

**SOUTH WEST REGIONAL MOCK EXAMINATION
GENERAL EDUCATION**

The Teachers' Resource Unit (TRU) in collaboration with the Regional Pedagogic Inspectorates and the South West Geology Subject Teachers' Associations (SOWEGETA)	Subject Code 0755	Paper Number 1
CANDIDATE NAME CANDIDATE NUMBER CENTRE NUMBER	Subject Title GEOLOGY	
ADVANCED LEVEL	DATE 25/03/2022 (Morning session)	

Time Allowed: One hour thirty minutes

INSTRUCTIONS TO CANDIDATES:

1. USE A SOFT HB PENCIL THROUGHOUT THIS EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the Examination begins:

3. Check that this question booklet is headed "Advanced Level – 0755 Geology, Paper 1".
4. Insert the information required in the spaces provided above.
5. Without opening the booklet, pull out the answer sheet carefully from inside the front cover of this booklet. Take care that you do not crease or fold the answer sheet or make any marks on it other than those asked for in these instructions.
6. Insert the information required in the spaces provided on the answer sheet using your HB pencil:

Candidate Name, Centre Number, Candidate Number, Subject Code Number and Paper Number.

How to answer questions in this examination:

7. Answer ALL the 50 questions in this examination. All questions carry equal marks.
8. Non-programmable calculators are allowed.
9. For each question there are four suggested answers, A, B, C, and D. Decide which answer is correct. Find the number of the question on the Answer sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen. For example, if C is your correct answer, mark C as shown below

$\left[\begin{matrix} A \\ \hline \end{matrix} \right] \left[\begin{matrix} B \\ \hline \end{matrix} \right] \left[\begin{matrix} C \\ \hline \end{matrix} \right] \left[\begin{matrix} D \\ \hline \end{matrix} \right]$

10. Mark only one answer for each question. If you mark more than one answer, you will score zero for that question. If you change your mind about an answer, erase the first mark carefully, and then mark your new answer.
11. Avoid spending much time on any question. If you find a question difficult, move to the next question. You can come back to this question later.
12. Do all rough work in this booklet using, where necessary, the blank spaces in the question booklet.
13. Mobile phones are **NOT ALLOWED** in the examination room.

You must not take this booklet and answer sheet out of the examination room. All question booklets and answer sheets will be collected at the end of the examination.

1. This process occurs when solid material or soil detaches from a steep slope and falls freely for some distance, and then bounces and rolls prior to coming to a stop."

- A. Rock fall.
- B. Slides.
- C. Mudflow.
- D. Debris flow.

2. A rock composed of cemented sand and gravel is:

- A. Shale.
- B. Conglomerate.
- C. Granite.
- D. Marble.

3. Which geologic Epoch belongs in the Cenozoic era?

- A. Paleocene.
- B. Pennsylvanian.
- C. Quaternary.
- D. Cretaceous.

4. Temperatures at which lava solidifies ranges from about _____ °C for silica-rich lava to about _____ °C in for silica-poor lava.

- A. 100; 200.
- B. 300; 1000.
- C. 700; 1200.
- D. 1000; 2000.

Study the crystal model below and answer question 5.

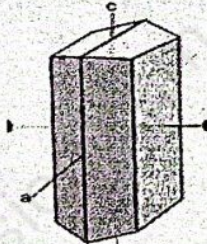


Figure. 1

5. What diagnostic symmetry elements are used to classify this crystal model into its crystal system?

- A. 3 planes of symmetry, 3 axes of symmetry and a center of symmetry.
- B. No plane, no axes and a center of symmetry.
- C. 1 plane, 1 axis and a center of symmetry.
- D. 3 planes, 4 axes and a center of symmetry.

6. When clay hardens into a rock, it forms _____

- A. Coal
- B. Shale

- C. Quartzite.
- D. Limestone.

7. Identify the type of dentition displayed by the fossil in figure 2 below.



Fig. 2

- A. Edentate.
- B. Isodont.
- C. Heterodont.
- D. Taxodont.

8. Which of the following elements is found in the earth's crust both as a native element and as a compound?

- A. Argon.
- B. Copper.
- C. Chlorine.
- D. Silicon.

9. The following are major intrusive rocks;

- A. Sill, dyke, batholiths.
- B. Sill, laccolith, batholith.
- C. Laccoliths, batholiths, dyke.
- D. Stock, batholith, localoliths.

10. Chalcopyrite (CuFeS_2) with 83 percent of cu metal is considered a/an;

- A. Mineral deposit.
- B. Ore deposit.
- C. Ore mineral.
- D. Metallurgy.

11. Which of the following is the oldest rock in Cameroon?

- A. Porphyritic basalts at Bakingili.
- B. Pyritised shales at Ediki.
- C. Gneiss at Maham III.
- D. Sandstone at Bekoko.

12. Which of the following is a coastal basin in Cameroon?

- A. Mamfe Basin.
- B. Yola-Garoua Basin.
- C. Djerem-Mbere Basin.
- D. Rio del Rey Basin.

13. The magnitude of an earthquake measures _____

- A. The amount of destruction.
- B. The degree of trembling.
- C. The amount of energy released.
- D. The intensity of the quake.

Study the sketch of the fault in figure 3 and answer question 14.

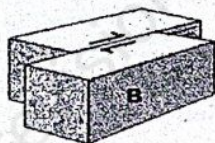


Figure. 3

14. What will be the result of the fault movement illustrated above if it occurs on the ocean floor?

- A. Land slide.
- B. Mass movement.
- C. Tsunami.
- D. Volcanoes.

15. Which is the most abundant rock type on the surface of the earth?

- A. Igneous rock.
- B. Sedimentary rock.
- C. Metamorphic rock.
- D. All rocks are abundant.

16. Identify the order of the layers of the earth in order of decreasing depths;

- A. Mantle, crust, outer core, inner core.
- B. Crust, mantle, outer core, inner core.
- C. Outer core, mantle, crust, inner core.
- D. Inner core, outer core, mantle, crust.

17. Which of the following gives us evidence of sea floor spreading?

- A. Evidence from sea floor topography.
- B. Seismic waves.
- C. Past glacial deposits.
- D. Bauxite deposits.

18. Which of the following are features formed by marine erosion?

- A. Bar.
- B. Tombolo.
- C. Blowhole.
- D. Dune.

19. Which of the following metamorphic rock is likely to contain fossils?

- A. Gneiss.
- B. Slate.
- C. Phyllite.
- D. Schist.

Study figure 4 below to answer question 20

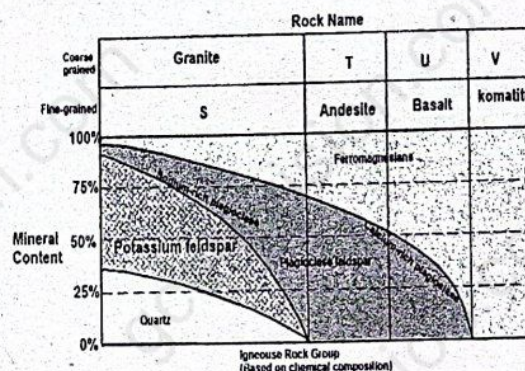


Figure. 4

20. Identify the equivalent (S, T, U, V) rock names of those labeled on the table based on their texture.

- A. Granodiorite; Dunite; Gabbro; Pyroxenite.
- B. Rhyolite; Diorite; Gabbro; Peridotite.
- C. Peridotite; Gabbro; Dunite; Rhyolite.
- D. Rhyolite; Syenite; Gabbro; Peridotite.

21. The process of wearing down of a river bed as particles hit against the bed and banks is known as;

- A. Erosion.
- B. Abrasion.
- C. Hydraulic action.
- D. Solution.

22. A ridge of sediment, usually sand and gravel, deposited in the middle or along the banks of a stream is referred to as;

- A. Bar.
- B. Dune.
- C. Placers.
- D. Delta.

23. Differential stress produces a typical metamorphic texture known as;

- A. Migmatitic texture.
- B. Porphyroblastic.
- C. Gneissose texture.
- D. Granoblastic texture.

24. An aquifer is defined as;

- A. A body of saturated rock or sediment through which water can move easily.
- B. A body of rock that retards the flow of ground water.
- C. A body of rock that is impermeable.
- D. A body of rock that contains voids.

25. Which geologic process produces metallic ores at diverging plate boundaries?

- A. Hydrothermal processes.
- B. Pneumatolytic processes.
- C. Exo-genetic processes.
- D. Metamorphism.

26. A type of suture in ammonitic shells with saddles and lobes that are entire is referred to as;

- A. Ceratitic suture.
- B. Goniatic suture.
- C. Amonitic suture.
- D. Planulate suture.

27. Which of these sedimentary structures can be used to interpret paleo-current direction?

- A. Mud cracks.
- B. Cross-bedding.
- C. Graded bedding.
- D. Flame structures.

Study figure 4 and answer the questions below.

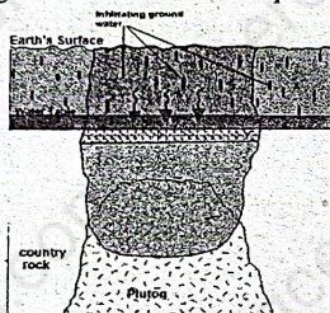


Figure. 5

28. An example of an ore metal formed through this process is?

- A. Copper (Cu).
- B. Banded iron formation (BIF).
- C. Iron (Fe).
- D. Chalcocite (Cu_2S).

29. Which of these is least likely to form clay minerals during weathering?

- A. Feldspars.
- B. Quartz.
- C. Amphibole.
- D. Olivine.

30. Repetition of beds on a geological map may be due to;

- A. Weathering.
- B. Unconformity.
- C. Folding.
- D. Disconformity.

31. The occurrence of early formed olivine crystals surrounded by rims of pyroxenes and amphiboles successively is described as;

- A. Zonation.
- B. Corona structure.
- C. Porphyritic structure.
- D. Porphyroblastic texture.

32. A trilobite preserved in Cretaceous rocks is described as a;

- A. Remanic fossil.
- B. Transported fossil.
- C. Zone fossil.
- D. Derived fossil.

33. The compass direction of a line formed by the intersection of an inclined plane with a horizontal plane is called;

- A. Strike.
- B. Direction of dip.
- C. Angle of dip.
- D. Axis.

34. The inner smaller planets are generally distinguished from the others by their;

- A. High densities.
- B. Lower densities.
- C. Larger sizes.
- D. Gaseous nature.

35. Folds with inter-limb angles ranging from 70° to 30° are considered to be;

- A. Closed folds.
- B. Open folds.
- C. Tight folds.
- D. Isoclinal folds.

36. On which of the following can C-14 dating be used?

- A. Rocks of the CVL.
- B. Shells of Brachiopods.
- C. Granite.
- D. Mineral deposits.

37. A geologist could use the principle of inclusion to determine;

- A. The relative age of fossils.
- B. The ages of the minerals in rocks.
- C. Shale layers.
- D. Xenoliths.

38. The process of partial or complete melting of and incorporation of wall rocks into magma resulting to changes in the composition of magma is referred to as;

- A. Magma mixing
- B. Partial melting
- C. Crystal settling
- D. Assimilation

Questions 39- 40 refers to the diagram below

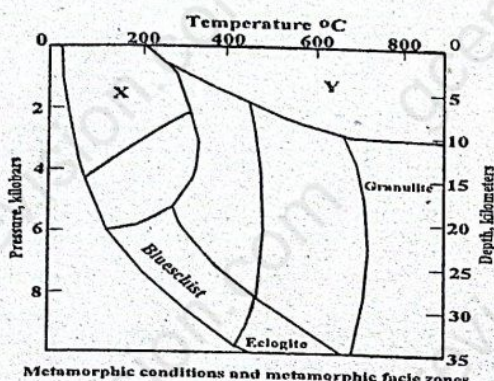


Figure. 6

39. What is the economic importance of a typical rock formed under conditions of facies zone X?

- A. Road construction.
- B. Cement production.
- C. Roofing materials.
- D. Building construction.

40. What conditions prevail in the facie zone labeled Y?

- A. Increasing temperature, rising pressure, and increasing depth.
- B. Rising temperature, low pressure and stress.
- C. Rising temperature, low pressure and chemically active fluids.
- D. Shear stress, rising temperature, low pressure.

Study the map extract and answer questions 41 and 42.

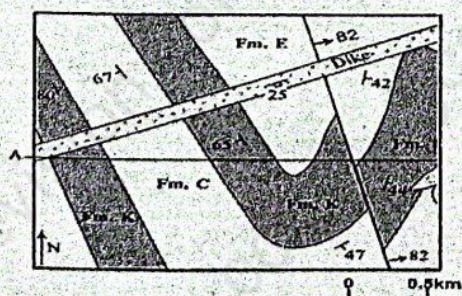


Figure. 7

41. Identify the fault shown on the map and give its general trend.

- A. Horizontal (right lateral) fault with NNW-SSE trend.
- B. Horizontal (left lateral) fault with N-S trend.
- C. Dip slip (normal) fault with NNE-SSE.
- D. Dip slip (reverse) fault with E-W trend.

42. The structure represented on the map is?

- A. Symmetrical anticline.
- B. Symmetrical syncline.
- C. Asymmetrical antiform.
- D. Asymmetrical synform.

43. Which of these would characterize a depositional coast?

- A. Headlands.
- B. Barrier islands.
- C. Stacks.
- D. Arches.

44. A geometric feature in rock whose shape, form, and distribution can be described as;

- A. Texture.
- B. Feature.
- C. Structure.
- D. Morphology.

45. A type of unconformity characterized by the occurrence of sedimentary rocks on igneous/metamorphic rocks is known as

- A. Angular.
- B. Nonconformity
- C. Paraconformity.
- D. Disconformity.

46. The Fossil Group represented below figure 8 is of stratigraphic importance because?



Figure. 8

- A. The ammonoids are the most important Mesozoic index fossils.
- B. Their wide geographic occurrence, their rapid diversification, and the persistence of a few genera through the Permian and Triassic.
- C. They spread into all parts of the oceans in the late Mesozoic.

- D. Commonly well preserved, easy to identify, wide occurrence and in quick succession in a range of facies.

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47. A mineral is inorganic. It means;

- A. It is formed from compounds.
 - B. Made up of parts of living things.
 - C. Not composed of materials which were from living things.
 - D. Composed of materials which were once part of living things.
-

48. What is the most common source of sand on beaches?

- A. Sand from river sediment brought down to the ocean.
 - B. Offshore sediments.
 - C. Land next to the beach.
 - D. Sand deltas.
-

49. Which of the following minerals is most resistant to both chemical and mechanical weathering is?

- A. Calcite.
 - B. Muscovite.
 - C. Hornblende.
 - D. Quartz.
-

50. How do rock particles move during the passage of P- waves through the rock?

- A. Back and forth parallel to the direction of wave movement.
- B. In a rolling circular manner.
- C. Up and down the direction of wave propagation.
- D. Perpendicular to the direction of wave travel.

END

GO BACK AND CHECK YOUR WORK.