copper deposit contains recoverable concentrations of molybdenum.	maricalum mining corporation*maricalum
6	MINERAL RESOURCES 006: The Nickel ore in Hinatuan, Surigao del Norte.	garnierite type*garnierite
7	MINERAL RESOURCES 007: One of the largest producer of nickel in the country located in Palawan.	rio tuba nickel mining corporation*rio tuba
8	MINERAL RESOURCES 008: Nickel ores characterized by high iron content (40-50%), and relatively low nickel (0.5-15%), cobalt (0.05-2%), magnesia (<5%), and silica (<10%).	limonite type*limonite
9	MINERAL RESOURCES 009: Mine which is located at Paracale, Camarines Norte.	United Paragon Mining Corporation

1	MINING LAWS 001: Mine Waste and Tailings Disposal is also known as _____:	P.D. 1251
2	MINING LAWS 002: Absolute ownership of both surface and minerals.	Philippine Bill of 1902
3	MINING LAWS 003: The Indigenous People's Rights Act of 1997	R.A. 8371
4	MINING LAWS 004: The Philippine Mining Act of 1995.	R.A. 7942
5	MINING LAWS 005: The exact date of the approval of R.A. 7942.	March 3, 1995
6	MINING LAWS 006: A document granted to a qualified person for the extraction and utilization of Quarry Resources.	quarry permit
7	MINING LAWS 007: Occupation fee for exploration permit per hectare or fraction thereof per annum.	P5.00
8	MINING LAWS 008: Toxic substances hazardous and nuclear wastes control act of 1990.	R.A. 6969
9	MINING LAWS 009: Extended the implementing validity of P.D. 463.	E.O. 211
10	MINING LAWS 010: The term for MPSA.	25 years renewable for a like period
11	MINING LAWS 011: FTAA means	Financial or Technical Assistance Agreement
12	MINING LAWS 012: MPSA means	Mineral Production Sharing Agreement
13	MINING LAWS 013: The exact date of the approval of R.A. 7076.	June 27, 1991
14	MINING LAWS 014: Revised implementing rules and regulations of R.A. 7942.	DAO No. 96-40
15	MINING LAWS 015: The number of years of cost recovery period	5 years
16	MINING LAWS 016: The Philippine Environmental Impact Statement System.	P.D. 1586
17	MINING LAWS 017: Sand and Gravel Law	MAO No. MRD 27
18	MINING LAWS 018: Maximum area for exploration permit on shore in any province that corporation may hold.	1000 blocks
19	MINING LAWS 019: A provincial governor may grant permit offshore that corporations may hold.	2 hectares
20	MINING LAWS 020: The Mines Adjudication Board shall be composed of how many members?	three members
21	MINING LAWS 021: Occupation fee for Minerals Agreements and Financial or Technical Assistance Agreement.	P50.00
22	MINING LAWS 022: Occupation fee for Mineral Preservation.	P100.00
23	MINING LAWS 023: Maximum area for Mineral Agreement onshore in the entire Philippines that a corporation may hold.	200 blocks
24	MINING LAWS 024: Maximum area for Mineral Agreement offshore in the entire Philippines that a corporation may hold.	500 blocks
25	MINING LAWS 025: Cancellation of Exploration Permit Mineral Agreement and FTAA is due to the failure to pay the taxes and fees due the government for (3 consecutive years/3 separate years/2 consecutive eyars/2 separate years).	2 consecutive years
26	MINING LAWS 026: Any person undertaking exploration work illegally, upon conviction, be penalized by a fine of not exceeding _____ pesos.	P50,000
27	MINING LAWS 027: Upon conviction, any person guilty of theft of minerals may be subject to imprisonment from (6 months to 6 years/6 years to 12 years/2 months to 12 years/12 years to 24 years).	6 months to 6 years
28	MINING LAWS 028: The president of the Philippines who approved the R.A. 7942.	Fidel V. Ramos
29	MINING LAWS 029: The maximum contact area onshore for FTAA that may be granted for qualified person.	1,000 meridional blocks
30		onshore
31	MINING LAWS 031: The maximum area for Quarry Permit.	5 hectares
32	MINING LAWS 032: The maximum area for Small-Scale Mining Permit.	20 hectares
33	MINING LAWS 033: One meridional block contains how many hectares?	81 hectares

34	MINING LAWS 034: Maximum contract area offshore for FTAA that may be granted for qualified persons	4,000 blocks
35	MINING LAWS 035: Mineral Resources Development Decree of 1974.	P.D. 463
36	MINING LAWS 036: Revised water usage classification Water Quality criteria.	DAO No. 34
37	MINING LAWS 037: Revised effluent regulators of 1990.	DAO No. 35
38	MINING LAWS 038: Amending the revised rules and regulations implementing P.D. 1586.	DAO No. 21
39	MINING LAWS 039: Providing for programmatic compliance procedures within the EIS System, supplementing DAO No. 21.	DAO No. 11
40	MINING LAWS 040: Excise tax for gold according to Revenue Regulations No. 13-94.	2 percent
41	MINING LAWS 041: Excise tax for Indigenous Petroleum of the Fair International market price on the first taxable sale.	15 percent
42	MINING LAWS 042: The extraction or disposition of minerals	utilization
43	MINING LAWS 043: Revised Air Quality Standards of 1992.	DAO No. 14
44	MINING LAWS 044: Excise tax for coal and coke.	P10.00/MT
45	MINING LAWS 045: Local Government Code of 1995.	R.A. 7160
46	MINING LAWS 046: Omnibus Investment Code of 1987.	E.O. 226
47	MINING LAWS 047: Mining processing permit shall be issued by the (MGB Director/Mines Regional Director/DENR Secretary/CENRO).	DENR Secretary
48	MINING LAWS 048: The maximum are under industrial sand and gravel permit, granted by the PMCRB which a qualified person may hold at one time is...	5 hectares
49	MINING LAWS 049: The doctrine that states that all minerals belong to the state.	Regalian Doctrine
50	MINING LAWS 050: All submerged lands in the exclusive economic zone of the Philippines are declared as (Marine Reservations/Offshore Reservations/Mineral Reservations/Aquatic Reservations).	Mineral Reservations
51	MINING LAWS 051: The primary government agency responsible for the conservation, management, development and proper use of the country's mineral resources.(MGB/Department of Mineral Resources/Dept of Energy/DENR)	Department of Environment and Natural Resources
52	MINING LAWS 052: One example of Mineral Agreement is the (Financial or Technical Assistance Agreement/Mining Lease Contract/Mineral Production Sharing Agreement/Quarry Permit)	Mineral Production Sharing Agreement
53	MINING LAWS 053: All proposed Mineral Agreement is the (a)The region where the subject areas are located; (b) The Miners and Geosciences Bureau Central Office; (c) the district office of the Mines and Geosciences Bureau; (d) DENR Central Office.	The region where the subject areas are located
54	MINING LAWS 054: A proposed Mineral Agreement is approved by the (a) Mines and Geosciences Bureau Director; (b) Miners and Geosciences Bureau Regional Director; (c) DENR Secretary; (d) President.	DENR Secretary
55	MINING LAWS 055: Mineral Agreement shall have a term of how many years, renewable for another term?	25 years
56	MINING LAWS 056: The New Mining Act, R.A. 7942, states that small-scale mining shall continue to be governed by _____.	R.A. 7076
57	MINING LAWS 057: Any qualified person may apply for a Quarry Permit to the (a) Miners and Geosciences Bureau Director; (b) DENR Secretary; (c) Provincial Governor; (d) Provincial/City Mining Regulatory Board.	Provincial Governor
58	MINING LAWS 058: To extract sand and gravel, quarry, or loose unconsolidated materials in pursuit of its projects, any government entity may be granted a _____.	gratuitous permit
59	MINING LAWS 059: No person shall engage in the processing of minerals without first securing a _____.	Minerals Processing Permit
60	MINING LAWS 060: No person under the age of __ years shall be employed in any phase of mining operations.	16

61	MINING LAWS 061: Except during exploration, mining operations are required to be covered by Environmental Clearance Certificates (ECC) based largely on (a) Initial Environmental Examination; (b) Project Description; (c) Environmental Impact System; (d) Environmental Impact Assessment.	Environmental Impact Assessment
62	MINING LAWS 062: Hearing and deciding on cases involving mining disputes shall be the responsibility of the _____.	Panel of Arbitrators
63	MINING LAWS 063: The total share in a Mineral Production Sharing Agreement (MPSA) shall be the (Income Tax/Royalty/Excise Tax/Ad Valorem Tax on mineral products).	Excise Tax
64	MINING LAWS 064: In allocating occupation fees collected from mining contractors ____ (percent) goes to the province while the balance goes to the municipality concerned.	30 percent
65	MINING LAWS 065: Of the investment guarantees provided in the New Mining Act, _____ is not included. (a) repatriation of investments; (b) remittance of earnings; (c) freedom from expropriation; (d) full tax exemption	Full Tax Exemption
66	MINING LAWS 066: The New Mining Act was passed by the _____ Congress in 1995.	Ninth
67	MINING LAWS 067: The mining law that immediately preceded the New Mining Act was (E.O. No. 279/R.A. No. 7076/P.D. No. 463/R.A. No. 7160)	Executive Order No. 279
68	MINING LAWS 068: It is referred to as the Mining Engineering Law of the Philippines	R.A. 4274
69	MINING LAWS 069: At least one registered mining engineer and one registered foreman are required fro an entire operation employing (25 to 50/51 to 100/101 to 150/151 to 200) persons directly engaged in mining and/or quarrying	25 to 50 persons
70	MINING LAWS 070: It refers to co-production, joint venture or mineral production sharing agreement between the State and small-scale mining contractor for the small-scale utilization of a plot of mineral land.	Small-scale Mining Contract
71	MINING LAWS 071: One of these persons is not a member of the Provincial Mining Regulatory Board: (a) Small-scale mining representative; (b) Big-scale mining representative; (c) Provincial Governor's representative; (d) Mines and Geosciences Bureau Director.	Mines and Geosciences Bureau Director
72	MINING LAWS 072: The People's Small-scale Mining Protection Fund shall be ___ % of the national government share of the internal revenue tax or production share due to the Government.	15 percent
73	MINING LAWS 073: Under the Local Government Code, small-scale mining shall be within the regulatory functions of the (DENR Secretary/Provincial Governor/Mines and Geosciences Bureau Director/Municipal Mayor).	Provincial Governor
74	MINING LAWS 074: Under the "People's Small-scale Mining Act of 1991" the extent of a small-scale mining area that may be awarded to the qualified shall not exceed ___ hectares.	20 hectares
75	MINING LAWS 075: One form of mineral agreement between the Government and the Contractor wherein the Government shall provide inputs to the mining operations other than the mineral resource is the _____.	Co-Production Agreement
76	MINING LAWS 076: A Financial of Technical Assistance Agreement is negotiated by the DENR and approved by the _____.	President
77	MINING LAWS 077: The Siruma White Clay Mineral Reservation is situated in what province?	Camarines Sur
78	MINING LAWS 078: It refers to an area bounded by one-half (1/2) minute of latitude and one-half (1/2) minute of longitude, containing approximately eighty-one hectares.	one merigional block
79	MINING LAWS 079: It refers to the water, sea bottom and subsurface measured from the baseline of the Philippine archipelago up to two hundred (200) nautical miles offshore.	Exclusive Economic Zone

80	MINING LAWS 080: The landward side of the mean low tide level including submerged lands in lakes, rivers and creeks.	onshore
81	MINING LAWS 081: It is an area closed to mining application (military zone/mineralized area/forest land/land covered by an expired mining permit)	military zone
82	MINING LAWS 082: An area where mineral resources are found.	mineral land
83	MINING LAWS 083: An act reducing the retirement age of underground mine workers.	R.A. 8556
84	MINING LAWS 084: It is an instrument issued by the Mines and Geosciences Bureau for the conduct of exploration with a term of two years, renewable for like period but not to exceed six years.	exploration permit
85	MINING LAWS 085: An exploration permit within mineral reservation is approved and issued by the:	MGB Director
86	MINING LAWS 086: Which of the following does not belong to the group? (Joint Venture/Co-production sharing agreement/Mineral Agreement/Exploration Permit).	Exploration Permit
87	MINING LAWS 087: The mineral processing should be prepared and signed by a _____.	metallurgical engineer
88	MINING LAWS 088: It is a permit issued for the extraction, removal and disposition of sand and gravel and other loose or unconsolidated materials covering an area of not more than 5 hectares for a term of 5 years, renewable for like periods up to 25 years.	industrial sand and gravel permit
89	MINING LAWS 089: It is a permit issued for the extraction, removal and disposition of sand and gravel and other loose or unconsolidated materials covering an area of not more than for a non-renewable period of 60 days.	exclusive sand and gravel permit
90	MINING LAWS 090: It is a permit issued for the extraction, removal and disposition of sand and gravel and other loose or unconsolidated materials covering an area of not more than 5 hectares, renewable for like periods.	commercial sand and gravel permit
91	MINING LAWS 091: It is an instrument issued for the extraction, removal and disposition of sand and gravel and other loose or unconsolidated materials for public infrastructure projects covering an area of not more than 2 hectares with a term not to exceed 1 year.	government gratuitous permit
92	MINING LAWS 092: Private gratuitous permit is only good for how many days?	60 days
93	MINING LAWS 093: It is an instrument issued for the extraction, removal, disposition and/or utilization of loose unconsolidated bat/bird excreta and other organic fertilizer deposits in specific caves and/or confined sites for a term of 1 year with area of not more than 5 hectares.	guano permit
94	MINING LAWS 094: A gratuitous permit should only extract not more than ____ kg.	2,000 kilograms
95	MINING LAWS 095: It is an instrument issued for the processing of minerals with a term of 5 years renewable for like periods up to 25 years.	mineral processing permit
96	MINING LAWS 096: It is an authority issued for the transport and/or shipment of minerals and/or products.	ore transport permit
97	MINING LAWS 097: The FTAA is applied to (all minerals/metallic minerals only/all minerals except energy minerals/non-metallic minerals)	metallic minerals only
98	MINING LAWS 098: The rate at which excise tax is levied on gold and chromite.	2 percent
99	MINING LAWS 099: The occupation fee per hectare or a fraction thereof per year for mineral agreements and FTAA outside mineral reservations.	P50.00
100	MINING LAWS 100: The law otherwise known as the "Indigenous Peoples' Rights Act".	R.A. 8371

1	MINE ECONOMICS 001: The mine assets are considered valuable when they are able to produce and process the ore to a marketable/salable form.	plant and equipment
2	MINE ECONOMICS 002: An assay tone is (20/29.199/26.93/30) grams.	29.167
3	MINE ECONOMICS 003: A 12-karat gold is __% gold.	50
4	MINE ECONOMICS 004: Void/pore spaces within a material expressed as a percentage of the total volume of material is called _____.	porosity
5	MINE ECONOMICS 005: Mineral that has sufficient utility and value that can be extracted at a profit.	ore
6	MINE ECONOMICS 006: The type of sampling where each part of the whole mass has an equal chance of being included in the sample.	probability sampling
7	MINE ECONOMICS 007: It is the money paid for the use of borrowed capital or money gained from the use of loaned capital or money.	interest
8	MINE ECONOMICS 008: It is a series of uniform payment occurring or payable at the end of each period (usually annually).	annuity
9	MINE ECONOMICS 009: The ratio of earnings from an investment to amount invested for a specified period.	interest ratio
10	MINE ECONOMICS 010: The rate of interest which deducts all the earnings of a future sum to time.	discount rate
11	MINE ECONOMICS 011: The accounting process of converting the cost of an asset into an expense account or cost over its estimated life.	depreciation
12	MINE ECONOMICS 012: The sum of money that is invested today that would be equivalent to a future sum.	present value
13	MINE ECONOMICS 013: The cost which is dependent upon the output or volume of production.	direct cost
14	MINE ECONOMICS 014: The worth of an asset at the end of its economic life.	salvage value
15	MINE ECONOMICS 015: The volume of production at which the total revenue equals the total cost.	break-even volume
16	MINE ECONOMICS 016: The present value will always be ____ the future value.	less than
17	MINE ECONOMICS 017: The compensation of an exhaustible natural resource to produce products or services.	depletion
18	MINE ECONOMICS 018: Investment cost that is written off for the purpose by way of depreciation, depletion or amortization over a period of time.	non-cash cost
19	MINE ECONOMICS 019: It refers to the money necessary to operate a business on a day-to-day basis and includes raw material inventory accounts receivable and ready cash.	working capital
20	MINE ECONOMICS 020: The effect of porosity in the ore.(a) decrease in volume without any addition to weight; (b) decrease in volume with increase in weight; (c) increase in volume without any addition in weight; (d) increase in volume	increase in volume without any addition to weight
21	MINE ECONOMICS 021: When price is above the equilibrium price, the quantity supplied exceeds the quantity demanded resulting to _____.	surplus
22	MINE ECONOMICS 022: The minimum price set on a good or commodity.	floor price
23	MINE ECONOMICS 023: The density of ore in which the voids are considered but excluding the moisture content.	rock specific gravity-dried
24	MINE ECONOMICS 024: It is the present worth of future earning minus the present discounted expenditures necessary to ring the mine into production.	purchase price
25	MINE ECONOMICS 025: Refers to the statistical data that are collected, observed or recorded at regular time intervals	time series
26	MINE ECONOMICS 026: The difference between the total cost or producing the commodity and its selling price.	profit spread
27	MINE ECONOMICS 027: Ratio that compares the price of a commodity against a chosen standard or average price which is taken as 100%.	commodity price index
28	MINE ECONOMICS 028: Shows the trends of business and economic conditions.	business cycle
29	MINE ECONOMICS 029: The price at which the quantity demanded equals the quantity supplied	equilibrium price

30	MINE ECONOMICS 030: The total interest earned which is directly proportional to the amount borrowed, the interest rate and the number of interest periods for which the amount loaned or principal is used.	simple interest
31	MINE ECONOMICS 031: The interest charges for any interest period based on the remaining amount of the principal plus any accumulated interest charges at the beginning of the period	compound interest
32	MINE ECONOMICS 032: Refers to the interest rate quoted as an annual rate compounded at a certain number of periods other than one year.	nominal interest rate
33	MINE ECONOMICS 033: The ratio of the amount of the annual return to the total amount invested.	effective interest rate
34	MINE ECONOMICS 034: Refers to the compounding of the earned or accrued interest and principal at the end of each finite-length period.	discrete compounding
35	MINE ECONOMICS 035: Refers to the compounding of the accrued interest and principal continuously or at every moment of time.	continuous compounding
36	MINE ECONOMICS 036: Series of uniform payments according or payable at the end of each period for n periods.	annuity
37	MINE ECONOMICS 037: Refers to the annuity that is due or payable at the start of the interest period.	annuity due
38	MINE ECONOMICS 038: Refers to the annuity that is due or payable at the end of the interest period.	immediate annuity
39	MINE ECONOMICS 039: Refers to the annuity in which first payment begins at some date later than the end of the first period.	deferred annuity
40	MINE ECONOMICS 040: Refers to the sum of money that would be invested today to be equivalent to a future some or value that will accrue over a certain period of time.	present value
41	MINE ECONOMICS 041: Causes a given present value to accrue or accumulate to a given future amount or value.	discount rate
42	MINE ECONOMICS 042: To pay an amount by periodically charging off a portion of the amount usually by means of a sinking fund.	amortize
43	MINE ECONOMICS 043: As the loan is repaid, the total unpaid balance draws interest until the remaining balance is paid.	diminishing annuity
44	MINE ECONOMICS 044: Difference between total revenue and total cost.	profit
45	MINE ECONOMICS 045: Refers to the available capital or funds necessary to sustain normal producing operations.	working capital
46	MINE ECONOMICS 046: Costs which remain relatively constant regardless of the level of activity.	indirect costs
47	MINE ECONOMICS 047: Costs which varies in direct proportion to output or volume.	variable costs
48	MINE ECONOMICS 048: Costs which contain both fixed and direct costs.	semi-variable costs
49	MINE ECONOMICS 049: All product costs other than raw materials and direct labor.	overhead costs
50	MINE ECONOMICS 050: Sum of variable and fixed costs incurred in producing certain quantity or output.	total costs
51	MINE ECONOMICS 051: Product of the quantity or output sold at the set selling price.	total revenue
52	MINE ECONOMICS 052: A measurement in monetary terms, for the use of resources for some purpose.	cost
53	MINE ECONOMICS 053: Expenditures for the purchase of plant and equipment.	capital expenditures
54	MINE ECONOMICS 054: The capital expenditure required to start a project and carry it to an operational level.	first cost
55	MINE ECONOMICS 055: Costs incurred in the various phases of operations geared towards production.	operating costs
56	MINE ECONOMICS 056: Ordinary costs required for the upkeep of property and restoration required when equipment are damaged but not replaced	maintenance costs

57	MINE ECONOMICS 057: The level of volume of sales where marginal income equals the total fixed costs.	break-even point
58	MINE ECONOMICS 058: A report used to evaluate the performance of a project or a business by comparing its revenue and its related expenses for a particular period.	income statement
59	MINE ECONOMICS 059: Refers to the total value of the products produced for a particular period.	revenue
60	MINE ECONOMICS 060: Those directly derived from the operations of the business or project, like sales, commissions and fees earned for service business.	operating revenues
61	MINE ECONOMICS 061: Those derived from other sources aside from the main project like interests, dividends, rentals and royalties.	non-operating revenues
62	MINE ECONOMICS 062: Refer to all expenditures incurred for a particular period in connection with the operation of the project or business.	expenses
63	MINE ECONOMICS 063: Represents the excess revenue earned over the related expenses for a given period.	net income
64	MINE ECONOMICS 064: Economic resources owned by a business entity which are used in the generation of income or revenue out of the operations.	assets
65	MINE ECONOMICS 065: Assets that have definite physical forms, such as land.	tangible assets
66	MINE ECONOMICS 066: Assets that do not physically exists, such as legal claims or rights.	intangible assets
67	MINE ECONOMICS 067: Debts or obligations of a business.	liabilities
68	MINE ECONOMICS 068: Those that may be paid within one year or within the operating cycle, whichever is longer.	current liabilities
69	MINE ECONOMICS 069: Liability arising from the purchase of goods or services on credit.	account payable
70	MINE ECONOMICS 070: A liability arising from loans where there is a formal written promise to pay a certain amount of money plus interest at a definite future time.	note payable
71	MINE ECONOMICS 071: Represents the amount invested in the business by its owners.	capital stock
72	MINE ECONOMICS 072: The basic capital stock which possesses the basic rights of ownership which are the right to vote, etc.	common stock
73	MINE ECONOMICS 073: It is used to recover previous investment.	non-cash cost
74	MINE ECONOMICS 074: The method used to measure the profitability of an investment.	profitability analysis
75	MINE ECONOMICS 075: The chance/probability of the elements or parts of a mass or body of being included in the sample cannot be estimated/determined.	non-probability sampling
76	MINE ECONOMICS 076: In this type of non-probability sampling, various groups in the population are determined and the sample is drawn/taken to have the same percentage/number or quantity in it.	quota sampling
77	MINE ECONOMICS 077: It refers to a large group of units/elements/parts comprising the total units/elements/parts under investigation from which facts of interest are gathered. We can equate this term to a mass or body of rocks.	population or universe
78	MINE ECONOMICS 078: It refers to the representative portion of a universe/population or a mineral mass/body. It can be an element or portion, unit or an element.	sample
79	MINE ECONOMICS 079: Which is the most precise in choosing of sampling method? (a) depends upon the nature of the deposit; (b) depends upon the number or size of sample; (c) depends upon the character of the mineral occurrence/deposit; (d) based on the concept of the randomness	depends upon the character of the mineral occurrence/deposit
80	MINE ECONOMICS 080: Which is different from the group: (a) dump samples/stockpile samples; (b) placer samples; (c) borehole/drill hole samples; (d) bulk or grab samples	bulk or grab samples

81	MINE ECONOMICS 081: A type of drillhole sampling (specifically core drilling) where a reservoir called a Calyx collects the core and sludge, which are collected as samples. (a) drive-pipe; (b) churn; (c) long-hole drilling; (d) none of the above	none of the given choices
82	MINE ECONOMICS 082: The act of enriching or impoverizing (that is, introducing or removing values from) the samples for test purposes either intentionally or accidentally.	sample salting
83	MINE ECONOMICS 083: It refers to the degree of the relative importance or weight or influence that a sample exerts on or affects the true value when combined with other samples. (central limit theorem / statistics / sample weighing or sample influence / area of influence)	sample weighing or sample influence
84	MINE ECONOMICS 084: It measures the relative variations or deviation of values from the mean. This is also known as the coefficient of uniformity.	coefficient of variation
85	MINE ECONOMICS 085: It refers to the error committed in the determination of the sample mean, relative to the true value of the ore body.	relative error of the mean
86	MINE ECONOMICS 086: It is the present worth of future earnings minus the present discounted expenditures necessary to bring the mine into production.	purchase price
87	MINE ECONOMICS 087: In a general sense it is a measurement of the use of resources for some purpose expressed in monetary terms.	cost
88	MINE ECONOMICS 088: Those cost which remain relatively constant regardless of the level of activity.	fixed or indirect cost
89	MINE ECONOMICS 089: Which is not a variable or direct cost? (royalties/raw materials/labor/depreciation)	depreciation
90	MINE ECONOMICS 090: Which is not a direct cost? (labor/supplies/maintenance/supervision)	maintenance
91	MINE ECONOMICS 091: Those cost which vary in direct proportion to the output or volume	variable or direct cost
92	MINE ECONOMICS 092: ____ is a method of ore reserve estimation that involves the application of the mathematics or random functions to the reconnaissance of mineral deposits.	geostatistics
93	MINE ECONOMICS 093: The consumption of an exhaustible natural resource to produce products or services is termed as _____.	depletion
94	MINE ECONOMICS 094: Which is not considered as operating cost? (labor / power and fuel / supplies and materials / plant and equipment)	plant and equipment
95	MINE ECONOMICS 095: Which is not considered as capital cost? (mine development / exploration / acquisition of property / maintenance)	maintenance cost
96	MINE ECONOMICS 096: It refers to the amount of revenue left after deducting variable cost.	marginal income or distribution
97	MINE ECONOMICS 097: Difference between the total revenue and direct cost.	gross margin
98	MINE ECONOMICS 098: Difference between total revenue and total cost.	profit
99	MINE ECONOMICS 099: Product of the quantity/volume or output sold at the set selling price.	total revenue
100	MINE ECONOMICS 100: The total revenue does not include ___ and ___. (a) operating costs and fixed income; (b) fixed income and non-operating income; (c) maintenance cost and operating cost; (d) gross income and profit	maintenance cost and operating cost
101	MINE ECONOMICS 101: The ways to increase profit is to (a) increase the selling price; (b) increase the volume to increase sales; (c) decrease selling price to increase sales (d) all of the above	all of the given choices
102	MINE ECONOMICS 102: Marginal income expressed as a percentage of revenue (sales)	marginal income ratio
103	MINE ECONOMICS 103: Which of the following variables affect profit? (a) change in selling price or number of units; (b) change in total fixed cost; (c) change in variable cost; (d) all of the above	all of the aforementioned

104	MINE ECONOMICS 104: In sampling, the number or size of samples depends upon the nature of the deposit. In general, _____ deposits require fewer samples compared to that of _____ deposits	homogeneous,heterogeneous
105	MINE ECONOMICS 105: Which is not a non-probability sampling? (a) systematic sampling; (b) accidental or incidental sampling; (c) quota sampling; (d) purposive sampling*systematic sampling*a	systematic sampling
106	MINE ECONOMICS 106: Which is not a probability sampling? (a) simple random sampling; (b) multi-stage sampling; (c) systematic sampling; (d) statistical sampling	statistical sampling
107	MINE ECONOMICS 107: The two types of dump/stockpile sampling are (a) stratified and random; (b) trenching and test pitting; (c) channeling and trenching; (d) test pitting and grubbing	trenching and test pitting
108	MINE ECONOMICS 108: To be able to determine the consistency or grave of the entire mass, all of the whole mass should be taken and subjected to appropriate test which will give as the ____ of its consistency. (sample value / true value / true consistency / approximate value)	true value
109	MINE ECONOMICS 109: It refers to a range of value set about which the mean, at a certain degree of confidence will lie with such range of values.	confidence interval or fiducial interval
110	MINE ECONOMICS 110: It refers to the probability of certainty, i.e. the most common ____ are 95% and 99% which means that there is only 5% and 1%, respectively, room for error that the man will not lie within the confidence interval.	degree of confidence
111	MINE ECONOMICS 111: If refers to the least mining width that a vein can be mined conveniently at the least dilution.	minimum stoping width
112	MINE ECONOMICS 112: Cost which contain both fixed and variable cost: the increase in cost as a result of changes in the volume/output but not in direct proportion to the volume	semi-variable or mixed cost
113	MINE ECONOMICS 113: Which is not a fixed or indirect cost? (rent / insurance / property taxes / royalties)	royalties
114	MINE ECONOMICS 114: All product costs other than raw materials and direct labor.	overhead costs
115	MINE ECONOMICS 115: The isopach method of ore reserve estimation relies mainly in ___.	contour
116	MINE ECONOMICS 116: (triangle method / cross-section method / general milling method / inverse distance) is a statistical method of reserve estimation.	inverse distance
117	MINE ECONOMICS 117: The specific gravity of an ore is an expression of the ratio of the density of that ore to the _____.	density of water
118	MINE ECONOMICS 118: The area of the cross-section of an ore body is determined using _____	planimeter
119	MINE ECONOMICS 119: A prediction that involves the explanation of events which will occur at some future time.	forecasting
120	MINE ECONOMICS 120: Method or tool of forecasting that consists of finding the equation of a line.	least square method
121	MINE ECONOMICS 121: It is a list of prices and the quantities that a supplier or group of suppliers would be willing and able to offer for sale over a period of time	demand
122	MINE ECONOMICS 122: When price is below equilibrium, quantity demanded exceeds quantity supplied resulting in ____.	shortage
123	MINE ECONOMICS 123: The average/mean value that is based upon the most number of occurring values.	mode
124	MINE ECONOMICS 124: The expression "x + or minus 1.96" is known as the _____. (a) confidence interval; (b) 95% confidence interval; (c) 99% confidence interval; (d) 100% confidence interval	95% confidence interval
125	MINE ECONOMICS 125: The expression "1/(1+r)^n" is known as the _____.	discount factor

126	MINE ECONOMICS 126: The accelerated depreciation that is based upon the ration of the remaining years of useful life to the sum of the years of useful life is called _____.	sum-of-the-years-digit depreciation
127	MINE ECONOMICS 127: Rentals, taxes, interest, depletion are examples of what kind of cost?	indirect cost
128	MINE ECONOMICS 128: The financial report which shows the financial position of a business entity by summarizing all its assets, liabilities and owner's equity is the _____.	balance sheet
129	MINE ECONOMICS 129: The obligations of a business entity that may be paid within one year or within the operating cycle are known as _____.	current liabilities
130	MINE ECONOMICS 130: The valuation method which considers uniform earnings during the life of the mine and provides for the redemption of the capital investment at the end of the life of the mine is known as.	Hoskold Present Value
131	MINE ECONOMICS 131: The percentage of income earned by a project to the capital invested in the project is known as the _____.	Rate of Investment
132	MINE ECONOMICS 132: The practice of financing assets with borrowed capital is termed _____.	leverage
133	MINE ECONOMICS 133: Moisture which an ore could possibly hold which is also the moisture of saturation	mineral specific gravity and porosity
134	MINE ECONOMICS 134: Tonnage of ore depends on (a) grade at time of examination/evaluation; (b) cost-price relationship of projected mining method (include cut-off grade); (c) rate of output; (d) all of the these	all of these (d)
135	MINE ECONOMICS 135: _____ is the writing-off or extinguishing of or repayment of a borrowed capital or loan by charging off or setting aside periodically a certain amount of money or sum from an earning or income.	amortization of capital
136	MINE ECONOMICS 136: _____ is an account to which periodic payments or changes (usually yearly) are made for the purpose of recovering or replacing a capital investment.	sinking fund
137	MINE ECONOMICS 137: The required sum of capital to fund a project is usually made available at the beginning of the project and a portion of the earnings is set aside regularly to repay the total capital (oftentimes in the form of a loan).	diminishing annuity
138	MINE ECONOMICS 138: _____ is the allocation of the cost of a plant asset to the periods in which the asset is useful and productive.	depreciation
139	MINE ECONOMICS 139: _____ allocates the cost of an asset equally to each year of its useful life.	no answer*pass
140	MINE ECONOMICS 140: _____ recognizes relative large amounts of depreciation in the early years of use and reduced amounts in the later years.	accelerated depreciation
141	MINE ECONOMICS 141: _____ refers to the actual number of years that the asset is kept.	service life
142	MINE ECONOMICS 142: The _____ of an asset is the number of years of use that minimizes the equivalent cost of holding the item (asset)	economic life
143	MINE ECONOMICS 143: _____ the depreciation cost is multiplied each year by a fraction of which the numerator is the remaining years of useful life and the denominator is the sum of the years of useful life.	sum-of-the-years digit method*sum-of-the-years digit*syd
144	MINE ECONOMICS 144: _____ is the pro-rate allocation of the cost of a natural resource to the number of units removed.	depletion
145	MINE ECONOMICS 145: _____ the cost of an asset is divided by the estimated units of output during the useful life of the asset.	units-of-output method
146	MINE ECONOMICS 146: _____ is present worth of future earnings minus the present discounted expenditures necessary to bring the mine into production.	purchase price
147	MINE ECONOMICS 147: _____ charged before the mineral or mineral product is extracted and sold.	excise tax
148	MINE ECONOMICS 148: _____ difference between the total revenue and direct costs.	gross margin

149	MINE ECONOMICS 149: The proportions of various sub-groups in the population are determined and the sample is drawn/taken to have the same percentage/number or quantity in it.	quota sampling
150	MINE ECONOMICS 150: An identified or selected group is sampled.	proposive sampling
151	MINE ECONOMICS 151: Each and every element in the population has an equal chance of being drawn or included in the sample.	simple random sampling
152	MINE ECONOMICS 152: Sampling - samples to be taken are selected in a predetermined order.	biased random
153	MINE ECONOMICS 153: The elements of a population are grouped into a hierarchy of units and sampling is done in successive units or in stages	multi-stage sampling
154	MINE ECONOMICS 154: Applied to on-homogeneous population where it is subdivided into homogeneous groups called strata from which the samples are taken.	stratified sampling
155	MINE ECONOMICS 155: _____ refers to the characteristics of the universe population.	parameters
156	MINE ECONOMICS 156: Drilling - prospecting/exploring alluvial or other soft deposits, produces cuttings or sludge as samples which are panned to obtained a concentrate sample.	drive-pipe
157	MINE ECONOMICS 157: Drilling - for moderately hard and relatively shallow deposits produces samples composed of sludge and cuttings.	churn
158	MINE ECONOMICS 158: For sample taken from an orebody with known thickness and surface area. The sample will represent the entire volume of the orebody.	volume of influence
159	MINE ECONOMICS 159: Determining the average assay value from reported values with or without considering sample parameters such as location, thickness, volume, etc.	from raw data
160	MINE ECONOMICS 160: Refers to the extent by which the values are dispersed or spread out or vary from the main.	variation

1	GEOLOGY 001: The deformation caused by stress.	strain
2	GEOLOGY 002: A change in volume.	dilation
3	GEOLOGY 003: A change in form.	distortion
4	GEOLOGY 004: A deformation that is, if the stress is withdrawn, the body returns to its original length, shape and size.	elastic
5	GEOLOGY 005: A law stating that strain is directly proportional to stress.	hooke's law
6	GEOLOGY 006: A slow deformation under small stresses acting over a long period of time.	creep
7	GEOLOGY 007: An angle measured in a vertical plane perpendicular to the strike of the bedding plane.	dip
8	GEOLOGY 008: The sides of a fold are called _____.	limbs
9	GEOLOGY 009: The line occupying the lowest part of a fold.	trough
10	GEOLOGY 010: A fold that is concave upwards.	syncline
11	GEOLOGY 011: A fold in which the two limbs dip at equal angles in the same direction.	isoclinal fold
12	GEOLOGY 012: An anticlinal uplift that has no distinct trend.	dome
13	GEOLOGY 013: A divisional plane or surfaces that divide rocks, and along which there has been no visible movement parallel to the plane or surface.	joint
14	GEOLOGY 014: Ruptures along which the opposite walls have moved past each other.	faults
15	GEOLOGY 015: The complement of a dip; that is equal to 90 degrees less than the angle of true dip.	hade
16	GEOLOGY 016: Movement along faults that has no rotation of the block related to each other.	translational movement
17	GEOLOGY 017: The total displacement upon the movement of a fault; it is the distance measured on the fault surface between two formerly adjacent points situated on opposite wall of the fault.	net slip
18	GEOLOGY 018: The vertical component of dip separation.	throw
19	GEOLOGY 019: The horizontal component of the dip separation.	heave
20		en echelon faults
21	GEOLOGY 021: Set of faults that has essentially the same dip and strike.	parallel faults
22	GEOLOGY 022: A fault along which the hanging wall has moved up relative to foot wall	thrust fault
23	GEOLOGY 023: A fault along which the displacement has been essentially parallel to the strike of the fault.	strike-slip fault
24	GEOLOGY 024: Left-handed strike slip fault is also called _____.	sinistral fault
25	GEOLOGY 025: Right-handed strike slip fault is also called _____.	dextral fault
26	GEOLOGY 026: Rough surfaces due to the relative movement along a fault plane that indicates the direction in which glacial ice is moving.	roches moutonees
27	GEOLOGY 027: Polished and striated surfaces that result from friction along the fault plane.	slickensides
28	GEOLOGY 028: Some of the rock along the fault may pulverize into a fine grain called.	gouge
29	GEOLOGY 029: It consists of angular to subangular fragments of various sizes, characteristically associated with a more finely crushed matrix.	breccia
30	GEOLOGY 030: A micro breccia that maintained its coherence during deformation.	mylonite
31	GEOLOGY 031: A relatively steep, straight slope at any height.	scarp
32	GEOLOGY 032: It consists of several thrust faults dipping in the same direction.	imbricate structure
33	GEOLOGY 033: The region in front of an overthrust is called _____.	foreland
34	GEOLOGY 034: A large body of rock that has moved forward more than one mile from its original position, either by overthrusting or by recumbent folding.	nappe
35	GEOLOGY 035: _____is a map that places rocks in their presumed positions prior to folding and thrusting.	palinspastic map
36	GEOLOGY 036: A block generally long compared to its width, that has been lowered relative to the blocks on either side.	graben

37	GEOLOGY 037: A structure made by mafic lavas because they consolidated under water.	pillow structure
38	GEOLOGY 038: A lava that has a smooth, billowy surface.	pahoehoe lava
39	GEOLOGY 039: A lava which consists of irregular blocks that are covered by irregular blocks.	Aa lava
40	GEOLOGY 040: A very coarse-grained rock, in which the minerals are 3 cm or more in diameter due to the presence of volatiles during crystallization.	pegmatite
41	GEOLOGY 041: An inclusion that has obviously been derived from some older formation genetically unrelated to the igneous rock itself.	xenolith
42	GEOLOGY 042: A rock containing phenocrysts.	porphyry
43	GEOLOGY 043: A body is said to be _____ if the contacts are parallel to the bedding or schistosity of the older rocks.	concordant
44	GEOLOGY 044: Tabular plutons that are parallel to the bedding or schistosity of the adjacent rocks.	sills
45	GEOLOGY 045: The color of the powdered mineral is called _____.	streak
46	GEOLOGY 046: The volcanic equivalent of granite.	rhyolite
47	GEOLOGY 047: The splitting away of scale-like layers of rock from an exposed or soil-covered surface.	exfoliation
48	GEOLOGY 048: Fumaroles play an important role in the formation of _____ minerals.	pneumatolytic
49	GEOLOGY 049: Igneous rocks formed by slow crystallization beneath the surface of the earth are collective called.	plutonic rocks
50	GEOLOGY 050: The geochemical process involved in laterite formation is generally initiated by the removal of _____.	silica
51	GEOLOGY 051: Which of the following minerals may form from the precipitation of saline waters: (fluorite, gypsum, garnierite, talc).	gypsum
52	GEOLOGY 052: The host rock of diamond is a pipelike intrusion of _____.	kimberlite
53	GEOLOGY 053: The world's largest refractory chromite mine in Coto, Zambales is better described as _____.	podiform
54	GEOLOGY 054: The permeability of rocks with smaller pores is (lower, higher, the same, no relation).	lower
55	GEOLOGY 055: Cobalt is now being mined and recovered locally from _____ deposits.	laterite
56	GEOLOGY 056: Rutile, sphene, and ilmenite are the principal minerals for which metal.	titanium
57	GEOLOGY 057: One of the unique minerals found in the Philippines which earned the official name of Luzonite has the same chemical composition as _____.	enargite
58	GEOLOGY 058: The formation of manganese nodules in the ocean floor involves growth essentially by _____ process.(physical, chemical, organic, nuclear).	organic
59	GEOLOGY 059: The exploration aid which involves measurement of the electrical conductivity of the sulphide minerals is called _____.	induced potential
60	GEOLOGY 060: Gossans are weathering derivatives of _____.	sulphides
61	GEOLOGY 061: Reefs are sometimes reservoirs of oil because of their (a) composition (b) organic derivation (c) vuggy, porous cavernous structure (d) carbonaceous.	organic derivation
62	GEOLOGY 062: Relatively short faults that overlap each other.	en echelon fault
63	GEOLOGY 063: It is considered as long angle fault.(below 90 degrees/below 45 degrees/below 35 degrees/45 degrees)	below 45 degrees
64	GEOLOGY 064: Fault along which the hanging wall moves down relative to the footwall.	normal fault
65		thrust fault
66	GEOLOGY 066: Circular or arcuate faults that bound a circular area or a part of circular area.	peripheral faults
67	GEOLOGY 067: Fault wherein net slip is parallel to the strike of the fault.	strike-slip fault

68	GEOLOGY 068: Angle between the fault plane and vertical plane that strikes parallel to the fault.	hade
69	GEOLOGY 069: Intersection of the fault with the surface of the earth.	fault line
70	GEOLOGY 070: The fault which one block moves to the right relative to the opposite block	dextral fault
71	GEOLOGY 071: The fault which one block moves to the left relative to the opposite block.	sinistral fault
72	GEOLOGY 072: A surface of erosion or non deposition that separates younger strata from older rocks.	unconformity
73	GEOLOGY 073: It refers to the oceanic crust with a thickness of 5-15 km.	simatic crust
74	GEOLOGY 074: A continental crust with a thickness of 30-80 km.	sialatic crust
75		mylonite
76	GEOLOGY 076: Branch of geology that deals with the form, arrangement and structure of the rock and especially with the description, representation and analysis of structure chiefly on and moderate to small scale.	structural geology
77	GEOLOGY 077: It is directly above the focus.	hypocenter
78	GEOLOGY 078: The true source an earthquake.	focus
79	GEOLOGY 079: It is the series of mafic to ultramafic rocks.	ophiolite
80	GEOLOGY 080: Introduction of water into a mineral.	hydrology
81	GEOLOGY 081: The amount of energy released by an earthquake.	magnitude
82	GEOLOGY 082: The basic unit of a geologic map is the (contact/lithology/bedding/formation).	formation
83	GEOLOGY 083: It is the process whereby a one uniform magma may yield rocks of varying composition.	differentiation

1	MINE PLANNING 001: The volume of production at which total revenue equals the total cost.	break-even volume
2	MINE PLANNING 002: The freeing or detaching of large masses of rock from its parent deposit.	rock breakage
3	MINE PLANNING 003: The activity, occupation, and industry concerned with the extraction of minerals.	mining
4	MINE PLANNING 004: The sequence of unit operations used to accomplish mine development or exploitation.	cycle of operation
5	MINE PLANNING 005: Employed to accomplish rock penetration particularly in percussive drilling.	dynamic loading
6	MINE PLANNING 006: The process of forming a direct hole or kerf on a rock surface usually mechanically but sometimes hydraulically or thermally.	rock penetration
7	MINE PLANNING 007: The second level in engineering evaluation in which the various operational concepts are quantified and compared resulting in designs and costs.	engineering study
8	MINE PLANNING 008: Method used for ore reserve estimation that involves the application of mathematics of random functions to the reconnaissance of mineral deposits.	geostatistics
9	MINE PLANNING 009: Employed in non-coring exploration in shallow holes in soft to medium-hard ground, either rock or soil.	rotary drilling
10	MINE PLANNING 010: They resemble open pits but the benches are lower and nearly vertical.	quarries
11	MINE PLANNING 011: All operations involved in excavating or moving bulk minerals during mining.	materials handling
12	MINE PLANNING 012: The concept of replacing the intermitted operations of rock breakage and material handling in mining with a system of continuous extraction.	rapid excavation
13	EM BOARD EXAMINATION QUESTIONS 001: An intrinsic method of forecasting by studying time series statistical data.	time series analysis
14	EM BOARD EXAMINATION QUESTIONS 002: It is the list of prices and of the corresponding quantities that consumers are willing and able to buy at each price per unit time.	demand
15	EM BOARD EXAMINATION QUESTIONS 003: It is the list of price and the quantities that a supplier or group of suppliers, and would be willing and able to offer for sale at each in the list per period of time.	supply
16	EM BOARD EXAMINATION QUESTIONS 004: Method or tools of forecasting that is an artificial series used to described the overall behavior of a time series when the trend cannot be ascertained whether linear, non-linear of part of a cycle or a mathematical equation is not required.	moving average
17	EM BOARD EXAMINATION QUESTIONS 005: Represent the smooth or regular underlying or the general long run behavior or movement of a series over a fairly long period of time. It depicts the gradual growth or decay or a combination of both of a particular time series observed over a long period of time.	trend
18	EM BOARD EXAMINATION QUESTIONS 006: Refers to the fluctuations which repeat themselves at a more or less regular interval; a periodic movement which has a period of one year; movements in a time series which recur year after year in the same month of the year with a more or less the same intensity.	cyclical variation
19	EM BOARD EXAMINATION QUESTIONS 007: Refers to the unexplained variation no covered by any of the other components and generally considered as accidental or random in nature. They are totally unpredictable.	irregular fluctuation
20	MINE SAFETY 001: A qualified mine safety engineer in a certain mining company should be (a) licensed metallurgical engineer with two years experience in safety works; (b) licensed mining engineer with one year experience in mining operation; (c) licensed geologist; (d) safety inspector.	licensed mining engineer with one year experience in mining operation
21	MINE SAFETY 002: The class "A" mine underground has at least ___ workers.	150

22	MINE SAFETY 003: The ideal number of members of a miner rescue team should be __.	5
23	MINE SAFETY 004: Which class of mine has the most number of workers?	class A
24	MINE SAFETY 005: The required number of safety engineers in a class A mine.	one full-time
25	MINE SAFETY 006: The deputized safety inspector should have (a) five years experience in safety work; (b) at least ten years in service in the company; (c) three years in underground safety; (d) one year in safety work.	at least ten years in service in the company
26	MINE SAFETY 007: The age requirement for an underground mine worker is __	18
27	MINE SAFETY 008: The total fatal and non-fatal lost-time accidents per million man-hours worked.	accident frequency rate
28	MINE SAFETY 009: The days lost per million man-hours worked.	accident severity rate
29	MINE SAFETY 010: _____ shall mean those that will prevent the injured from reporting to work on the working day following the day of injury and thereafter.	lost-time accident
30	MINE SAFETY 011: An underground-surface mine which employs a total of not more than 50 to 75 employees, respectively, is classified as ____.	class C
31	MINE SAFETY 012: A class A mine shall have at least (a) 1 part time safety inspector and a deputy inspector; (b) 1 part time safety engineer and 1 full time safety inspector; (c) 1 full time safety engineer and full time safety inspector; (d) 1 full time safety engineer.	1 full time safety engineer and full time safety inspector
32	MINE SAFETY 013: A class B mine shall have at least (a) 1 part time safety inspector and a deputy inspector; (b) 1 part time safety engineer and 1 full time safety inspector; (c) 1 full time safety engineer and full time safety inspector; (d) 1 full time safety engineer.	1 full time safety engineer and full time safety inspector
33	MINE SAFETY 014: A class C mine shall have at least (a) 1 part time safety inspector and a deputy inspector; (b) 1 part time safety engineer and 1 full time safety inspector; (c) 1 full time safety engineer and full time safety inspector; (d) 1 full time safety engineer.	1 part time safety engineer and full time safety inspector
34	MINE SAFETY 015: An employee may be designated as a Deputy Safety Inspector by his employer if the employee has an experience in safety work or mining operations for at least ___ years.	10
35	MINE SAFETY 016: Any mine working that will be driven under rivers, seas, or any accumulation of standing or running water on massive, unbroken, or unfractured igneous rock shall have a thickness of ____ from the true river bed to the roof of the mine working.	25 meters
36	MINE SAFETY 017: Any mine working that will be driven under rivers, seas, or any accumulation of standing or running water on broken, or fractured igneous rock shall have a thickness of ___ from the true river bed to the roof of the mine working.	50 meters
37	MINE SAFETY 018: It is the Revised Mines Safety Rules and Regulations which was re-titled "MINE SAFETY AND HEALTH STANDARDS" approved as Department Administrative Order by the DENR Secretary on December 200.	DENR Administrative Order 2000-98
38	MINE SAFETY 019: The most common cause of fatal accident in underground mines.(rock fall/mechanical fault/cave-in/mine fire)	rock fall
39	MINE SAFETY 020: Excavations over ___ meters in depth shall be supplied with at least one ladder for every three (3) meters or a fraction thereof.	2
40	MINE SAFETY 021: In road works, adequate warning signs shall be provided at approaches of at least ___ meters from the working areas.	50
41	MINE SAFETY 022: Excavations with depth of ___ meters or more shall be properly shored and braced , otherwise these shall be retained to prevent cave-ins	1.5
42	MINE SAFETY 023: Fixed ladder shall be installed at an angle not greater than ___ degrees from the horizontal	70
43	MINE SAFETY 024: Fixed ladder shall be constructed with rungs placed at equal intervals of ___ centimeters	35

44	MINE SAFETY 025: In order to prevent coal dust explosion, coal dust concentration in the air space shall not be more than ___ grams per cubic meters of air	40
45	MINE SAFETY 026: In handling coal deliveries, oxygen concentrations in the air space shall not be more than ___ percent free oxygen by volume	12
46	MINE SAFETY 027: Coal stockpile shall be built on open, clean, well drained ground, far from sources of heat and kept ___ meters within acceptable height of a pile	3
47	MINE SAFETY 028: When there is need to use hand held radio, cellular telephone and other similar communication devices, the driver shall (a) stop the vehicle; (b) continue driving the vehicle; (c) slow down; (d) increase the speed of the vehicle.	stop the vehicle
48	MINE SAFETY 029: Every mining company shall have a properly trained central fire fighting brigades and fire drill shall be conducted at least once in ___ months.	3
49	MINE SAFETY 030: For fire protection, all existing provisions of the Fire Code of the Philippines shall be followed. The said code as otherwise known as ___	P.D. 1185
50	MINE SAFETY 031: If a misfire occurs, the operator shall continue to hold the tool in the firing position for not less than ___ seconds and shall, until the cartridge has been ejected, keep the tool pointed in a direction which will not cause injury should an explosion take place	15
51	MINE SAFETY 032: Standard railing guards shall be at least ___ meter/s in height	1
52	MINE SAFETY 033: Standard railing guard shall have posts not more than ___ meters apart and an intermediate rail halfway between top rail and the floor.	2
53	MINE SAFETY 034: The ASME and ___ Codes shall govern the inspection and installation of internal combustion engines	Philippine Mechanical Engineering
54	MINE SAFETY 035: High voltage cables shall not be installed in any mine without the approval of the concerned.	MGB Regional Office
55	MINE SAFETY 036: Cross bonds shall be used at intervals not exceeding ___ meters of rail.	60
56	MINE SAFETY 037: On secondary tracks. at least one rail shall be bonded or welded and cross bond installed at least every ___ meters.	60
57	MINE SAFETY 038: Trolley and bare feed wires shall be suspended at least ___ meters above the rail and shall be kept reasonable tight at all times.	2
58	MINE SAFETY 039: In tunnels and manholes, no work shall be done on any energized electrical conductor operating at one hundred fifty (150) volts to ground unless ___ or more employees are present.	2
59	MINE SAFETY 040: Substations within ___ meters from any mine opening shall be in vault or fire resistant rooms.	35
60	MINE SAFETY 041: Surface transformers shall be installed at least ___ meters above the ground or enclosed in a vault, or by substantial fence at least 1.5 meters in height	2
61	MINE SAFETY 042: All safety engineer/safety inspector permits shall be subject to renewal every ___ years by the Regional Office concerned	3
62	MINE SAFETY 043: Cross bonds shall be used at intervals not exceeding ___ meters of rail.	60
63	MINE SAFETY 044: On secondary tracks, at least one rail shall be bonded or welded and cross bond installed at least every ___ meters.	60
64	MINE SAFETY 045: Trolley and bare feed wires shall be suspended at least ___ meters above the rail and shall be kept reasonably tight at all times.	2
65	MINE SAFETY 046: In tunnels and manholes, no work shall be done on any energized electrical conductor operating at one hundred fifty (150) volts to ground unless ___ or more experienced employees are present.	2
66	MINE SAFETY 047: Substations within ___ meters from any mine opening shall be in value or fire resistant rooms.	35

67	MINE SAFETY 048: Surface transformers shall be installed at least ___ meters above the ground or enclosed in a vault, or by substantial fence at least 1.5 meters in height.	2
68	MINE SAFETY 049: All surface engineer/safety inspector permits shall be subject to renewal every ___ years by the Regional Office concerned.	3
69	MINE SAFETY 050: Main haulage levels with inadequate clearance shall be provided with shelter holes placed not more than ___ meters apart along the walkway side.	30
70	MINE SAFETY 051: It shall be prohibited for motormen or locomotive operators to take signals from or allow cars to be coupled or uncoupled by, or rail switched by anyone except the (mechanic/capataz/shiftboss/brakeman).	brakeman
71	MINE SAFETY 052: When using a light to signal a locomotive train to stop, (a) wave light horizontally; (b) wave light vertically; (c) wave light in a circular motion; (d) give a flashing sign.	wave light horizontally
72	MINE SAFETY 053: When using a light to signal a locomotive train to move toward the source of signal, (a) wave light horizontally; (b) wave light vertically; (c) wave light in a circular motion; (d) give a flashing sign.	wave light in a circular motion
73	MINE SAFETY 054: When using a light to signal a locomotive train to move away from the source of signal, (a) wave light horizontally; (b) wave light vertically; (c) wave light in a circular motion; (d) give a flashing sign.	wave light vertically
74	MINE SAFETY 055: When using a whistle to stop a locomotive train in motion, (a) 1 blow of a whistle; (b) 2 blows of a whistle; (c) 3 blows of a whistle; (d) 47 blows of a whistle.	1 blow of a whistle
75	MINE SAFETY 056: Any equipment, which produces, modifies, regulates, controls or safeguards the supply of electric energy. (transformer/appliance/electrical supply equipment/electric motor)	electrical supply equipment
76	MINE SAFETY 057: A condition or practice that could reasonably be expected to cause death or serious physical injury or damage to property prior to the adoption of appropriate measures to counter the risk.	imminent danger
77	MINE SAFETY 058: Every employer shall ensure that a Central Safety and Health Committee is established within ___ from the start of the operation.	1 month
78	MINE SAFETY 059: The Chairman of the Central Safety and Health Committee shall be the (Safety Engineer/Safety Inspector/Highest Official in the Minesite/Company Physician).	Highest Official of the Minesite
79	MINE SAFETY 060: New employees having no underground mining experience shall receive no less than ___ hours of training if they are to work underground.	24
80	MINE SAFETY 061: All employees shall receive to less than 8 hours of refreshing training no less frequency than once every ___ months.	12
81	MINE SAFETY 062: All underground mines shall have at least ___ interconnected properly maintained openings to the surface.	2
82	MINE SAFETY 063: The manager shall never allow the storage of flammable liquids or materials within ___ meter radius of any main entrance to the underground mine.	50
83	MINE SAFETY 064: Trolley wires shall be installed not less than ___ meters above the rails and all hangers shall be adequately insulated.	2
84	MINE SAFETY 065: Any building or structure other than explosive manufacturing building used for the storage of explosives and blasting accessories. (silo/bin/magazine/warehouse)	magazine
85	MINE SAFETY 066: The person responsible for the overall direction, control and supervision of the entire mining operation	manager

86	MINE SAFETY 067: A penalty of PHP 10,000 is imposed to a mining company for failure to (a) install corrective measures to mitigate unsafe condition as defined in the annual safety and health program; (b) report fatal and serious accidents to concerned RO within 15 days after the date of the accident; (c) give notice to the concerned RD within 24 hours of any fatal and non-fatal serious injuries; (d) submit monthly accident reports or Safety and Health Program.	Report fatal and serious accidents to concerned RO within 15 days after the date of the accident
87	MINE SAFETY 068: The ____ may summarily suspend, whole or partially, any activity related to mining operations, in case of imminent danger to life or property, until the danger is removed, or until appropriate measures are taken by the employer.(Director/Secretary/President/Assistant Secretary)	Director
88	OTHER QUESTIONS 001: Broken, caved-in, mined out portion of the deposits.	gob
89	OTHER QUESTIONS 002: The portion of the deposit underlying an excavation and left as a pillar.	sill pillar
90	OTHER QUESTIONS 003: Toward the working face, away from the mine entrance.	inby
91	OTHER QUESTIONS 004: Away from the working face, toward the entrance.	outby
92	OTHER QUESTIONS 005: A funnel-shaped excavation formed at the top of a raise to move bulk material by gravity from a stop to a drawpoint.	bell
93	OTHER QUESTIONS 006: Secondary horizontal or near horizontal opening usually driven in multiples.	entry
94	OTHER QUESTIONS 007: Opening or connection to the surface from an underground excavation.	adit
95	OTHER QUESTIONS 008: Narrow vertical or inclined opening excavated in a deposit at the end of stope to provide a face.	slot
96	OTHER QUESTIONS 009: Vertical or near vertical opening through which bulk material flows by gravity.	orepass
97	OTHER QUESTIONS 010: Horizontal opening used primarily for materials handling.	haulage way
98	OTHER QUESTIONS 011: Advancing in a near-horizontal direction; also the working face of an opening.	breast
99	ORE DRESSING METALLURGY 001: Fire assaying is considered (volumetric/gasometric/gravimetric/wet method).	gravimetric
100	ORE DRESSING METALLURGY 002: It is used to separate Au from Ag	nitric acid
101	ORE DRESSING METALLURGY 003: Used in commercial recovery of Au and Ag from their ore.	sodium cyanide
102	ORE DRESSING METALLURGY 004: A jaw crusher is a ____ crusher.	primary
103	ORE DRESSING METALLURGY 005: The most common method of concentrating chromite ores.	jigging
104	ORE DRESSING METALLURGY 006: The process of separating the ore minerals from the gangue minerals.	ore dressing
105	ORE DRESSING METALLURGY 007: An active, readily fusible, acid flux with a chemical formula Na2B4O7.10H2O.	borax
106	ORE DRESSING METALLURGY 008: It contains precious metals like Au and Ag, also contains 35-36% copper.	matte
107	ORE DRESSING METALLURGY 009: The process of heating to an elevated temperature without fusion a metal or metallic compounds in contact with oxygen, water vapors, etc.	roasting
108	ORE DRESSING METALLURGY 010: The process of electrochemically dissolving copper from impure anodes and selectively plating the dissolved copper in pure form.	electrorefining
109	ORE DRESSING METALLURGY 011: It contains 40-50 kg/m3 of Cu, 180-200 kg/m3 of H2SO4, brightening and smoothing agents.	electrolyte
110	001: Mining activity which relies heavily on manual labor using simple implements and methods and do not use explosives or heavy mining equipment.	small-scale mining

111	002: Rules and Regulations Governing the Granting of Processor's Permit Related to Small-Scale Gold Mining.	DENR Administrative Order No. 05, Series of 1989
112	003: Generally pertains to loose gravel, soil or mud which has been deposited by water	alluvial
113	004: An alloy of mercury with another metal or metals.	amalgam
114	005: An act creating a People's Small-Scale Mining Program and for their purposes.	P.D. 1899
115	006: Refer to Filipino citizens who, individually or in the company of other Filipino citizens, voluntarily for a cooperative duly licensed by the Department of Environment and Natural Resources to engage, under the terms and conditions of a contract, in the extraction or removal of minerals or ore-bearing materials from the ground.	small-scale miners
116	007: Holder of an existing mining right.	claimowner
117	008: The removal of overburden from a placer deposit, coal bed or ore deposit.	stripping
118	009: Guidelines in the issuance of Special Permits for pebble picking along beaches.	DAO No. 28, Series of 1992
119	010: Locality where eat least (50) miners (i.e. transient and local mines) are extracting more than 5 tons gold ore per day.	gold rush area
120	011: A natural material having plastic properties.	clay
121	012: The Local Government can issue a small-scale mining permit with an area of ____.	5 has and below
122	013: The Mines and Geosciences Bureau issues small-scale mining permit with an area of ____.	not exceeding 20 has
123	014: Scattered, dispersed interconnected veins or veinlets.	disseminated deposits
124	015: Refers to the physical factors of the total surroundings of human beings, including the land, water, atmosphere, climate, sound, odors, tastes, the biological factors of animals and plants and the social factors of aesthetics.	environment
125	016: The breakdown and transportation of earth materials at the surface.	erosion
126	017: A metasomatic process whereby sedimentary rocks are transformed to granitic rocks	granitization
127	018: The pressure difference resulting from differences in elevation between the intake and discharge points for a liquid.	head
128	019: Titled owner of the land.	landowner
129	020: Downslope movement of surface materials.	landslide
130	021: Unusually thick veins or group of veins.	lode
131	022: Means materials whether solid, liquid or both segregated from the ores during concentration/milling operations which have no present economic value to the generator of the same.	mill tailings
132	023: The process of recovering gold and silver mercury.	amalgamation
133	024: An excavation made in the earth to extract minerals	mine
134	025: An ore that yields a large margin of profit per ton	high grade ore
135	026: A naturally occurring substance, usually inorganic. having a definite chemical composition and distinctive physical characteristics.	mineral
136	027: Establishing Small-scale Mining as a New Dimension in Mineral Development.	PD 1899
137	028: Geologic occurrence of minerals in relatively concentrated form.	mineral deposit
138	029: Mechanical concentration of heavy minerals.	placer deposit
139	030: Process used to repair the impacts of mining on the environment.	no answer
140	031: Means soil and/or rock materials from surface or underground mining operations with no present economic value to the generator of the same.	mine waste
141	032: The activity, occupation and industry concerned with the extraction of minerals	mining

142	033: Mineral that have sufficient utility and value to be extracted at a profit	ore
143	034: Economic occurrence of minerals that can be extracted at a profit.	ore deposit
144	035: The valueless dirt and material overlying the pay zone in a placer deposit or the valueless solid outcrop of an orebody.	overburden
145	036: Locality where less than 50 miners (i.e. transient and local miners) are extracting gold ore.	gold rush area
146	037: Grooves, channels, slats or wire screens in a sluice box or rocker to catch gold and other valuable minerals.	riffle
147	038: A consolidated aggregate of one or more minerals	rock
148	039: Washing gravel through a sluice box.	sluicing
149	040: Refers to co-production, joint venture or mineral production sharing agreement between the State and a small-scale mining contractor for the small-scale utilization of a plot of mineral land	small-scale mining contract
150	041: Criss-crossing veins or veinlets	stockworks
151	042: A secondary mineral deposit in fracture.	vein
152	043: Rules and Regulations governing the Granting of Small-scale Mining Permits under P.D. 1899.	Mines Administrative Order No. MRD-41, Series of 1984
153	044: The alteration of rock by such near-surface processes as the chemical action of air, water, plants and bacteria, and the mechanical action of temperature change.	weathering
154	045: Rules and Regulations to Implement R.A. 7076 otherwise known as "People's Small-scale Mining Act of 1991".	DAO No. 34, Series of 1991
155	046: Amendment to Mines Administrative Order No. MRD-41, Rules and Regulations Governing the granting of Small-scale Mining Permits under P.D. 1899.	Mines Administrative Order No. MRD 41-A, Series of 1984
156	047: Implementing Guidelines for Small-Scale Mining Operations.	Memorandum Circular No. MRD-2, Series of 1985
157	048: It is a crude method of alluvial hold ore mining wherein miners descend in a deep, narrow and inundated sinkhole. They breathe through an ordinary plastic hose that is connected to an air compressor machine. The gold ores are extracted with the use of picks and are placed inside small sacks that will be then transported to the surface	compressor mining
158	049: Additional Rules and Regulations Governing Small-Scale Mining Operations	Mines Administrative Order No. MRD-50, Series of 1987
159	050: Rules and Regulations Governing the Granting of Small-scale Mining Permits Covering Areas of Mineral Reservations.	MRDB Administrative Order No. 3, Series of 1984
160	051: It involves the washing of river gravel to retrieve the gold associated with it. However, sufficient water supply is essential to successfully achieve the task of recovering the gold.	placer mining
161	052: Amendment to MRDM Administrative Order No. 3.	MRDB Administrative Order No. 3-A, Series of 1987
162	053: Small-Scale Mine Safety Rules and Regulations.	AO 97-30
163	054: Two process employed by small-scale processors to retrieve gold from the ore.	CIP & CIL
164	055: The typical small-scale miners employ small and confined excavations underground called ____.	dog holes
165	056: Mining method that employs dog holes wherein miners utilize highgrading of gold ore and place lower grad ore as waste.	camote mining

166	057: A method where high-pressure stream of water is directed against a placer bank to undercut and cave it by means of a device called the hydraulic monitor.	hydraulic mining
167	058: Device made in sections called box wherein riffles are fitted to them.	sluice box
168	059: This is a circular sheet iron or wooden dish with sloping sides 10 to 16 inches in diameter, 2 to 2 3/8 inches in depth, with the side sloping at 35 to 45 degrees. It weighs 1 1/2 to 2 pounds.	gold pan
169	060: What is small-scale mining? (a) any mining operation in which the work is artisanal, either open cast or shallow underground mining, without the use of sophisticated mining equipment. (b) Mining operation in which the annual production does not exceed 100,000 MT or run-of-mine ore (ROMO) and total capital investment not exceeding PhP 20 million. (c) Mining operation that utilizes explosives and has an area exceeding 20 hectares. (d) all of the above	any mining operation in which the work is artisanal, either open cast or shallow underground mining, without the use of sophisticated mining equipment
170	061: In small-scale mining. the ratio of labor cost to equipment utilization cost to produce, process and market ___ of ore is equivalent to or exceeding one.	1 metric ton
171	062: The two major vein deposits in the Diwalwal Area are: (Cansibit & San Jose/Balite & Buenas Tinago/Heine & Ntina/LArayan & Lalab)	Balite and Buena Tinago
172	063: The term of a small-scale mining permit under RA 7076 is ___ years renewable for like periods	2
173	064: The mining method employed by major companies in Diwalwal like J.B Management & Mining Corporation and Helica Mining Corporation.	sublevel stoping
174	065: A device used to prevent escape of mercury into the atmosphere.	retort
175	066: Any of several hard, inert materials such as sand, gravel, slag, or crushed stone, used for mixing with a cementing or bituminous material to form concrete, mortar, plaster or used along, as in railroad ballast or graded fill.	aggregate
176	067: An act prohibiting the extraction of gravel and sand from beaches and providing penalties therefor. Refers to perfected and subsisting claim, lease, license or permit covering a mineralized area prior to its declaration as a people's small-scale mining area.	existing mining right
177	068: National Minerals Policy	EO 270
178	VENTILATION 001: How many times of power required in order to develop twice the volume?	8 times the power
179	VENTILATION 002: The fan law states that in order to develop twice the volume, how many times the speed is required?	2 times velocity
180	VENTILATION 003: According to the fan law, twice the volume develops how many times the pressure?	4 times the pressure
181	VENTILATION 004: It is a type of ventilation which is efficient and generally dependable.	mechanical ventilation
182	VENTILATION 005: The type of ventilation that utilizes the application of fans, vents, tubings and baggings.	mechanical ventilation
183	VENTILATION 006: The type of ventilation in which density change in air columns causes alteration in natural draft pressure resulting in unpredictable air volume flow.	natural ventilation
184	VENTILATION 007: It results from pressure differential due to unequal densities or weights of 2 air columns.	natural ventilation
185	VENTILATION 008: It is otherwise known as "natural draft".	natural ventilation
186	VENTILATION 009: It is the underground mine gas otherwise known as the "laughing gas"	nitrogen dioxide
187	VENTILATION 010: It is the underground mine gas otherwise known as the "stinkdamp".	hydrogen sulfide
188	VENTILATION 011: It is the underground mine gas otherwise known as the "sweetdamp"	carbon monoxide

189	VENTILATION 012: It is the underground mine gas otherwise known as the "whitedamp".	carbon monoxide
190	VENTILATION 013: It is the underground mine gas otherwise known as the "marsh gas".	methane
191	VENTILATION 014: It is the underground mine gas otherwise known as the "choke" or "blackdamp".	carbon dioxide
192	VENTILATION 015: The amount of oxygen in underground mines required under the "Revised Mines Safety Rules and Regulations" is ___ by volume.	20 percent
193	VENTILATION 016: It is the "Revised Mines Safety Rules and Regulations" issued by the Department of Environment and Natural Resources.	Mines Administrative Order No. MRD-51
194	VENTILATION 017: The maximum concentration allowed for hydrogen in underground mines as per "Revised Mines Safety Rules and Regulations".	less than 4.0% by volume
195	VENTILATION 018: The threshold limit value of sulfur dioxide as per "Revised Mines Safety Rules and Regulations".	0.001% by volume
196	VENTILATION 019: The threshold limit value of oxides of nitrogen as per "Revised Mines Safety Rules and Regulations".	0.0005% by volume
197	VENTILATION 020: The threshold limit value of hydrogen sulfide as per "Revised Mines Safety Rules and Regulations".	0.10% by volume
198	VENTILATION 021: The threshold limit value of carbon monoxide as per "Revised Mines Safety Rules and Regulations".	0.01% by volume
199	VENTILATION 022: The threshold limit value of carbon dioxide as per "Revised Mines Safety Rules and Regulations".	0.50% by volume
200	VENTILATION 023: Hydrogen gas is explosive with this range of concentration. (1-71 / 7-77 / 10-80 / 4-74)% by volume	4%-74% by volume
201	VENTILATION 024: Methane is explosive within this range of concentration.	5%-15% by volume
202	VENTILATION 025: This does not cause mine explosion hazard. (coal dust/lead dust/sulfide dust/mercury dust)	mercury dust
203	VENTILATION 026: It is the amount of oxygen consumption of man at vigorous activity.	180 cubic inches per minute
204	VENTILATION 027: Specific gravity of oxygen.	1.1054
205	VENTILATION 028: The oxidation and combustion of organic compounds otherwise called coke produce it.	carbon dioxide
206	VENTILATION 029: A gas brownish or reddish in color, bitter taste, specific gravity is 2.263, also known as laughing gas.	oxide of nitrogen
207	VENTILATION 030: The arrangement by which the intake or fresh air current is made to cross the return or used air current.	air crossing
208	VENTILATION 031: A strong brick wall built at suitable places to seal galleries or other underground excavations to enable the air current to flow into working places with minimum loss of pressure and prevent from flowing to unwanted places.	stopping
209	VENTILATION 032: It consists of double doors, which are placed in the roadways so that when one door is opened, the other is closed.	air lock
210	VENTILATION 033: A part of centrifugal fan, which provides the factor for efficient static head build-up.	scroll casing
211	VENTILATION 034: A fan that produces pressure by imparting a tangential acceleration to air as it proceeds through the fan impeller	axial flow fan
212	VENTILATION 035: It shows the amount of power consumed at different output rates; it is also used in the determination of the amount of power needed to pass a particular volume of air.	brake power curve
213	VENTILATION 036: Two times the original volume of air means __ times the power of the fan.	8
214	VENTILATION 037: A law of ventilation stating the pressure required changes as the square of velocity.(no answer)	no answer

215	VENTILATION 038: The point of maximum explosion violence occurs at ___ % methane by volume, since at this point there is just enough oxygen for complete combustion of the methane.	9.5
216	VENTILATION 039: In hydrogen sulfide gas, a simple test may be made with lead acetate paper that turns into a shiny ____ through the formation of lead sulfide if the gas is present.(brown/blue/pink/red)	brown
217	VENTILATION 040: The term for the temperature of the air at saturation.	dew point
218	VENTILATION 041: The ratio of water vapor present in a given volume of air to the water vapor present in a given volume of air to the water vapor that would be present if the air is saturated at the same temperature.	relative humidity
219	VENTILATION 042: The rate of increase of rock temperature with increasing depth, which affects air temperature, is called _____.	geothermal gradient
220	VENTILATION 043: A term applied to a fan that handles the entire flow in an airway and this serves to increase the quantity of air in circulation.	booster fan
221	VENTILATION 044: The velocity at which the flow turned from streamline to turbulent condition is called _____.	critical velocity
222	VENTILATION 045: Produces pressure by imparting a tangential acceleration to air as it proceeds through the fan impeller	axial flow fan
223	VENTILATION 046: It is also called back 'pressure results' from the inside of the bent tube or drift not being perfectly smooth, the air cannot move along the tube or drift as fast as the fun would like to blow more air into the airway thus producing friction.	static head
224	VENTILATION 047: It is a vertical or horizontal opening to the surface where air enters and circulate inside the mine with the aid of different fans.	intake
225	VENTILATION 048: A type of anemometer suitable for measuring very high velocities than special anemometers.	pilot tube apparatus
226	VENTILATION 049: An underground mine gas also called Stink Damp. It comes from the decomposition of sulfide compounds.	hydrogen sulfide
227	VENTILATION 050: The practice of removing gas contained in a coal seam and adjoining strata through wellbores, drillholes, and pipelines.	methane drainage
228	VENTILATION 051: The mixture of gases which remains in a mine after a mine fire or an explosion of fire damp or coal dust.	after damp
229	VENTILATION 052: A term applied to carbon monoxide, or atmosphere containing lethal quantities of carbon monoxide.	white damp
230	VENTILATION 053: A qualified mine safety engineer in a certain mining company should be (a) a safety inspector; (b) a licensed geologist; (c) a licensed metallurgical engineer; (d) a licensed mining engineer with one year experience in mining operation.	a licensed mining engineer with one year experience in mining operation
231	VENTILATION 054: Class "A" underground mine has at least ____ workers.	150
232	VENTILATION 055: Which mine has the most number of workers?	Class A
233	VENTILATION 056: The ideal number of members of a miner rescue team.	5
234	VENTILATION 057: The required number of safety engineers in a Class A mine	one full-time
235	VENTILATION 058: The deputized safety inspector should have (a) one year experience in safety works; (b) three years experience underground; (c) five years experience in safety works; (d) at least ten years of service in the company.	at least ten years of service in the company
236	VENTILATION 059: Persons to work in an underground mine should be at an age not lower than __.	18
237	VENTILATION 060: A Class A surface mine should have at least ___ workers.	250
238	VENTILATION 061: A Class B. mine requires (a) at least one part-time safety engineer; (b) one full-time safety engineer; (c) one part-time and one full-time safety engineers; (d) one full-time and one part-time safety engineers.	at least one part-time safety engineer
239	VENTILATION 062: The temporary/safety inspector should renew its temporary license every (quarter/year/two years/three years).	year

240	VENTILATION 063: It is the disease which results from excessive inhalation of silica dust	silicosis
241	VENTILATION 064: It is the disease which results from excessive inhalation of coal dust.	anthracosis
242	VENTILATION 065: It is the disease which results from excessive inhalation of asbestos	asbestosis
243	VENTILATION 066: It is the disease which results from excessive exposure to mercury.	salivation
244	VENTILATION 067: It is the disease which results from excessive exposure to tin oxide.	pneumoconiosis
245	VENTILATION 068: The threshold value of silica as per "Revised Mines Safety Rules and Regulations".(5-50 mppcf/15-50 mppcf/25-70 mppcf/35-80 mppcf)	5-50 mppcf
246	VENTILATION 069: The threshold limit value of coal dust as per "Revised Mines Safety Rules and Regulations".(20-40 mppcf/40-60 mppcf/60-80 mppcf/80-100 mppcf).	20-40 mppcf
247	VENTILATION 070: The threshold limit value of asbestos dust as per "Revised Mines Safety Rules and Regulations".(1 mppcf/5 mppcf/10 mppcf/15 mppcf)	5 mppcf
248	VENTILATION 071: The threshold limit value of lead dust as per "Revised Mines Safety Rules and Regulations".(0.1 mg/m3; 0.2 mg/m3; 0.3 mg/m3; 0.4 mg/m3).	0.2 mg/m3
249	VENTILATION 072: It is an undesired even in which the contact, the exposure of the movement of a person to objects, equipment, substances, conditions of other persons may or may not cause personal injure, damage to property or delay.	accident
250	VENTILATION 073: It is the total fatal or nonfatal lost-time accidents per million man-hours worked.	accident frequency rate
251	VENTILATION 074: It is the number of days lost per million man-hours worked.	accident severity rate
252	VENTILATION 075: The arrangement by the intake air (or fresh air) is made to cross the return or used air current in the underground workings.	air crossing
253	VENTILATION 076: It consists of double doors, which are placed on the road ways so that when on door is opened, the other is closed to avoid short circuiting of ventilation current.	air lock
254	VENTILATION 077: It consists of several overlapping trips of non-flammable brattice cloth, hung from the roof, other replaces doors on entries of bituminous coal mines, and on breast manways in anthracite practice.	curtain
255	VENTILATION 078: It is a vertical opening in an underground mine where air is injected towards the ground.	downcast
256	VENTILATION 079: It is an opening to the surface where air, different gases and dusts are withdrawn from the underground mine	exhaust
257	VENTILATION 080: It is also called as "back pressure" which results from the inside of the vent tube or drift not being perfectly smooth.	static head
258	VENTILATION 081: It is also called as "velocity pressure" which is the force exerted by moving air.	velocity head
259	VENTILATION 082: It is the value or concentration of dust or gas at which nearly all humans can be exposed without endangering health.	threshold limit value
260	VENTILATION 083: It is a vertical opening in a mine where air flows from the underground mine to the surface due to change in pressure and temperature.	upcast
261	VENTILATION 084: It is made-up of brick walls built at suitable places to seal galleries, levels or other underground excavations in order to enable the air current to flow into the working faces with minimum loss of pressure and prevent the air current from flowing into unwanted places.	stopping
262	VENTILATION 086: It is a mixture of methane and air which is explosive at 5%-15% methane.	firedamp
263	VENTILATION 087: It is a gaseous product of a mine fire or explosion which consist mainly of carbon dioxide, carbon monoxide, water vapor, nitrogen, oxygen, hydrogen, hydrocarbons and smoke.	afterdamp

264	VENTILATION 088: It is atmosphere depleted of oxygen with mixtures of 10%-15% carbon dioxide and 85%-90% nitrogen but may contain varying amounts of oxygen and methane.	blackdamp
265	VENTILATION 089: It consists of minute particles of solid and liquid matter suspended in atmosphere which consists of soot and tarry substances	smoke
266	VENTILATION 090: It is classification of fire which involves the combustion of timber, refuse and/or other organic solids	Class A Fire
267	VENTILATION 091: It is classification of fire which involves the combustion of flammable liquids	Class B Fire
268	VENTILATION 092: It is classification of fire which involves the combustion of electricity.	Class C Fire
269	VENTILATION 093: It is the intersection of the fan curve and the duct curve in a fan characteristic curve.	fan operation point
270	VENTILATION 094: The sharp dip in the fan curve which represents an operation that wastes substantial electric power and may damage the fan.	stall trough
271	VENTILATION 095: This shows the relationship between the loads imposed upon a fan and the fan's output in terms of the volume delivered per unit time	fan characteristic curve
272	VENTILATION 096: A coal mine section has a methane emission rate of 200 cubic feet per minute and a 0.2% methane concentration in the intake air. What is the required airflow if the threshold limit value of methane is 1.0%? (24,800/23,400/26,500/22,200) cubic feet per minute.	24,800 cubic feet per minute

1	MINING LAWS 001: A law creating the environmental impact statement system of the Philippines.	P.D. 1586
2	MINING LAWS 002: It is a 25-year program which provides an operational link between the environmental protection and enhancement commitments, under the implementing rules and regulations of the Philippines Mining Act, as the issued environmental compliance certificate under P.D. 1586.	EPEP
3	MINING LAWS 003: It is the policy of the State to assure the availability, sustainability and equitable distribution of the country's natural resources through technically, financially, socially, culturally and environmentally responsible manner towards the generation of the wealth creation without sacrificing the needs and demands of tomorrow's generation.	Sustainable Development
4	MINING LAWS 004: It is a yearly program submitted at the start of each year which provides an operational link between the environmental protection and enhancement commitments under the implementing rules and regulations of P.D. 1586	AEPEP
5	MINING LAWS 005: The government official authorized to suspend mining/quarrying operations in case of imminent danger to the environment, public safety and health.	MGB Regional Director
6	MINING LAWS 006: It is mine organization provided under P.D. 7942 that will marshal the corporate resources needed to implement the environmental management programs of the company.	Mine Environmental Protection and Enhancement Office
7	MINING LAWS 007: The staff bureau of the DENR who is responsible for implementing laws, rules, regulations and policies on the mineral resources management and development.	Mines and Geosciences Bureau
8	MINING LAWS 008: The cash fund needed by the contractor in mine rehabilitation.	P5,000,000
9	MINING LAWS 009: It is a stage in the environmental impact statement system where information and assessment requirements are established to provide the proponent with the scope of work of the environmental impact statement.	scoping
10	MINING LAWS 010: The document required of proponent describing the environmental impacts of mitigation and enhancement measures fro projects or undertakings located in an environmentally critical area.	initial environmental examination
11	MINING LAWS 011: It is the exposure of public health or the environmental to toxic substances, hazardous or organic wastes, extraction to natural resources, or activities or structures that could endanger life, health, property or the environment.	public risk
12	MINING LAWS 012: These are persons or entities who may be significantly affected by the projects or undertakings such as, but not limited to members of the local community, industry, LGU, NGO and PO.	stakeholders
13	MINING LAWS 013: The monitoring trust fund to be maintained should be.	P50,000
14	MINING LAWS 014: The staff bureau of the DENR who is responsible for implementing laws, rules and regulations and policies on the environment.	EMB
15	MINING LAWS 015: It is the body created by the Mines and Geosciences Bureau Regional Office that administers the mine rehabilitation fund.	Mine Rehabilitation Fund Committee
16	SURVEYING 001: The line of reference passing the observed and the north-south directions.	meridian
17	SURVEYING 002: It is called true meridian if the poles used are ____	geographic poles
18	SURVEYING 003: If the poles used were magnetic, it is called ____.	magnetic meridian
19	SURVEYING 004: The angle which a line makes with either the north or south end of the meridian or reference line.	bearing
20	SURVEYING 005: It is a magnetic bearing if the meridian used is _____.	magnetic
21	SURVEYING 006: The angle which a certain line makes end of a meridian, measured clockwisely.	azimuth
22	SURVEYING 007: The reference line used in an opening in order to maintain its slop is ____.	gradient line

23	SURVEYING 008: The point where the curve leave the first tangent.	point of curvature
24	SURVEYING 009: The point where the curve joins the second tangent.	point of tangency
25	SURVEYING 010: The point of intersection of the two tangents.	vertex
26	SURVEYING 011: The angle of deflection between the tangent.	intersection angle
27	SURVEYING 012: In order to maintain the right direction/center of an opening in underground, it is necessary to put a _____.	center line
28	SURVEYING 013: The least number of persons needed in order to perform survey in an area.	two
29	METALLURGY 001: Quantitative determination in which metal or metals are separated from impurities by fusion processes and weighed in order to determine the metal content.	fire assaying
30	METALLURGY 002: Selective dissolution of silver and other base metals from dore using dilute nitric acid solution leaving a dull gold flake.	parting
31	METALLURGY 003: Added as a source of lead.	litharge
32	METALLURGY 004: Weight of lead in grams prevented from being reduced by 1 gram of a substance.	oxidizing power
33	METALLURGY 005: Powerful basic flux and by far the cheapest one available. It melts at 852 degrees centigrade. It is often charged equal to the weight of the ore sample.	sodium carbonate
34	METALLURGY 006: Active readily fusible, acid flux. It is often used as a cover for crucible fusion.	borax
35	METALLURGY 007: A fusible compound of earthy or metallic oxides and silica and other acid constituents.	slag
36	METALLURGY 008: Fusion is carried out at _____ temperature.	1000-1200 degrees centigrade
37	METALLURGY 009: The molten charge is poured in an inverted cone called ____.	cast iron mold
38	METALLURGY 010: Cupellation temperature ranges from _____.	850-1000 degrees centigrade
39	METALLURGY 011: An artificial sulphide of ore or more of the metals most often encountered in the niter fusion of sulphide ore when the charge is too acidic.	matte
40	METALLURGY 012: 4RO 3SiO2 is a _____ slag.	sesquisilicate
41	METALLURGY 013: RO SiO2 is a _____ slag.	bisilicate
42	METALLURGY 014: Ores having no oxidizing nor reducing power.	neutral ores
43	METALLURGY 015: Something that has strong affinity for sulfur and which is therefore capable of separating it from some of its substance.	desulfurizing agent
44	METALLURGY 016: Something that converts compounds infusible at a certain temperature into others which melts at this temperature.	flux
45	METALLURGY 017: One assay ton is _____ g.	29.199 grams
46	METALLURGY 018: The formation of thick concentric rings of PbO that further stop oxidation of cupellation.	freezing
47	METALLURGY 019: The best ration of silver to gold in dore bead is the optimum range of _____ Ag:Au.	2:1-3:1
48	METALLURGY 020: The ratio of silver gold in the dore that causes gold to break up.	6:01
49	METALLURGY 021: In parting where selective dissolution of silver and other base metals in the dore bead using dilute HNO3 has an acid concentration of ____ (acid to water ratio).	1:0.5-1:1
50	METALLURGY 022: It is caused by vigorous expulsion of oxygen on rapid solidification of precious metal button. This does no harm unless particles of the bead are completely ejected or unbroken off in cleaning.	sprouting
51	METALLURGY 023: This acid causes spattering during dilution with hot liquid.	sulfuric acid
52	METALLURGY 024: The sample for fire assaying is crushed and pulverized to attain at least ___ mesh.	minus 100

53	METALLURGY 025: In molding for cupel making, what is the pressure range applied for the bone ash to have a good mold? (No answer)	no answer
54	MINERALOGY 001: A type of chemical bond involving the transfer of electrons.	ionic bond
55	MINERALOGY 002: A type of bonding that leads to sharing of valence electrons.	covalent bond
56	MINERALOGY 003: A crystal habit resembling a bunch of grapes.	botryoidal
57	MINERALOGY 004: A habit in which a layer of small crystals cover a surface.	------>
58	MINERALOGY 005: A crystal appearance resembling slender plant-like branches.	dendritic
59	MINERALOGY 006: Property of minerals to break along planes of structural weakness.	fracture
60	MINERALOGY 007: Conchoidal, hackly, and fibrous are kinds of _____.	parting
61	MINERALOGY 008: Malleable, sectile, and ductile are varieties of mineral _____.	tenacity
62	MINERALOGY 009: When a mineral bends and does not return to its original form is said to be _____.	elastic
63	MINERALOGY 010: Quartz and glass exhibits a ____ type of fracture.	conchoidal
64	MINERALOGY 011: The color of a finely powdered mineral is called _____.	streak
65	MINERALOGY 012: The luster of a glass is called ____.	vitreous
66	MINERALOGY 013: A type of luminescence in which the mineral becomes luminous upon crushing, scratching, or rubbing.	triboluminescence
67	MINERALOGY 014: A mineral softer than gypsum is _____.	talc
68	MINERALOGY 015: If the light suffers no absorption on mineral, the mineral is observed to be _____.	colorless or transparent
69	MINERALOGY 016: Give the name: peacock ore	bornite
70	MINERALOGY 017: Give the name: iceland spar	calcite
71	MINERALOGY 018: Give the name: satin spar	gypsum
72	MINERALOGY 019: Give the name: CuS	chalcocite
73	MINERALOGY 020: Give the name: HgS	cinnabar
74	MINERALOGY 021: Give the name: lodestone	magnetite
75	MINERALOGY 022: Give the name: fools' gold	pyrite
76	MINERALOGY 023: Give the name: NaCl	halite
77	MINERALOGY 024: Give the name: KCl	sylvite
78	MINERALOGY 025: Give the name: FeS2	pyrite
79	MINERALOGY 026: Give the name: TiO2	rutile,anatase,brookite
80	MINERALOGY 027: Give the name: AsS	realgar
81	MINERALOGY 028: Give the name: Fe2O3	hematite or limonite
82	MINERALOGY 029: Give the name: MgCO3	magnesite
83	MINERALOGY 030: Give the name: Fe3O4	magnetite
84	MINERALOGY 031: Give the name: FeCO3	siderite
85	MINERALOGY 032: Give the name: Pearl Spar	dolomite
86	MINERALOGY 033: Give the name: Alabaster	gypsum
87	MINERALOGY 034: Give the name: Sb2S3	stibnite
88	MINERALOGY 035: Give the name: CuFeS2	chalcopyrite
89	MINERALOGY 036: Give the name: Cu5FeS4	bornite
90	MINERALOGY 037: Give the name: ZnS	sphalerite
91	MINERALOGY 038: Give the name: FeS	pyrrhotite
92	MINERALOGY 039: Which is not a silicate mineral? (olivine / amphibole / cerrusite / orthoclase)	cerrusite
93	MINERALOGY 040: Which is not a carbonate mineral? (witherite / rhodochrosite / barite / calcite)	barite
94	MINERALOGY 041: Which is not a sulfide mineral (galena / bornite / enargite / cuprite)	cuprite
95	MINERALOGY 042: The principal ore of antimony.	stibnite, antimonite

96	MINERALOGY 043: A mineral compound resulting from a substitution process in which the appearance and dimensions remain constant, but the mineral which makes up the chief component of the compound is replaced by another.	pseudomorph
97	MINERALOGY 044: Minerals having identical compositions, but different crystal structures as in: Graphite and diamond (C), calcite and aragonite ($CaCO_3$), andalusite and sillimanite and kyanite (Al_2SiO_5), low quartz, high quartz, cristobalite, tridymite, coesite, and stishovite (SiO_2).	polymorphs
98	MINERALOGY 045: The term "mineral" connotes the following except for: (a) naturally occurring; (b) organically formed; (c) a solid with a definite chemical composition; (d) homogeneous solid.	organically formed
99	MINERALOGY 046: The following are minerals except for (diamond, sapphire, ruby, pearl).	pearl
100	MINERALOGY 047: Which among the following is not a mineral? (galena / chalcopyrite / coal / stibnite)	coal
101	MINERALOGY 048: The following are ores of copper except (chalcocite / enargite / magnetite / bornite)	magnetite
102	MINERALOGY 049: The following are carbonate minerals except (magnesite / rhodochrosite / anhydrite / aragonite)	anhydrite
103	MINERALOGY 050: Which is not a polymorph? (anatase / brookite / rutile / zircon)	zircon
104	MINERALOGY 051: Which is not a silica mineral? (calcite / cristobalite /quartz / tridymite)	calcite
105	MINERALOGY 052: The following minerals are plagioclase except (albite / anorthite / oligocene / andesine)	oligocene
106	MINERALOGY 053: Which of the following physical properties of minerals is light dependent? (specific gravity / magnetism / diaphaneity / hardness)	diaphaneity
107	MINERALOGY 054: The following minerals are in the Moh's Scale of Hardness except (oligoclase / orthoclase / apatite / fluorite)	oligoclase
108	MINERALOGY 055: The following are tools used for the determination of hardness using Moh's scale except (copper coin / steel file / gypsum board / finger nail)	gypsum board
109	MINERALOGY 056: Selenite is a crystalline variety of the mineral (calcite / gypsum / anhydrite / aragonite)	gypsum
110	MINERALOGY 057: Which of the following minerals has a metallic luster (muscovite / chalcedony / galena / quartz)	galena
111	MINERALOGY 058: Which of the following minerals is non-metallic? (galena / pyrite / magnetite / amethyst)	amethyst
112	MINERALOGY 059: Alabaster is a (a) crystalline gypsum; (b)fibrous gypsum; (c) massive gypsum; (d) glassy gypsum.	massive gypsum
113	MINERALOGY 060: "Black Jack" refers to (galena / sphalerite / chalcopyrite / pyrite)	sphalerite
114	MINERALOGY 061: A mineral occurring as an aggregate of rounded pellets is (magnetic / malleable / oolitic / foliated)	oolitic
115	MINERALOGY 062: The tendency of a mineral to break in well-defined directions is called (luster / specific gravity / cleavage / magnetism)	cleavage
116	MINERALOGY 063: Which of the following minerals has a perfect cleavage.	(quartz / muscovite / chalcedony / opal)
117	MINERALOGY 064: When a mineral can be readily crushed into fine powder it is said to be (malleable / ductile / brittle / sectile)	brittle
118	MINERALOGY 065: Ions or group of ions which produce characteristic colors in minerals are called (chromitites / chromophores / chromium / chromate)	chromophores
119	MINERALOGY 066: Minerals whose color vary greatly due to the presence of pigments, impurities and inclusions are referred to as (idiochromatic / vidiochromatic / allochromatic / hypochromatic)	allochromatic

120	MINERALOGY 067: Gypsum is a hydrous variety of anhydrite thus it differs with the additional content of (sulfur / iron / water / silica)	water
121	MINERALOGY 068: Which of the following minerals effervesces in cold, dilute HCl (anhydrite / chrysocolla / calcite / gypsum)	calcite
122	MINERALOGY 069: Which of the following minerals is non-magnetic (magnetite / pyrrhotite / maghemite / sphalerite)	sphalerite
123	MINERALOGY 070: Which mineral is harder than the fingernail. (gypsum / talc / feldspar / graphite)	feldspar
124	MINERALOGY 071: Pseudomorphism may take place through any of the following processes except for (substitution / alteration / deformation / encrustation)	deformation
125	MINERALOGY 072: Quartz are used in digital watches. This could be attributed to its property called (triboluminescence / pyroelectricity / piezoelectricity / fluorescence).	piezoelectricity
126	MINERALOGY 073: The following mineral properties are dependent on external light source except for (chatoyancy / asterism / luster / luminescence).	luminescence
127	MINERALOGY 074: Silver, platinum and copper belong to a mineral subdivision called (native metals / semi-precious / jewelries / native semi-metals).	native metals
128	MINERALOGY 075: The following are varieties of corundum except for (emerald / ruby / sapphire / emery).	emery
129	MINERALOGY 076: The common element between zincite and sphalerite is _____	zinc
130	MINERALOGY 077: Pyrrhotite is also called "magnetic pyrite." It differs with pyrite in (sulfur content / oxygen content / iron content / copper content)	iron content
131	MINERALOGY 078: The common anion of calcite, aragonite, magnesite, and siderite is ___.	carbonate
132	MINERALOGY 079: The common anion of barite, anhydrite, gypsum, and alunite is ____.	sulfate
133	MINERALOGY 080: The silica tetrahedra has ___ oxygen.	four
134	MINERALOGY 081: The solid solution series forsterite-fayalite of olivine represents substitution of Mg by ___.	Fe
135	MINERALOGY 082: The following minerals belong to the pyroxene group except for (diopside / enstatite / hedenbergite / fluorite).	fluorite
136	MINERALOGY 083: Orthoclase is the potassium rich end of the alkali feldspar; the calcium-rich end of the plagioclase feldspars is called ____.	anorthite
137	MINERALOGY 084: The other series of the olivine group is the monticellite-kirschteinite join. This differs from the fayalite-forsterite series by the presence of ___.	calcium