

2022 XI 21

0230

Seat No.

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Time : 1½ Hours

FIRST-TERM

GEOLOGY

Subject Code

H	4	7	0	6
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Total No. of Questions : 40 (Printed Pages : 12)

Maximum Marks : 40

- INSTRUCTIONS :**
- (i) This paper contains **40** questions carrying 1 mark each.
 - (ii) Every question has *four* choices for its answer (A), (B), (C), (D) and only one of them is correct answer.
 - (iii) On the OMR sheet, for each question number, darken with a ball point pen **ONLY ONE** bubble corresponding to what you consider to be the most appropriate answer, from among the four choices.
 - (iv) **Please note that it is not possible to change the answer once you have filled up the bubble with a ball point pen. Hence sufficient care must be taken while darkening the bubbles.**
 - (v) For each question, you will be awarded ONE mark if you have darkened only the bubble corresponding to the correct answer. In all other cases, you will get zero mark. **There is no negative mark.**
 - (vi) Only *one* OMR sheet will be provided.
 - (vii) Use only Black *or* Blue ball point pen.

1. When the plunge of fold is zero, then the axis of the fold is said to be 1
 - (A) Vertical
 - (B) Horizontal
 - (C) Inclined at 60° to the horizontal
 - (D) Inclined at 60° to its normal

2. Folds characterized by well-defined, sharp hinge points are called 1
 - (A) Conjugate folds
 - (B) Chevron folds
 - (C) Cuspate folds
 - (D) Cylindrical folds

3. Match list I with list II and select the *correct* answer using the codes given below the lists : 1

List I

List II

- | | |
|--------------------|--|
| (a) Axis of fold | (1) Angle which axis makes with the horizontal plane |
| (b) Plunge of fold | (2) Line drawn parallel to the hinge line of fold |
| (c) Crest | (3) Lowest point in a down arched fold |
| (d) Trough | (4) Highest point in a up arched fold |

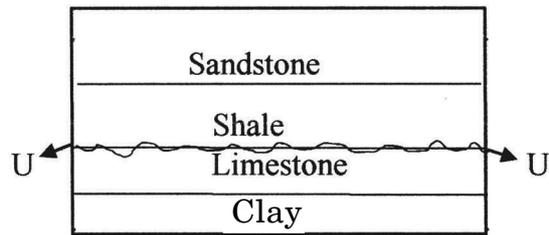
Codes :

- (A) (a)-(2), (b)-(1), (c)-(4), (d)-(3)
- (B) (a)-(1), (b)-(4), (c)-(2), (d)-(3)
- (C) (a)-(3), (b)-(2), (c)-(1), (d)-(4)
- (D) (a)-(4), (b)-(1), (c)-(2), (d)-(3)

4. Reverse fault with very shallow dipping fault planes (< 10 degree) are called 1
- (A) Normal fault
 - (B) Strike-slip fault
 - (C) Dip-slip fault
 - (D) Thrust fault
5. Which of the following is complimentary to the dip ? 1
- (A) Strike
 - (B) Hade
 - (C) Rake
 - (D) Pitch
6. Shortening of the Earth's crust is accommodated by 1
- (A) Folds and Joints
 - (B) Normal and Reverse fault
 - (C) Folds and Reverse fault
 - (D) Folds and Normal fault
7. The main varieties of coal in correct order from low to high carbon content are 1
- (A) Peat, Anthracite, Bituminous, Lignite
 - (B) Anthracite, Bituminous, Lignite, Peat
 - (C) Peat, Lignite, Bituminous, Anthracite
 - (D) Bituminous, Peat, Lignite, Anthracite

8. Choose the *correct* chemical formula for Chalcopyrite..... 1
- (A) CuFeS_2
 - (B) $\text{Cu}_2\text{Co}_3(\text{OH})_2$
 - (C) $\text{CaSO}_4 - 2\text{H}_2\text{O}$
 - (D) $\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$
9. The plunge of a fold means 1
- (A) Inclination of hinge line with horizontal
 - (B) Average inclination of both limbs and horizontal
 - (C) Inclination of fold crest line with horizontal
 - (D) Inclination of fold axis with horizontal
10. If the heave of the fault is zero, then the fault is 1
- (A) High angle fault
 - (B) Low angle fault
 - (C) Horizontal fault
 - (D) Vertical fault
11. Joints which run in a direction that lies between the strike and dip direction of the rock beds, are called 1
- (A) Strike joint
 - (B) Dip joint
 - (C) Oblique joint
 - (D) Bedding joint

12. From the given diagram identify the type of structural feature. 1



- (A) Reverse fault
- (B) Angular unconformity
- (C) Non-conformity
- (D) Disconformity
13. The true dip of a bed is $N25^{\circ}W$, the strike direction of that will be 1
- (A) $N65^{\circ}E$
- (B) $S55^{\circ}E$
- (C) $S65^{\circ}E$
- (D) $N70^{\circ}W$
14. Which of the following indicates an unconformity ? 1
- (A) Sandstone
- (B) Conglomerate
- (C) Shale
- (D) Grit

15. Among the following which mineral occurs as placer deposit ? 1
- (A) Psilomelane
 - (B) Magnetite
 - (C) Bauxite
 - (D) Galena
16. When gravity is the agency involved in placing economic deposits, the deposit is called 1
- (A) Beach placers
 - (B) Alluvial placers
 - (C) Aeolian placers
 - (D) Deluvial placers
17. In Orissa iron ore are located in 1
- (A) Mayurbhanj district
 - (B) Keonjhar district
 - (C) Both (A) and (B)
 - (D) Koraput district
18. Which state has the only diamond mine in the country ? 1
- (A) Kerala
 - (B) Madhya Pradesh
 - (C) Karnataka
 - (D) Bihar

19. Deposits that were formed after the formation of host rocks are called 1
- (A) Placer deposit
 - (B) Epigenetic deposit
 - (C) Metamorphic deposit
 - (D) Syngenetic deposit
20. Which among the following is *not* the essential condition for hydrothermal deposits ? 1
- (A) Highly active fluid
 - (B) Suitable pathways
 - (C) Highly enriched fluid
 - (D) Highly inactive fluids
21. The ore mineral which shows non-metallic lustre is 1
- (A) Hematite
 - (B) Galena
 - (C) Bauxite
 - (D) Magnetite
22. The streak exhibited by a mineral Hematite is 1
- (A) Black
 - (B) Green
 - (C) Cherry red
 - (D) Blue

23. Economically the most important formation of Goa group of rocks is 1
- (A) Vageri formation
 - (B) Sanvordem formation
 - (C) Barcem formation
 - (D) Bicholim formation
24. An ore mineral in oxide form is 1
- (A) Galena
 - (B) Chalcopryrite
 - (C) Psilomelane
 - (D) Pyrite
25. Which of the following would act as a cap rock in case of oil trap ? 1
- (A) Sandstone
 - (B) Laterite
 - (C) Limestone
 - (D) Shale
26. Gash veins are typically seen in 1
- (A) Limestone
 - (B) Laterite
 - (C) Sandstone
 - (D) Granite

27. An example of early formed segregation deposit is 1
- (A) Chromium
 - (B) Titanium
 - (C) Aluminium
 - (D) Laterite
28. Best example of a crystallized ore mineral is 1
- (A) Fluorite
 - (B) Zircon
 - (C) Calcite
 - (D) Galena
29. If an igneous rock consists of quartz in large quantity, the rock could be 1
- (A) Basalt
 - (B) Rhyolite
 - (C) Gabbro
 - (D) Dunite
30. Pearly lustre in phyllite is attributed to the presence of 1
- (A) Orthoclase
 - (B) Muscovite
 - (C) Quartz
 - (D) Olivine

31. Which among the following rocks shows granulose structure ? 1
- (A) Marble
 - (B) Gneiss
 - (C) Chlorite schist
 - (D) Slate
32. A very coarse grained clastic sedimentary rock of varied composition is termed as 1
- (A) Arenaceous rock
 - (B) Argillaceous rock
 - (C) Calcareous rock
 - (D) Rudaceous rock
33. In porphyritic texture the large crystal is termed as 1
- (A) Oikocryst
 - (B) Phenocryst
 - (C) Xenolith
 - (D) Chadocryst
34. Volcanic equivalent of rock gabbro is 1
- (A) Basalt
 - (B) Granite
 - (C) Rhyolite
 - (D) Trachyte
35. Which among the following is not a mafic mineral ? 1
- (A) Amphibole
 - (B) Mica
 - (C) Pyroxene
 - (D) Plagioclase

36. A rudaceous rock with angular clasts from the following is 1
(A) Conglomerate
(B) Sandstone
(C) Granite
(D) Breccia
37. Sedimentary rock likely to be associated with Bauxite is 1
(A) Shale
(B) Laterite
(C) Limestone
(D) Sandstone
38. When granite undergoes contact metamorphism the net result may be 1
(A) Marble
(B) Schist
(C) Gneiss
(D) Phyllite
39. Which of the following best shows the increasing grade of metamorphism ? 1
(A) Shale-schist-slate-phyllite
(B) Schist-slate-phyllite-shale
(C) Shale-slate-phyllite-schist
(D) Phyllite-slate-schist-phyllite
40. If a rock consists of clast of quartz welded together by calcite, the rock would be called as 1
(A) Ferruginous sandstone
(B) Calcareous sandstone
(C) Siliceous sandstone
(D) Shelly limestone

