F–7127

Sub. Code
7BGE2C1

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Second Semester

Geology

PALAEONTOLOGY AND GENERAL STRATIGRAPHY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Morphology of Lamellibranches.

2. Define index fossil.

3. Classification of plant kingdom.

4. What is age of Echinoids?

5. Write names of few anthozoans.

6. Write the name of Brachiopods having straight hinge line.

7. Define Protozoan's.

8. What is Ptillophyllum?

9. What are various stratigraphic classifications?

10. What is correlation?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Compare and contrast Turritella and Turrilites.

Or

(b) Write a brief note on migration of fauna.

12. (a) Write a short note on the Phylum Hemichordata.

Or

(b) Write note on the Glossopteries and Gangamopteries.

13. (a) Write a short note on Ceolenterata.

Or

(b) Describe the morphology of following :

(i) Arca

(ii) Rhynconella.

14. (a) Give an account of the Phylum Porifera.

Or

(b) Give a account on Textularia and Nummulites.

15. (a) Write an account of Homotaxis.

Or

(b) Give a brief account of Geological time scale.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an elaborate note on Brachipods.

17. Give a detail account on morphology and geological history of Trilobita.

18. Enumerate in detail about Phylum Echinodermata.

19. Write an essay on general morphology, classification, geological history and stratigraphic significance of Foraminifera.

20. Write in detail about stratigraphic principles.

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F–7130	Sub. Code
	7BGE4C1

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

Geology

INDIAN STRATIGRAPHY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Mention the geological age of the Aravalli Supergroup.

2. Name the economic mineral associated with the Sausar Series of Nagpur-Chhindwara belt.

3. Mention the significance of Eparchaean unconformity.

4. What is Wajrakarur famous for?

5. List out any two Lower Gondwana plant fossils.

6. What is the age of Umaria marine beds?

7. Mention the geological age of the Umia plant beds.

8. Name the Stage of the Cretaceous of Trichinopoly with which dinosaurian remains have reported.

9. What are intratrappeans?

10. Mention the geological age of the Barail Series of Assam.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Give an outline on Peninsular Gneiss.

Or

(b) Give a short account on the mineral wealth of the Dharwars.

12. (a) Write a short note on the rocks of Delhi System.

Or

(b) Describe the stratigraphy of Railo Series.

13. (a) Give a brief outline on the subdivisions of the Lower Triassic rocks of Spiti.

Or

(b) Write short notes on the Jurassic System of Kashmir.

14. (a) Describe the salient features of the Talchir Series

Or

(b) Give an outline on the subdivisions and the fossils of the Cretaceous of Trichinopoly.

15. (a) Discuss about the Karewa Series.

Or

(b) Write short notes on Warkala beds.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on the physiographic divisions of India.

17. Explain in detail the stratigraphy and economic importance of Vindhyan System.

18. Discuss about the age of the Saline Series.

19. Elaborate on the stratigraphic subdivisions of the Jurassic of Kutch.

20. Write an essay on the salient features of the subdivisions of the Deccan traps.

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F–7131

Sub. Code
7BGE4C2

B.Sc. DEGREE EXAMINATION, APRIL 2022

Fourth Semester

Geology

STRUCTURAL GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Distinguish between true dip and apparent dip.
2. What is a contour?
3. What is axial plane?
4. Distinguish between syncline and anticline.
5. What is a reverse fault?
6. What is a fault trace?
7. What is a nappe?
8. What is meant by klippe?
9. What is off lap?
10. Define nonconformity.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the attitude of planes.

Or

(b) Explain the rule of 'V'.

12. (a) Write a brief account on the types of stress.

Or

(b) Describe the criteria for the recognition of fold in field.

13. (a) Write a short account on the genetic classification of fault

Or

(b) Write short notes on fault terminology.

14. (a) Discuss about of repetition of outcrops due to erosion, folding and faulting.

Or

(b) Write notes on inliers and outliers.

15. (a) Distinguish unconformities from faults.

Or

(b) Describe the criteria for recognition of unconformity in field.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe the methods of representing physiographic features in a map with diagrams.

17. Write an essay on the classification of folds.

18. Describe the criteria for the recognition of fault in field and in map.

19. Write an account on the geometric and genetic classification of joints.

20. Describe the parts and functions of Brunton compass.

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F–7135	Sub. Code
	7BGE6C1

B.Sc. DEGREE EXAMINATION, APRIL – 2022

Sixth Semester

Geology

ECONOMIC GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What are gangue minerals?

2. What is a residual ore deposit? Give an example.

3. List out the controlling factors for localization of economic minerals.

4. Define geological thermometer.

5. What is the chemical composition of rutile?

6. Which ore mineral is also known as 'fools gold'?

7. Name any two minerals used as raw materials in the manufacture of fertilizers.

8. What is realgar? Mention its use.

9. Mention the any two places in India where lignite deposits are found.

10. Mention any two places in Tamil Nadu where crystalline limestones are exploited.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Describe the process of sublimation.

Or

(b) Discuss briefly about the process of evaporation and its role in the formation of economic mineral deposits.

12. (a) Write short notes on metallogenic epochs and provinces.

Or

(b) Discuss about geologic thermometers.

13. (a) Discuss about the mode of occurrences and distribution of gold deposits in India.

Or

(b) Describe the distribution of lead and zinc ores in India.

14. (a) Give an outline on abrasive minerals.

Or

(b) Write a short note on the distribution of gemstones in India.

15. (a) Give an outline on the classification of coal.

Or

(b) Discuss about the distribution of petroleum deposits in India.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Elucidate on the process of magmatic concentration and its role in the formation of ores.

17. Discuss in detail about the salient features of Bateman's classification.

18. Write an account on iron ore deposits in India.

19. Write an essay on the minerals used in cement industry.

20. Give a detailed account on the mineral wealth of Tamil Nadu.

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F–7136	Sub. Code
	7BGE6C2

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Sixth Semester

Geology

REGIONAL GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Name the mineral assemblages which are key markers of the Sathyamangalam Group

2. Mention the geological age of the rocks of the Sathyamanagalam Group

3. What is the geological age of Oddanchatram anorthosites?

4. Mention a location in Tamil Nadu where alkaline magmatism is recorded in the form of several syen ite-ca rbonatite bodies

5. Mention the geological age of Sriperumpudur formation

6. What are the typical rocks present in Talchir formation?

7. Mention any two places where laterite deposits of Mio-Pliocene age occur in Tamil Nadu

8. Mention any two places where Teri sands are found

9. Name a place in Tamil Nadu which is well known for its graphite deposits

10. Mention the name given to the green gem variety of beryl

Part B $(5 \times 5 = 25)$

Answer **all** questions, choosing either (a) or (b).

11. (a) Write short notes on the major faults and shear zones of Tamil Nadu.

Or

(b) Give an outline on the tectonics of Tamil Nadu.

12. (a) Describe briefly about the Oddanchatram anorthosite complex.

Or

(b) Give an outline on cordierite-sillimanite rocks of Madurai

13. (a) Give an outline on Talchir formation of Palar basin

Or

(b) Give an outline on Mesozoic formation of Sivaganga.

14. (a) Elaborate on Cuddalore sandstone formation.

Or

(b) Write short notes on the sand dunes of Kambam valley.

15. (a) Write an account on distribution of precious and semi-precious stones of Tamil Nadu.

Or

(b) Give a short account on the bauxite deposits of Shevaroy hills.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Give an account on Sathyamangalam Group of Central and NW Tamil Nadu.

17. Discuss about the geological aspects of the granites of central and southern Tamil Nadu.

18. Write an essay on marine Cretaceous formations of Tamil Nadu.

19. Describe the geological aspects of the Teri sands of Southern Tamil Nadu.

20. Write an essay on the iron ore deposits of Kanjamalai.

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F–7137

Sub. Code
7BGEE3A

B.Sc. DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Geology

Elective – PHOTOGEOLOGY, REMOTE SENSING, GIS AND MINING GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Distinguish between overlap and sidelap.

2. Define parallax.

3. Define lineament.

4. What is meant by photointerpretation?

5. List out any five Indian Remote Sensing satellites.

6. What is meant by atmospheric window?

7. Define raster data.

8. Define topology.

9. What is meant by cutoff grade?

10. Define gangue.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write a short note on annotation of aerial photograph.

Or

(b) Give an account on factors affecting vertical exaggeration.

12. (a) Write short notes on photo interpretation elements.

Or

(b) Describe the procedure for interpreting vegetation in different types of aerial photos.

13. (a) Elaborate on Remote Sensing platforms.

Or

(b) Discuss about the interaction of electromagnetic energy interaction with Earth's surface features.

14. (a) Write short notes on the application of GIS.

Or

(b) Discuss briefly about Global Positioning System.

15. (a) Define the following terms:

(i) Ore

(ii) Hanging wall

(iii) Grade

(iv) Tenor

(v) Assay value.

Or

(b) Bring out the problems encountered during mining operations.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe the flight planning procedure.

17. Elaborate on the application of aerial photographs in groundwater exploration.

18. Elaborate on the interaction of electromagnetic energy with Earth's atmosphere.

19. Give detailed account on mapping concepts and coordinate systems.

20. Explain in detail about mining methods.

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