

**SOUTH WEST REGIONAL MOCK EXAMINATION
GENERAL EDUCATION**

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| The Teachers' Resource Unit (TRU) in collaboration with the Regional Pedagogic Inspectorates and the South West Geology Subject Teachers' Associations (SOWEGETA) | Subject Code 0555 | Paper Number 1 |
| CANDIDATE NAME CANDIDATE NUMBER CENTRE NUMBER | Subject Title GEOLOGY | |
| ORDINARY LEVEL | | |

Time Allowed: One Hour Thirty Minutes

INSTRUCTIONS TO CANDIDATES:

- USE A SOFT HB PENCIL THROUGHOUT THIS EXAMINATION.
- DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
Before the Examination begins:
- Check that this question booklet is headed "Ordinary Level – 0555 Geology, Paper 1".
- Insert the information required in the spaces provided above.
- 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.
- 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:
- Answer ALL the 50 questions in this examination. All questions carry equal marks.
- Non-programmable calculators are allowed.
- 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

(A) (B) (C) (D)
- 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.
- 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.
- Do all rough work in this booklet using, where necessary, the blank spaces in the question booklet.
- 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. A branch in geology could be;

- A. Commercial Geology
- B. Economic Geology
- C. Paleontologist
- D. Mineralogy

2. Geologist refer to it as the hottest planet:

- A. Jupiter
- B. Venus
- C. Mars
- D. Earth

3. The intensity of an earthquake is a measure of ----

- A. The total houses destroyed
- B. The number of registered deaths
- C. The amount of destruction it causes
- D. The amount of energy it releases

4. Rocks formed in layers are said to be:

- A. Crystalline
- B. Stratified
- C. Chemical
- D. Metamorphosed

5. What theory explains how the different continental coastlines appear to fit together?

- A. Sea Floor Spreading
- B. Continental Drift
- C. Jigsaw Puzzle
- D. Isostasy

6. A mode of fossilization by which the entire organism is preserved is known as:

- A. Carbonization
- B. Cast
- C. Mould
- D. Foot prints

7. A sedimentary rock formed from broken fragments of preexisting rocks is referred to as a:

- A. Pyroclastic Rock
- B. Pelitic Rock
- C. Chemically formed rock
- D. Clastic rock

8. What term is used to refer to the total amount of material that a river can carry?

- A. Capacity
- B. Competence
- C. Discharge
- D. Load

9. Which of the following surface process results to the general lowering and shaping of our landscape?

- A. Our Rock Cycle
- B. Weathering
- C. Erosion
- D. Denudation

10. A sedimentary rock rich in fossils is often;

- A. Fined grained
- B. Medium grained
- C. Coarse grained
- D. Fined-medium grained

11. The discontinuity which marks the lower boundary of the upper crust is;

- A. Conrad discontinuity
- B. Guttenberg discontinuity
- C. SIAL layer
- D. Moho discontinuity

12. It is an example of a greenhouse gas;

- A. Ethane
- B. Carbondioxide
- C. Nitrogen
- D. Oxygen

13. The one continent splitted and drifted producing two continents. The South block was called;

- A. Laurasia
- B. Pangaea
- C. Gondwanaland
- D. Eurasia

14. The following are major intrusive rocks;

- A. Sill, dyke, batholiths
- B. Monolith, laccolith, batholith
- C. Laccoliths, batholiths, dyke
- D. Stock, plugs, batholith, locoliths

15. The non-metallic minerals associated with ore minerals are called;

- A. Gangue minerals
- B. Non-metallic ore minerals
- C. Primary minerals
- D. Accessory minerals

16. In studying the river profile, at what stage is erosion more predominant?

- A. Mature
- B. Youthful
- C. Middle course
- D. Old age stage

Study Fig. 1 to answer question 17 below.

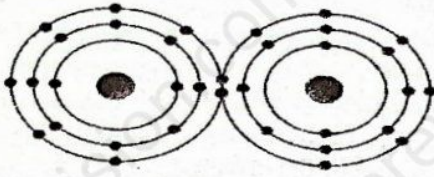


Figure. 1

17. What is the type of bonding in the chemical process above?

- A. Ionic
- B. Covalent
- C. Metallic
- D. Non-metallic

18. The migration of petroleum from source to reservoir rocks is termed;

- A. Secondary migration
- B. Temporal migration
- C. Migration
- D. Primary migration

19. 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

20. To which phylum does the fossil on Figure 2 below belong?



Figure 2

- A. Mollusca
- B. Coelenterata
- C. Arthropoda
- D. Brachiopoda

21. If the sea level rises and the land submerges, we say there is marine ____

- A. A transgression
- B. A tidal wave action
- C. A regression
- D. A sea current action

22. 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

23. Which of the following types of metamorphism below involves the effect of heat from a batholith;

- A. Regional metamorphism
- B. Dynamic metamorphism
- C. Contact metamorphism
- D. Both contact and dynamic metamorphism

24. An example of a fossilized hard part in vertebrates is:

- A. Bone
- B. Lignin
- C. Resin
- D. Cellulose

Study figure 3 below to answer question 25

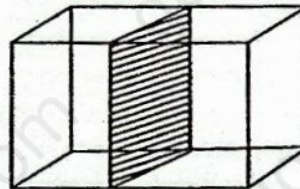


Figure. 3

25. What does the shading on figure 2 above demonstrate?

- A. Plane of symmetry
- B. Center of symmetry
- C. Axis of symmetry
- D. Zone

26. What system does the crystallographic axes a,b,c represent?

- A. Tetragonal
- B. Hexagonal
- C. Monoclinic
- D. Trigonal

27. Which of the following is the chemical formula for Calcite?

- A. $CaCO_3$
- B. $CaMgSO_4$
- C. $CaHCO_3$
- D. $CaMgO_2$

28. What is the effect of volatile components in a magma:

- A. Increases its viscosity
- B. Moderates its viscosity
- C. Lowers its viscosity
- D. Causes magma not to flow

Study Figure 4 below of the ZZ drainage pattern displayed by a stream and answer question 29.

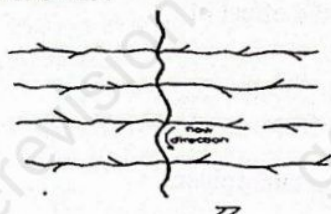


Figure. 4

29. Identify the drainage pattern ZZ above.

- A. Dendritic
- B. Rectangular
- C. Trellis
- D. Radial

30. It is referred to as a low grade regional metamorphic rock formed from mudstone and shows cleavages.

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

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

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

32. Rocks can be classified as sedimentary, igneous, or metamorphic based primarily upon differences in their;

- A. Color
- B. Origin
- C. Density
- D. Age

33. Storage capacity of an aquifer depends on;

- A. Porosity of its rocks
- B. Porosity and perviousity
- C. Inter-connections of the pore spaces
- D. Porosity and inter-connections of pore spaces

34. The following rock types are the plutonic equivalences of the volcanic rocks rhyolite and basalts?

- A. Diorite, granite
- B. Gabbro, scoria
- C. Gabbro, granite
- D. Granite, gabbro

35. Highly explosive craters are likely to be produced by the;

- A. Eruption of acidic magma
- B. Eruption of basic magma
- C. Eruption of alkaline magma
- D. Eruption of both basic and alkaline magma

36. This statement describes one of the effects of global warming;

- A. Crystallization of ice in the sea
- C. Rise in sea level
- B. Heavy thundering
- D. Fall in sea level

37. The incomplete nature of the fossil record can be attributed to:

- A. Destruction of organisms by fossils
- B. The inability of fine-grained rocks to preserve fossils
- C. Coarse grained rocks were rare
- D. Some fossil groups were restricted in place

Study the fault on Figure 5 and answer question 38.

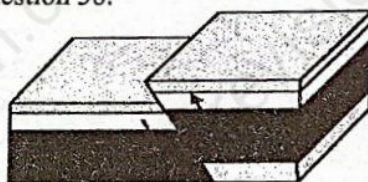


Figure. 5

38. What type of fault is represented by the diagram above?

- A. Thrust fold
- B. A Reverse fault
- C. Recumbent fold
- D. Normal fault

39. A seismograph is a device used to:

- A. Sound an alarm to check the intensity of an earth quake
- B. Record the vibrations produced during an earthquake
- C. Prevent earthquakes from occurring
- D. Record the changes that occur during an earthquake

Study figure 6 and answer question 40.



Figure 6

40. What physical property is displayed by the mineral structure above?

- A. Cleavage

- B. Texture
- C. Fracture
- D. Structure

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41. In seismology, all of the following are TRUE of P waves except that they:

- A. Can pass through liquids
- B. Are body waves
- C. Travel like love waves
- D. Are faster than S waves

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42. In a folded sedimentary bed, if compressional force is unequal on both sides of the limbs of a syncline, then the fold is said to be;

- A. Equal
- B. Asymmetrical
- C. Symmetrical
- D. Bent

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43. The sand blasting effect of wind produces tabular masses of rocks with a characteristic ridge and furrow landscape called:

- A. Rock pedestals
- B. Mesas
- C. Inselbergs
- D. Zeugens

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44. In the desert, wind transports its load by 3 methods, one of which is;

- A. Abrasion
- B. Attrition
- C. Deflation
- D. Suspension

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45. Which of the following textures would be displayed by a lava flow?

- A. Vesicular texture
- B. Porphyritic
- C. Coarse grained
- D. Medium grained

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46. Geology students in BGS Molyko Buea were asked to choose a material to be used as dimension stones in the construction of a University theatre hall. Their choice of granite is likely because:

- A. It is a very resistant plutonic rock
- B. It is not resistant to weathering
- C. It is well jointed
- D. It is very cheap

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47. It is an example of a plate boundary illustrated in the figure 7 below.



Plate X

Plate Y (Figure. 7)

- A. Convergence -continent/continent collision
- B. Convergence- Continent /oceanic collision
- C. Divergent -Oceanic/oceanic collision
- D. Transform-continental /continental collision

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Use Figure 8 to answer questions 48 to 50 below.

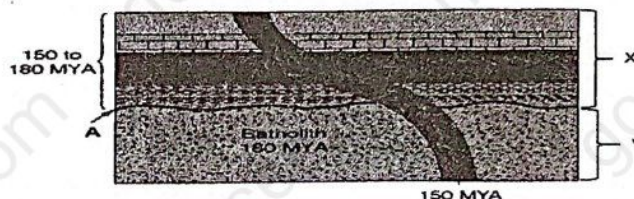


Figure 8

48. What type of unconformity is exemplified by the feature?

- A. Heterolithic unconformity
- B. Non depositional
- C. Parallel unconformity
- D. Angular unconformity

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49. Which is the youngest activity on the feature?

- A. X
- B. Y
- C. Z
- D. XY

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50. What principle of relative dating is demonstrated by figure 8 above?

- A. Principle of cross cutting relationship
- B. Principle of included fragments
- C. Principle of lateral continuity
- D. Principle of original horizontality

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END

**GO BACK AND CHECK
YOUR WORK**