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GENERAL CERTIFICATE OF EDUCATION MOCK EXAMINATION	SUBJECT CODE NUMBER 0755	PAPER NUMBER 1
CANDIDATE'S NAME: CANDIDATE'S NUMBER: CENTER NUMBER:	SUBJECT TITLE GEOLOGY	
ADVANCED LEVEL	SESSION: MARCH 2024	

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Marked by: Signature: Date:	SCORE
Checked by: Signature: Date:	

Time Allowed: One and a Half Hour.
Mobile phones are NOT ALLOWED in the examination room.

MULTIPLE CHOICE QUESTION PAPER
INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and eraser for this examination.

1. USE A SOFT HB PENCIL THROUGH OUT THE 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 1'.
4. Fill in the information required in the spaces above.
5. Fill in the information provided in the answer sheet using your HB pencil: **Candidate Name, Exam Session, Subject Code, Centre Number, and Candidate Number.** 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.

How to answer the questions in this examination.

6. Answer **ALL the 50** questions in this examination. Each question carries one mark.
7. Non-programmable calculators are allowed.
8. Each question has four suggested answers; **A, B, C and D.** Decide which answer is appropriate. Find the question number on the answer sheet and draw a horizontal line across the letter to join the square brackets for the answer chosen.

For example, if **C** is the correct answer, mark the answer as shown below.

[A] [B] [C] [D]

9. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, and then mark your new answer.
10. Avoid spending too much time on any question. If you find a question difficult, move on to the next question. You can come back to this question later.
11. Do all rough work in this booklet, using where necessary, the blank spaces in the question booklet.
12. **At the end of the examination, the invigilator shall collect the answer sheet first and then the question booklet. DO NOT ATTEMPT TO LEAVE THE EXAMINATION HALL WITH IT.**

- The universe originated from a violent cosmic explosion called:
 - Tectonics.
 - Ylem.
 - Big band.
 - Nebular.
- The following pairs of planets lack satellites:
 - mercury and Venus.
 - earth and mercury.
 - Uranus and Neptune.
 - mars and Venus

Study figure 1 below and answer question 3.

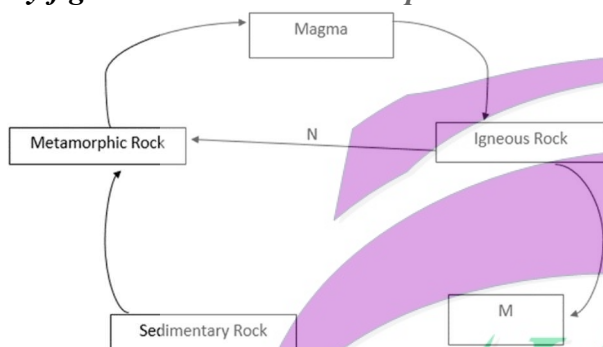


Figure 1

- M and N on the diagram below represent _____ and _____ respectively.
 - Compaction and cooling.
 - Sediments and metamorphism.
 - Deposition and transport.
 - Erosion and weathering

- The crystallographic axes that all meet at right angles (90°) to each other said be:
 - Special axis.
 - Non-orthogonal.
 - Orthogonal.
 - Diagonal.

Study the crystal model (figure 2) below and answer question 5 and 6.

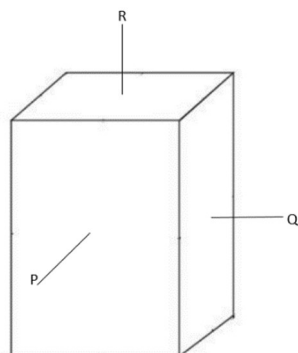
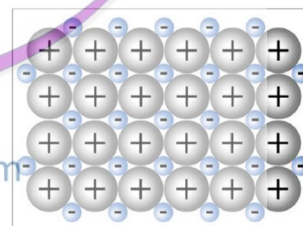


Figure 2

- The letters P, Q, and R represent crystallographic axes:
 - a_1, a_2, a_3
 - a_1, a_2, c_1 .
 - a_1, a_2, a_3, c .
 - a, b, c.
- To which crystal system does the crystal model belong?
 - Cubic.
 - Tetragonal.
 - Hexagonal.
 - Orthorhombic
- A phenomenon whereby a mineral assumes a shape which is not its true shape is called:
 - Polymorphism.
 - Pseudomorphism.
 - Isomorphism.
 - Metamorphism.
- Which of the following silicate minerals shows paired structure of silicon tetrahedral units?
 - Diamond.
 - Orthoclase.
 - Melilite.
 - Biotites.
- What type of bonding does the diagram (figure 3) below illustrate?
 - Covalent bonding.
 - Ionic bonding.
 - Metallic bonding.
 - Vander waal



(figure 3)

- Some volcanoes may erupt more violently than others because:
 - They are fed by less viscous magma.
 - They erupt frequently.
 - High pressure within the magma chamber.
 - Eruptions occur through fissures.



11. The composition of magma influences its viscosity. Which combination of ions shown below indicates magma of high viscosity?

- Na^+ , K^+ , Mg^{2+} .
- Si^{4+} , Al^{3+} , K^+ .
- Na^+ , Si^{4+} , K^+ .
- Ca^{2+} , Mg^{2+} , F_2 .

12. According to the elastic rebound theory, what may be the main cause of earthquakes?

- Volcanicity.
- Tectonism.
- Man's activity.
- Isostasy.

13. What evidence proved that south America, Africa, India and Australia were once covered by glaciers?

- Cold climate
- Enormous valleys formed by glacier.
- Left over portion of glacier.
- Similar volcanoes.

Study the histogram below (figure 4) and answer question 14 and 15.

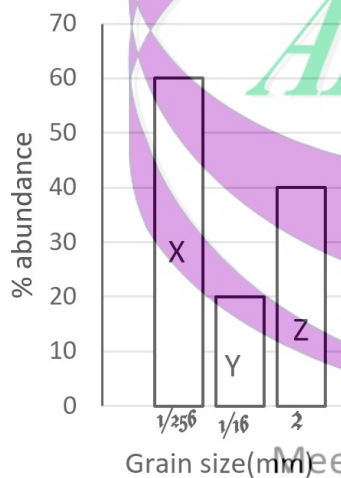


figure 4

14. X, Y, and Z on the figure above represent 3 clastic sedimentary rocks respectively which are:

- Sand stone, siltstone, shale.
- Sandstone, shale, sandstone.
- Shale, silt stone sand stone.
- Siltstone, sand, shale.

15. Which of the rocks on the histogram above has the highest fossil preservation potential?

- X.
- Y.
- Z.
- Non

16. A possible environment where you would likely find shale is:

- Beach.
- Geosynclines.
- Deep marine.
- Glacial.

17. The table below shows classification of igneous rocks based on silica content. Identify X and Y.

% silica	<45%	45-52%	52-66%	>66%
Name of rock	Peridotite	X	Andesite	Y

- Obsidian and gabbro
- Gabbro and dunite.
- dolerite and granite.
- Granite and gabbro

18. P and Q are two vesicular igneous rocks. P is light in colour and floats on water while Q will sink to the bottom. Identify P.

- vesicular basalt
- Amygdaloidal basalt
- Pumice
- Scoria

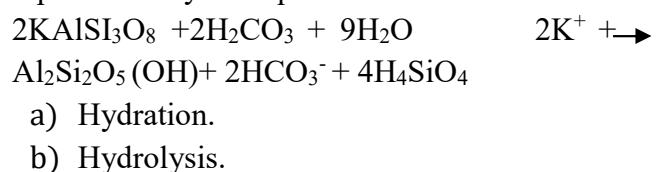
19. What is the essential difference between orthoquartzite and quartzite?

- orthoquartzite is sedimentary while quartzite is metamorphic.
- orthoquartzite is protolith from which quartzite is metamorphosed.
- orthoquartzite is dominant over quartzite.
- orthoquartzite is metamorphosed to quartzite.

20. A civil engineer digging a road comes across a hand coarse grained crystalline rock showing lineation, foliation, and banding, identify the rock.

- Slate.
- Schist.
- Granite.
- Gneiss.

21. Which process of chemical weathering is represented by the equation below?



- c) Oxidation.
- d) Carbonation.

22. The area with the highest rate of weathering as shown by the table below is:

Temperature	-10°	0°	38°
Area	O	B	Q

- a) P.
- b) O and Q.
- c) Q.
- d) P and Q.

Study the landform (figure 5) below and answer questions 23 and 24.

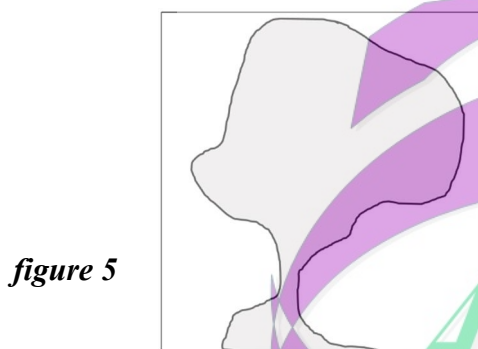


figure 5

23. In which environment can the above feature be found?

- a) Beach environment.
- b) Glacial environment.
- c) Arid environment.
- d) Lacustrine environment

24. Identify the above feature.

- a) Inselberg.
- b) Clift.
- c) Rock pedestal.
- d) Rock tors.

25. Which of the following can be found around point F (figure 6)?

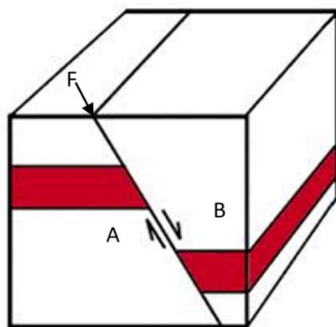


figure 6

- a) Conglomerate and fault breccia.
- b) Breccia and Sandstone.
- c) Breccia and mylonite.
- d) Slate and fault breccia.

26. In a reverse fault the block that lies on the fault plane is:

- a) Foot wall.
- b) Hanging wall.
- c) Hade.
- d) Hinge wall.

27. A geology student on field work comes across a flexure which can also be called a

- a) Syncline.
- b) Fold.
- c) Anticline.
- d) Antiform

Study the diagram (figure 7) below and answer question 28 and 29.

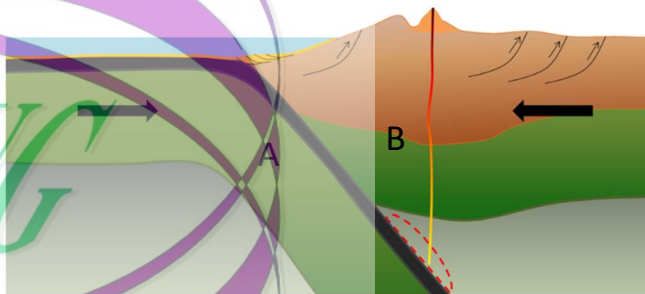


figure 7

28. A type of collision represented by the diagram above is called:

- a) Ocean -ocean convergence.
- b) Continent – continent convergence.
- c) Continent - ocean convergence.
- d) Ocean - continent divergence.

29. What property brings about the subduction of plate A as seen on the figure above?

- a) Density of the plates.
- b) Velocity of the plates.
- c) Temperature.
- d) Pressure.

Study the diagram below (figure 8) which shows the coiling of a gastropod shell and answer questions 30 and 31.



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figure 8

30. Which type is coiling best describes the shell above?

- a) Helicoidal.
- b) Plano spiral.
- c) Sinoatrial.
- d) Dextral.

31. Based on the shape of the aperture, the shell is best described as

- a) Holostomatous
- b) siphonal stomatous.
- c) Opisthodontic.
- d) Amphithetic

32. Which of the following characteristics accounts for the high preservation potential of bivalves and trilobites respectively?

- a) Presence of hard part.
- b) Presence of calcareous and chitinous exoskeleton.
- c) Presence of soft and hard parts.
- d) Soft and hard part.

33. The rocks gneiss and granite were collected by a geology student in Fiango. Of which age could the rocks be?

- a) Tertiary.
- b) Triassic.
- c) Carboniferous.
- d) Precambrian.

34. Which stratigraphic principle is illustrated on the diagram (figure 9) below?

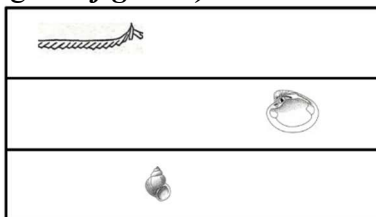


figure 9

- a) Crosscutting relationship.
- b) Included fragments.
- c) Faunal Succession.
- d) Lateral continuity.



35. A coal seam which dips at 30° has a width of outcrop of 1.5M. What is the thickness of the coal seam?

- a) 0,75M.
- b) 2,6M.
- c) 1.15M.
- d) 3M.

36. Graphite is used to make pencil because of its.....

- a) Hardness.
- b) luster.
- c) malleability.
- d) Electric conductivity.

37. Which property of talc makes it suitable for the production of powder and make up products?

- a) Hardness and luster.
- b) Hardness and antiseptic property.
- c) Density and magnetism.
- d) Fracture and tenacity

38. The Nkapa Formation consists of the intercalation of sand within shale and mudstone. What is the significance of this shale?

- a) Aquitards.
- b) Source rock.
- c) Aquiclude.
- d) Aquifer.

39. Which of the following is the desired metal during the extraction of hematite in Cameroon?

- a) laterite.
- b) copper.
- c) limonite.
- d) iron

40. Which among the following is a mitigation technique for landslide?

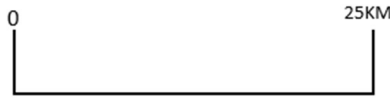
- a) Deforestation
- b) Terracing.
- c) Building along drainage.
- d) Building along slopes.

41. An ore of silver contains 14,5% silver, what is the concentration factor of silver if the abundance of silver in the crust is about 0.006%?

- a) 241,6
- b) 2614

- c) 0.087
d) 2216

42. What type of scale is represented below?



- a) Numerical scale.
b) Richter scale.
c) Graphical scale.
d) Mercalli scale.

43. What is the nature of beds on the map (*figure 10*) below?

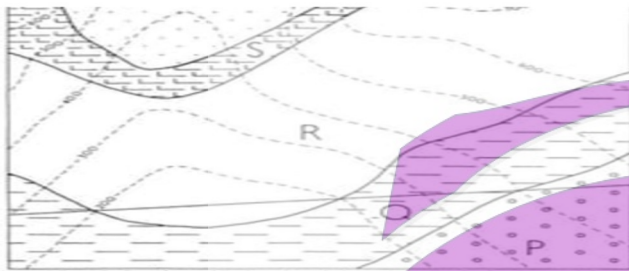


figure 10

- a) Vertical
b) Incline
c) Horizontal
d) Plane.

44. The presence of manganese nodules on a map or on the field signifies.....

- a) Heterolytic unconformity
b) angular unconformity.
c) Parallel unconformity.
d) depositional unconformity

Study the map in figure 11 and answer questions 45, 46, 47

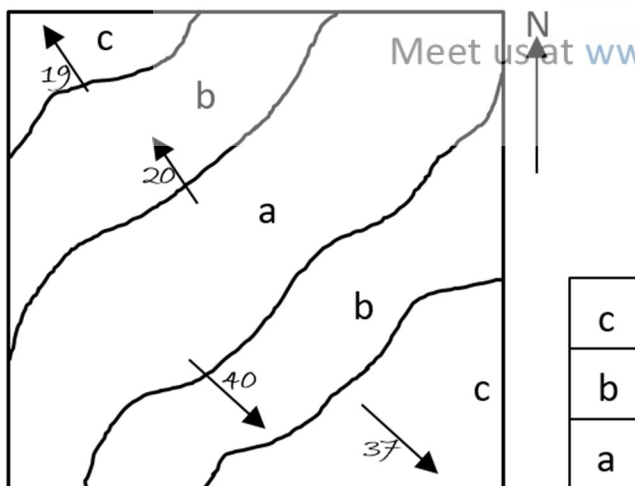


figure 11

45. What name is given to the structure on the map above?

- a) Antiform.

- b) Synform.
c) Syncline.
d) Anticline.

46. Calculate the interlimb angle.

- a) 20°
b) 30°
c) 122°
d) 10°

47. State the symmetry of the fold with reason(s).

- a) Symmetrical, dip arrow value on both side of the limbs are equal.
b) Asymmetrical, dip arrow values on the northern limb is the same with dip arrow value on southern limb.
c) Asymmetrical, dip arrow values on the southern limb is greater than the dip arrow values on northern limb.
d) unequal limbs.

48. The unique feature of the oceanic crust is:

- a) Plane.
b) Plateau.
c) Mountain.
d) Mid oceanic ridge.

49. Which of the following values corresponds to the total mass of the Earth?

- a) 33.5×10^{24} kg.
b) 5.53×10^{23} kg
c) 5.5 cm^3 .
d) 5.97×10^{24} kg

50. The depth within the Earth crust that signifies the shadow zone is:

- a) 4900km
b) 2900km
c) 1900km
d) 3900km

END



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