F–4603

Sub. Code
7BGE6C1

B.Sc DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations

Sixth Semester

Geology

ECONOMIC GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. What is Sublimation?
2. Name Two evaporate deposits.
3. Give examples for stratigraphically controlled ore.
4. What is geological thermometer?
5. Name two precious metals.
6. List out the radio active minerals.
7. Name two ceramic minerals.
8. Name two gem stones available in TamilNadu.
9. Name the coal locations in India.
10. List the Iron ore locations in Tamil Nadu.

Part B (5 × 5 = 25)

Answer **all** the questions

11. (a) Write a short note on evaporation process.

Or

(b) Discuss about the supergene enrichment processes.

12. (a) Describe the Bateman's classification of mineral deposits.

Or

(b) Write short notes on controls of ore localization.

13. Describe the physical properties, chem. composition and mode of occurrences of

(a) (i) Chromium,
(ii) Uranium

Or

(b) (i) Aluminium,

(ii) Copper.

14. Write the diagnostic physical properties, uses, modes of occurrence and distribution in India of the following industrial minerals

(a) (i) Cement

(ii) Glass

Or

(b) (i) Paint

(ii) Fertilizer.

15. (a) Write short notes on the distribution of Lignite in India.

Or

(b) Give an account on petroleum basins in India.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Explain the magmatic process of ore formation with neat sketches.

17. Write an essay on the classification of ore deposits.

18. Narrate the history of Iron ores in India.

19. Discuss about the Structural stones and gem stones of Tamilnadu.

20. Write an essay on Mineral wealth of Tamilnadu.

———————

F–4604

Sub. Code
7BGE6C2

B.Sc DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Sixth Semester

Geology

REGIONAL GEOLOGY

(CBCS – 2017 onwards)

Time : Three Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define the Tectonic activity.
2. Define the Sathyamangalam group.
3. Write short notes on Kadavur basin.
4. Define Migmatic complex.
5. Write notes on Talchir formation.
6. Write short notes on Virudhachalam sub-basin.
7. Define Cuddalore sandstone.
8. Write notes on Kambam valley.
9. Define PGE.
10. Write notes on precious stones.

Part B (5 × 5 = 25)

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

11. (a) Define folds and folds in India.

Or

(b) Write notes on central India.

12. (a) Write notes on Kondalite group of Trichy regions.

Or

(b) Explain the Migmatite complex in India.

13. (a) Write notes on upper Gondwana rocks of Tarani.

Or

(b) Detailed notes on Virudhachalam and Pondicherry sub-basic.

14. (a) Write notes on Pliestocene rocks of Tamil Nadu.

Or

(b) Detailed notes on Laterite deposits of Eocene in South India.

15. (a) Write notes on Magnesite deposits of Eocene in Chalk hills.

Or

(b) Explain the Sivaganga's Graphite beds.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Briefly discuss about the Faults and lineaments of Tamil Nadu.

17. Write notes on peninsular gneissic complex.

18. Detailed notes on Cretaceous of Trichirapalli.

19. Brief notes on Quaternary sediments in Tamil Nadu.

20. Brief notes on beach placers in Tamil Nadu.

———————

F–4605

Sub. Code
7BGEE3A

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

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. Define overlap.
2. What are panchromatic aerial photographs?
3. Define photo tone.
4. Define lineament.
5. Mention the wavelength range of the visible portion of the electromagnetic spectrum.
6. Define atmospheric scattering.
7. Define topology
8. Expand - GPS
9. What is tenor of ore?
10. Define winze.

Part B (5 × 5 = 25)

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

11. (a) Describe the causes for scale variation in aerial photographs.

Or

(b) Write short notes on the types of mosaics.

12. (a) Give a brief account on photo interpretation elements.

Or

(b) Discuss the procedure for the analysis of vegetation from aerial photographs.

13. (a) Describe the components of electromagnetic spectrum with suitable sketch.

Or

(b) Write short notes on EMR interaction with Earth surface features.

14. (a) Give an account on raster and vector data.

Or

(b) Elaborate on the hardware and software pertaining to GIS.

15. (a) Write short notes on strategic, critical and essential minerals.

Or

(b) Describe the salient features of various mining methods.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on the types of aerial photographs.

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

18. Discuss the salient features of Indian Remote Sensing satellites.

19. Describe the components of GIS in detail.

20. Discuss about National Mineral Policy.

———————

F–5088

Sub. Code
7BGE3C1

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Third Semester

Geology

CRYSTALLOGRAPHY AND OPTICAL MINERALOGY

(CBCS – 2017 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define the Cry stalling.
2. Define the Hemimorphic Forms.
3. Write short notes on Symmetry Elements of Crystal System.
4. Write short notes on Hexagonal System.
5. Describe the Normal class of Orthorhombic system.
6. Define Twinning.
7. Define Polarization.
8. Write notes on double Refraction.
9. Describe of Isotrophic Minerals.
10. Write short notes Interference Colour.

Part B (5 × 5 = 25)

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

11. (a) Briefly discuss about the Morphological Characteristic of a crystal.

Or

(b) Write short notes on Classification of Crystal System.

12. (a) Write short notes on Symmetry elements of Hemimorphic class

Or

(b) Discuss about the Symmetry Elements and Forms of a Cassiterite.

13. (a) Write notes on Symmetry Elements and Form of Olivine

Or

(b) Discusses about Laws of Twinning

14. (a) Write notes on Quartz Wedge & Gypsum Plate

Or

(b) Discuss about the Polarization of Light

15. (a) Write notes on Uniaxial minerals

Or

(b) Write notes on Biaxial minerals.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Give a brief notes on symmetry elements from of the normal Class of Cubic System.

17. Give an account on Symmetry Elements and Forms of Normal Class of Monoclinic and Triclinic System.

18. A brief account of Twinning and its types.

19. Detailed notes on Petrological Microscope.

20. Mineral properties under microscope.

———————

F–5236

Sub. Code
7BGE1C1

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

First Semester

Geology

DYNAMIC GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Name the planet of our Solar System which has the least density.

2. Name the largest and smallest planets of our Solar System.

3. What is a dormant volcano?

4. Name any two applications of C-14 method of dating.

5. What is a Richter scale?

6. Distinguish between Sial and Sima.

7. Define isostasy.

8. Define orogeny.

9. What is a plate boundary?

10. What are submarine canyons?

Part B (5 × 5 = 25)

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

11. (a) Describe the important characteristics of the outer planets.

Or

(b) Write short notes on Nebular hypothesis including their merits and demerits.

12. (a) Give a brief account on dating methods.

Or

(b) Discuss about the products of volcanic eruption.

13. (a) Give an outline on Earth's interior.

Or

(b) Write short notes on the distribution of earthquakes.

14. (a) Give an account on Pratt's theory of isostasy.

Or

(b) Elaborate on the mountain chains of the world.

15. (a) Write short notes on the theory of sea floor spreading.

Or

(b) Describe the evidences put forth in favour of continental drift theory.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe the Earth as a member of the Solar System.

17. Elaborate on the types of volcanic eruption.

18. Discuss the effects of earthquakes.

19. Write short notes on the classification of mountains.

20. Discuss about the relief features of continents and ocean basins.

———————

F–5237	Sub. Code
	7BGE1C2

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

First Semester

Geology

GEOMORPHOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Distinguish between degradation and aggradations.

2. List any four geomorphological agents.

3. What is ionosphere?

4. Define piezometric surface.

5. Explain the snowline.

6. Distinguish between zone of ablation and zone of accumulation.

7. What are rapids?

8. Define base level of erosion.

9. What is tombolo?

10. Give examples for shorelines of emergence.

Part B (5 × 5 = 25)

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

11. (a) Write a brief account on mass wasting.

Or

(b) Classify the relief features.

12. (a) Describe any five landforms produced by wind.

Or

(b) Write a note on the composition of atmosphere.

13. (a) Write a short note on glacial landforms.

Or

(b) Write a short note on the types of glaciers.

14. (a) Explain the stream rejuvenation.

Or

(b) How a river valley is developed?

15. (a) How waves and tides are caused?

Or

(b) Write a short note on mid oceanic ridges.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Describe the processes of weathering and its products.

17. Describe the features of Karst landforms and process of formation behind it.

18. Explain the causes of glaciations. Add a note on glacial epochs.

19. Describe the landforms produced by fluvial processes.

20. Discuss the origin and types of coral reefs.

———————

F–5238

Sub. Code
7BGE2C1

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

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. Define permineralization.
2. What are Trace fossils?
3. What is Columella?
4. What is Peristome.
5. Define pedicle valve.
6. What is monomyarian.
7. What is Gonatoparian?
8. What is suture line?
9. Define Era.
10. What is the geological age range of Cretaceous.

Part B (5 × 5 = 25)

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

11. (a) Give a brief account on index fossil with examples.

Or

(b) Write short note on foraminifera.

12. (a) Describe the general environmental conditions of Corals.

Or

(b) Write a short account on Cidaris.

13. (a) Write about the general morphology Pelecypods.

Or

(b) Write short note on Beleminites.

14. (a) Explain briefly about Calamene with neat sketch.

Or

(b) Describe the general morphological characters and geological range of Ptillophyllum.

15. (a) Write short note on laws of stratigraphy.

Or

(b) Explain Corellation with examples.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Discuss about the preservation, applications and uses of microfossils.

17. Explain in detail about the general morphology, classification and geological history of Phylum Echinodermata.

18. Write an detailed essay about Phylum Mollusca.

19. Discuss the morphology, classification and geological history of Trilobites.

20. Write a detail account on Geological Time Scale with sketches and examples.

———————

F–5240	Sub. Code
	7BGE4C1

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Fourth Semester

Geology

INDIAN STRATIGRAPHY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Write short note on distribution of Archaean rock rocks in India.
2. Describe Lower Dharwar.
3. Write stratigraphic successions of the VindhyanSupergroup.
4. Define structure of the Cuddapah Basin.
5. Explain Salt ranges.
6. Give a short note on Permocarboniferous deposits in India.
7. Discuss the Talchir Group.
8. Write short notes on Jurassic of Kutch.
9. Define Deccan trap.
10. Define Infra-trappeans.

Part B (5 × 5 = 25)

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

11. (a) Write a short account on Economic importance of Archaean.

Or

(b) Explain the economic importance of Dharwar..

12. (a) Describe stratigraphic classification of the Vindhyan System.

Or

(b) Give a brief account of the economic importance of the Cuddapah System.

13. (a) Write detailed note on Age of Saline series.

Or

(b) Describe lithostratigraphic classification of Triassic of Spiti.

14. (a) Write brief essay on division, structure, climate and condition Gondwanasupergroup.

Or

(b) Describe the lithostratigraphic classification Triassic of Kutch.

15. (a) Give detailed account on Intra and Infra Trappean beds in India.

Or

(b) Explain the rise of Himalayas.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Give a detailed account on Physiographic divisions of India.

17. Write an essay on Cuddapah super group.

18. Give a detailed account on Cambrian salt ranges.

19. Write an essay on Cretaceous of Tiruchirapalli.

20. Give a detailed note on Siwalik System and Karewa Series.

———————

F–5241	Sub. Code
	7BGE4C2

B.Sc. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Fourth Semester

Geology

STRUCTURAL GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is a contour line?
2. Give examples for choropleth and isopleth maps.
3. Distinguish between syncline and anticline.
4. What is a plunging fold?
5. Explain heave of a fault.
6. How horst and graben are formed?
7. What is a fenster?
8. Define joint system.
9. List the uses of Brunton compass.
10. What is nonconformity?

Part B (5 × 5 = 25)

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

11. (a) Explain the trend and plunge of the outcrops.

Or

(b) Explain the strike and dip of the outcrops.

12. (a) Write a brief note on the types of stresses.

Or

(b) Explain the criteria for the recognition of fold in the field and map.

13. (a) How the faults are classified on the basis of genesis?

Or

(b) How the faults are classified on the basis of geometry?

14. (a) Outline the genetic classification of joints.

Or

(b) Outline the geometric classification of joints.

15. (a) Draw and label the parts of Brunton compass.

Or

(b) Explain off lap and overlap.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Write an account on the methods of representing physiographic and topographic features in a map.

17. Write an essay on the classification of folds with neat sketches.

18. Describe the parts of a fault with neat sketches.

19. Explain the relation of joints to folding and faulting structures.

20. Write an essay on the types of unconformities with neat sketch.

———————