

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS–UG)

Geology

GEO 6B 22 (E01)—ENVIRONMENTAL GEOLOGY

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer atleast **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall ceiling 24.*

1. Micro ecosystem.
2. BOD.
3. Minamata.
4. Urban heat island effect.
5. Hazard.
6. Regolith.
7. Tsunami.
8. Oil spills.
9. Eutrophication.
10. E waste.
11. Lahars.
12. Pollution.

(8 × 3 = 24 marks)

Turn over

Section B

*Answer atleast **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall ceiling 25.

13. Environmental consequences of mining.
14. Types of pollutants.
15. Urbanisation.
16. Ozone layer depletion.
17. Soil conservation.
18. 4Rs.
19. Radioactive waste disposal.

(5 × 5 = 25 marks)

Section C

*Answer any **one** questions.*

Each question carries 11 marks.

20. Explain water pollution with reference to its causes and effects and its remedial measures.
21. Give an account of green house effect with reference to its causes, impacts and mitigation strategies to reduce Green House effect.

(1 × 11 = 11 marks)

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Geology

GEO6B 19—ECONOMIC GEOLOGY

(2019 Admissions)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A*Answer at least ten questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 30.*

1. Skarn.
2. Syngenetic deposits.
3. Ore.
4. Stockworks.
5. Peat.
6. Placers.
7. Tenor.
8. Phosphorite.
9. Metallogenic province.
10. Bauxite.
11. Epithermal deposits.
12. Siderophile elements.
13. Critical minerals.
14. Gossan.
15. Dissemination.

(10 × 3 = 30 marks)

Turn over

Section C

Answer at least five questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. Metasomatic processes of ore formation.
17. Oxidation and supergene sulfide enrichment.
18. Oil bearing formations of India.
19. Chemical Precipitates.
20. Beach placers of Kerala.
21. Chromite distribution in India.
22. Pb-Zn ores in India.
23. Abrasive minerals.

(5 × 6 = 30 marks)

Section C

Answer any two question.

Each question carries 10 marks.

24. Explain the cavity filling deposits.
25. Describe Batemans classification of economic minerals.
26. Describe the origin, migration and accumulation of Petroleum.
27. Give an account of structural controls of ore localisation.

(2 × 10 = 20 marks)

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Geology

GEO 6B 18—INDIAN GEOLOGY

(2019 Admissions)

Time : Two Hours and a Half

Maximum : 80 Marks

Draw neat sketches wherever necessary.

Section A

Answer at least ten questions.

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 30.

1. Murree series.
2. Ranikot series.
3. Kanawar group.
4. Damuda series.
5. Stromatolites.
6. Talchir Tillites.
7. Muthu Quartzites.
8. Malani volcanics.
9. Peninsular Gneissic Complex.
10. Productus shales.
11. Surma Series.
12. Main Boundary Fault.
13. Karewa Formation.

14. Kurnool series.
15. Aravalli orogeny.

(10 × 3 = 30 marks)

Section B

Answer at least five questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. Sargurs.
17. Deccan traps.
18. Charnockites of South India.
19. Salt range.
20. Triassic of spiti.
21. Quilon formation.
22. Sakoli series.
23. Physiographic divisions of India.

(5 × 6 = 30 marks)

Section C

Answer any two questions.

Each question carries 10 marks.

24. Describe stratigraphy, lithology and distribution of the rocks of Gondwana Super group. Add a note on the Gondwana coal deposits.
25. Write a detailed account on distribution, classification, age and stratigraphy of Siwalik Super group.
26. Give a detailed account on distribution, age, classification and stratigraphy of Cuddappah Super group.
27. Write an essay on structure, stratigraphy, age and distribution of Aravalli Super Group.

(2 × 10 = 20 marks)

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS-UG)

Geology

GEO 6B 17—PALAEOLOGY

(2019 Admissions)

Time : Two and half an Hour

Maximum : 80 Marks

Draw neat sketches wherever necessary.

Section A

Answer atleast ten questions.

Each question carries 3 marks.

All questions can be attended.

Overall ceiling 30.

- 1 Zone fossils.
- 2 Paleoecology.
- 3 Planktonic.
- 4 Inarticulata.
- 5 Irregular echinoids.
- 6 Edentulous.
- 7 Isodont.
- 8 Uniserial graptolites.
- 9 Dimorphism.
- 10 Thorax.
- 11 Peristome.
- 12 Columella.

- 13 Steinkern.
- 14 Deltidium.
- 15 Umbilicus.

(10 × 3 = 30 marks)

Section B

*Answer at least five questions.
Each question carries 6 marks.
All questions can be attended.
Overall ceiling 30.*

- 16 Homotaxis.
- 17 Glossopteris and Gangamopteris.
- 18 Significance of microfossils.
- 19 Classes of brachiopods.
- 20 Methods of fossilisation.
- 21 Moulds and cast.
- 22 Siwalik fossils.
- 23 Evolution of graptolites.

(5 × 6 = 30 marks)

Section C

*Answer any two questions.
Each question carries 10 marks.*

- 24 Give an account of morphology, classification and geologic history of the foraminifera.
- 25 Write an essay on morphological features of Cephalopods. Explain the geological history of cephalopods.
- 26 Write an essay on types and significance of fossils.
- 27 Write an essay on morphological features of Phylum Coelenterata. Explain the geological history of class Anthozoa.

(2 × 10 = 20 marks)

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MARCH 2022

Geology

GLY 6B 24 (E1)—ENVIRONMENTAL GEOLOGY

(2014 to 2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Draw neat sketches wherever necessary.***Part A**

*Answer all ten questions in one word or one sentence each.
Each question carries 1 mark.*

1. A sudden event that causes destruction of lives, properties or both.
2. The science of earthquake studies.
3. Which seismic wave travel not only through the solid part of earth but also through the liquid part of the core?
4. The giant tidal wave formed as a result of an undersea earthquake.
5. The rate of increase of temperature with depth.
6. In which atmospheric zone high concentration of ozone is observed ?
7. The fastest mountain hazard.
8. Potential increase in average global atmospheric temperature resulting from greenhouse effect.
9. A disaster which causes sickness , fatalities in human beings and animals at mass scale due to the contact of bacteria , virus and fungi.
10. What is the scientific term used for referring 'Urulpottal' ?

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

*Answer any ten questions.
Each question carries 2 marks.*

11. Mass wasting.
12. Heat wave.
13. Carbon sink.
14. Thunderstorm.
15. Global warming.

Turn over

16. Structural measures for flood control.
17. Seismograph.
18. Debris flow.
19. Ozone depletion.
20. Nuclear disaster.
21. Impact of sea level rise.
22. Bhopal gas tragedy.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

*Answer any five questions.
Each question carries 6 marks.*

23. Deforestation.
24. Problems related to mining.
25. Geologic hazard.
26. Environmental impact of flood.
27. Biological disaster.
28. Type of waste disposal.
29. Drought mitigation measures.
30. Seismic waves.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

*Answer any two questions.
Each question carries 10 marks.*

31. Earthquake - causes & mechanism. Add a note on the effect of earthquake.
32. Define various types of pollution. Add note on their controlling method.
33. Write an essay on natural disasters. Explain various methods adopted to reduce such disasters.
34. Describe the various types of mass wasting process. Add a note on the causes and mitigation measures.

(2 × 10 = 20 marks)

**SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
MARCH 2022**

Geology

GLY 6B 20—INDIAN MINERAL DEPOSITS

(2014—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Draw neat sketches wherever necessary.

Part A

*Answer all **ten** questions in one word **or** one sentence each.*

Each question carries 1 mark.

1. The largest barite deposits in India is located at _____ region.
2. The composition of argentite is _____.
3. What is fireclay ?
4. A most common telluride of gold is _____.
5. _____ deposits of Kerala are widely used for the extraction of thorium.
6. _____ is a porous and lightweight material used in abrasive industry.
7. The composition of zircon is _____.
8. Name the oldest oil well in India.
9. The ration of fixed carbon to the volatile matter in coal is known as _____.
10. The Jaduguda region in the state of Jharkhand is famous for _____ deposits.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

*Answer any **ten** questions.*

Each question carries 2 marks.

11. Classification and uses of Asbestos.
12. Sillimanite group of minerals.

Turn over

13. Pyrophyllites.
14. Gossan.
15. Uses of Gypsum.
16. Essential minerals.
17. Gondite.
18. Mode of occurrence of copper in India.
19. Stratigraphic traps.
20. Nellore mica belt.
21. Champion lode.
22. Abrasive sand.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

Answer any five questions.

Each question carries 6 marks.

23. Significance of mineral deposits in national economy.
24. Strategic and critical minerals.
25. Ceramic minerals.
26. Origin and distribution of coals in India.
27. Types and major gemstones provinces of India.
28. Physical properties and mode of occurrence of chromite deposits.
29. Radioactive minerals.
30. Lead-Zinc deposits in India.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

Answer any two questions.

Each question carries 10 marks.

31. Give a detailed account on the composition, uses and origin of petroleum with special reference to the oil fields of India.
32. Describe the physical properties, chemical composition, uses and mode of occurrence, and distribution of major Iron ores in India.
33. What are the major mineral deposits of Kerala ? Add notes on their geographical distribution, mode of occurrences and uses.
34. Give an account of physical properties, chemical composition, and mode of occurrence, uses and distribution of Aluminum ores in India.

(2 × 10 = 20 marks)

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MARCH 2022

Geology

GLY 6B 19—ORE FORMING PROCESSES

(2014 to 2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Draw neat sketches wherever necessary.***Part A**

*Answer all ten questions in one word or one sentence each.
Each question carries 1 mark.*

1. The process of formation of Bauxite.
2. The industry in which Kaolin finds major use.
3. The deposit formed at the same time as the rock which enclose them.
4. The non-valuable portion of an ore.
5. An important product of sublimation.
6. The unfilled portion of a fissure vein.
7. A typical placer deposit of Kerala coast.
8. High temperature hydrothermal deposit that occur nearer to the intrusive.
9. The process of formation of Kyanite deposit.
10. An ore mineral of Thorium extracted from the beach placers of Kerala.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

*Answer any ten questions.
Each question carries 2 marks.*

11. Primary Minerals.
12. Evaporates.
13. Tenor.
14. Metasomatism.
15. Gangue Minerals.
16. Gossan.
17. Stockworks.

Turn over

18. Fissure Vein Deposit.
19. Ladder Vein.
20. Metallogenic Period.
21. Sublimation.
22. Shear Zone Mineralization.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

*Answer any five questions.
Each question carries 6 marks.*

23. Geologic Thermometer.
24. Residual Concentration.
25. Manganese Deposits.
26. Metallogenic Epoch in India.
27. Gemstones.
28. Geochemical Distributions of Elements.
29. Wall Rock Alteration.
30. Lindgren's Classification of Ore Deposit.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

*Answer any two questions.
Each question carries 10 marks.*

31. Write an essay on the formation of mineral deposits by internal process.
32. What are the different hydrothermal processes of ore formation.
33. Explain process and product of supergene sulphide enrichment.
34. Give an outline of the process of formation of magmatic ore deposit.

(2 × 10 = 20 marks)

SIXTH SEMESTER (CUCBCSS-UG) DEGREE EXAMINATION, MARCH 2022

Geology

GLY 6B 18—PALAEOLOGY

(2014 to 2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A*Answer all ten questions in one word or one sentence each.*

1. A fossil trilobite without eyes.
2. Who proposed the principle of faunal succession ?
3. Process of fossilization in graptolites.
4. Name the outer layer of the body of coelenterate.
5. Age of fishes.
6. The phylum to which Turritella belongs.
7. Extinction of dinosaurs occurred during _____ million years back.
8. The phylum to which Cidaris belongs.
9. An example for lower Gondwana plant fossil.
10. A trilobite index fossil for lower Cambrian.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)*Answer any ten questions.*

11. Holotype.
12. Hinge line.
13. Columella.

Turn over

14. Protoconch.
15. Opisthoparian.
16. Madreporite.
17. Petrification.
18. Dimorphism in foraminifera.
19. Lepidodendron.
20. Delthyrium.
21. Benthic and planktonic organism.
22. Calyx.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

Answer any five questions.

23. Dental patterns in class Pelecypoda.
24. Classification of animals.
25. Geological history of echinoids.
26. Ammonitic suture lines.
27. Septa in corals.
28. Suture line patterns of cephalopod.
29. Micro-fossils.
30. Index fossils with examples.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

Answer any two questions.

31. Describe the morphological features, evolutionary development and stratigraphic distribution and significance of brachiopods.

32. Describe the morphological features, evolutionary development and stratigraphic distribution and significance of trilobites.
33. Give an account of the uses of fossils in stratigraphy, paleogeography, evolutionary studies and economic geology.
34. Define the term fossil. Describe the various types of fossils and the methods of fossilization.

CHMK LIBRARY UNIVERSITY OF CALICUT

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MARCH 2022

Geology

GLY 6B 17—STRUCTURAL GEOLOGY AND GEOTECTONICS

(2014 to 2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

*Draw neat sketches wherever necessary.***Part A***Answer all ten questions in one word or one sentence each.**Each question carries 1 mark.*

1. Faults which are parallel and overlapping each other.
2. The plate margin in which Benioff Zone is located.
3. The difference between the maximum and minimum elevation of a place.
4. The type of solid material in which plastic flow is minimum.
5. A fold that dips in all directions.
6. A block caught along a normal fault.
7. Depth of ocean trenches.
8. The type of mountain represented by the Western Ghats.
9. The ocean that surrounded the Pangaea.
10. An unconformity in which the older rocks are of igneous origin.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)*Answer any ten questions.**Each question carries 2 marks.*

11. Nappe.
12. Isoclinal folds.
13. Disconformity.
14. Inlier.
15. Plunge and pitch.
16. Horst.
17. Mantle plume.

Turn over

18. Island Arcs.
19. Lineament.
20. Stress ellipsoid.
21. Strike-slip fault.
22. Craton.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

*Answer any five questions.
Each question carries 6 marks.*

23. Rule of V's and outcrop patterns.
24. Geological maps.
25. Classification of folds based on attitude of axial plane.
26. Recognition of faults in the field using geomorphological features.
27. Palaeomagnetism.
28. Layering of the mantle.
29. Foliations.
30. Overlaps and offlaps.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

*Answer any two questions.
Each question carries 10 marks.*

31. Give an account of the geomorphological features associated with convergent and divergent plate margins.
32. Give an account of the classification of joints; add a note on their geological significance.
33. Describe the different stages of rock deformation.
34. Describe the continental drift hypothesis. Add a note on sea floor spreading.

(2 × 10 = 20 marks)