S–2738

Sub. Code
23BGE1C1

B.Sc. DEGREE EXAMINATION, APRIL 2024

First Semester

Geology

GENERAL GEOLOGY

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is meant by Zone of Aeration?
2. List out the Major mountains in India.
3. Write a note on 'Isoseismal lines'.
4. Explain is Hot Springs, with example.
5. List out the Plate boundary in the world.
6. State 'Tides' and its type.
7. Explain Love waves with a diagram.
8. How are River terraces formed?
9. Define 'Radial drainage pattern'.
10. Explain Cascades with example.

Part B (5 × 5 = 25)

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

11. (a) Give notes on types of Volcanic eruption.

Or

(b) Explain types of Seismic waves.

12. (a) Give a brief note on Origin of Tectonic Mountains.

Or

(b) What is the concept and evidence of continental drift?

13. (a) Explain sand dunes and their types.

Or

(b) What are types of springs?

14. (a) Describe drainage system.

Or

(b) Define :

(i) River capture,

(ii) River meandering,

(iii) Stream rejuvenation,

(iv) River terraces,

(v) Braided Stream.

15. (a) Define : Waves, Tides, Ocean Currents, Shoreline, Lakes.

Or

(b) Describe origin of coral reefs and its types.

Part C $(3 \times 10 = 30)$

Answer any **three** questions.

16. Describe the concept of Airy's and Pratt's theories and mechanism of plate motion.

17. Write an essay on Earthquake.

18. Describe Geological work and landforms produced by the Aeolian process.

19. Explain Geological work and landforms produced by the Glacial process.

20. Describe origin and classification of Shorelines and lakes.

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S–2739

Sub. Code
23BGE1C2

B.Sc. DEGREE EXAMINATION, APRIL 2024.

First Semester

Geology

GEOSTATISTICS

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define : Frequency Distribution.

2. What are ogives?

3. What is mode?

4. Define : Population and Sample.

5. What is symmetrical distribution?

6. What is positive (right) skew?

7. Define the method of Least Squares.

8. What is the minimax problem?

9. Define correlation.

10. Define open interval.

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Discuss on applications of numerical data analysis Geology.

Or

(b) Discuss in detail on the application of histogram with an example.

12. (a) Explain the impact of shape of distribution on measures of central tendency.

Or

(b) Explain in detail on skewed distributions with an example.

13. (a) Write in detail about the merits of standard deviation.

Or

(b) Write in detail about the merits of mean deviation.

14. (a) Discuss the demerits of method of least square.

Or

(b) Explain the linear least squares.

15. (a) Explain the principle of correlation.

Or

(b) Explain the merits and demerits of rank correlation.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Give a brief account on pie and histograms with examples.

17. Discuss elaborately on how to calculate frequency distribution and measures of central tendency.

18. Write elaborately on mean deviation.

19. State the equation of the parabola $y = ax \wedge 2 + bx + c$.

20. Describe Regression equation and their properties.

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S–2740

Sub. Code
23BGE1S1

B.Sc. DEGREE EXAMINATION, APRIL 2024

First Semester

Geology

UNDERSTANDING THE EARTH

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define 'Planetoid' and give some examples.
2. What is a Geomagnetic field?
3. Write a note on 'Spreading Centre'.
4. How are the Island arcs formed?
5. Difference between Weather and climate.
6. State 'Astronomy and its types'.
7. Explain Coriolis Force and its effects.
8. What are the elements present on Earth?
9. Explain 'Superior Plants'.
10. What is meant by Geochemical cycle?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Give a brief note on Terrestrial and Superior Plants.

Or

(b) Explain Meteoroids: origin, mass, density, rotation and revolution.

12. (a) Define external structures of earth with diagrams.

Or

(b) What is meant by Earth's Magnetic field?

13. (a) Describe Wave erosion and beach processes in atmospheric circulation.

Or

(b) What is meant by land-air-sea interaction and oceanic current system?

14. (a) Define Earthquake: Seismology, seismic waves, seismograph, Mercalli scale of earthquake intensities.

Or

(b) Describe the concept of Plate tectonics.

15. (a) Explain the Geochemical cycle and behaviors of major elements.

Or

(b) What is the chemical differentiation and composition of the earth?

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Write an essay on the Internal structures of earth.

17. Brief note on Volcanoes and its types.

18. Describe seafloor spreading concept with neat sketches.

19. Explain the concept of 'Eustasy'.

20. Describe Earth's : origin, size, shape, mass, density, rotation and revolution and its age.

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S–2741	Sub. Code
	23BGE1FC

B.Sc. DEGREE EXAMINATION, APRIL 2024.

First Semester

Geology

FUNDAMENTALS OF GEOLOGY

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define 'Biosphere'.

2. What is the chemical composition of Mantle?

3. What is 'Conrad Discontinuity'?

4. What is meant by radioactive dating?

5. Explain Aggradation with a diagram.

6. Define 'Rayleigh Waves'.

7. Explain parts of Earth with a diagram.

8. Definition for 'Swift planet'.

9. Define 'Biological weathering'.

10. List out the Continents in the World.

Part B (5 × 5 = 25)

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

11. (a) Give notes on inner and Outer planets of the Solar System.

Or

(b) Explain Merits and Demerits of Tidal and Dust cloud Hypothesis.

12. (a) Give a brief note on Crust and Mantle.

Or

(b) Write a short note on Weichert-Gutenberg and Mohorovicic Discountinuity.

13. (a) Explain Geomorphic Process.

Or

(b) Describe Weathering and its types.

14. (a) Describe Lithosphere and Hydrosphere.

Or

(b) Explain Stratosphere, Troposphere, Thermosphere and Mesosphere.

15. (a) Describe Continents, its types and their distribution.

Or

(b) Describe Oceanic basins and their distribution.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Describe the concept of dust cloud Hypothesis.

17. Describe Outline of Radioactive and other methods of dating.

18. Describe about classification of relief orders.

19. Explain Brief notes on Mass Wasting.

20. Definition for

    (a) Continental Margin

    (b) Continental Shelf

    (c) Continental Rise

    (d) Abyssal Plain

    (e) Submarine canyons

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S–2742	Sub. Code 23BGE2C1

B.Sc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Geology

PALAEONTOLOGY

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is palaeontology?
2. Define index fossil.
3. Define the geological history of Crinoidea.
4. Define the scientific classification of Anthozoa.
5. List out the fossils in gastropoda.
6. Define the shell morphology of Brachiopoda.
7. What is the geological history of Gondwana flora?
8. Define thorax.
9. What is the age of ornithistian dinosaurs?
10. Define the archaeopteryx.

Part B (5 × 5 = 25)

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

11. (a) Explain the types of fossil.

Or

(b) Describe the morphology of sponges.

12. (a) Describe the morphology of Anthozoa.

Or

(b) Differentiate regular echinoidea and irregular echinoidea.

13. (a) Explain the classification and geological history of brachiopoda.

Or

(b) Explain the coiling pattern in gasteropoda with example.

14. (a) Describe the facial suture of trilobites.

Or

(b) Brief note on upper Gondwana flora and its geological history.

15. (a) Write a note on Saurischian dinosaur and its geological history.

Or

(b) Describe Archaeopteryx.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Describe the modes of preservation of fossil.

17. Describe morphology, classification and geological history of class Echinoidea.

18. Describe morphology, classification and geological history of Pelecypoda.

19. Give an account on Gondwana flora.

20. Discuss in detail about Dinosaurs.

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S–2743	Sub. Code
	23BGE2S1

B.Sc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Geology

BASICS OF EARTH SCIENCES

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Name any two theories explaining the evolution of Earth.
2. What are the outer planets of Solar system?
3. Define satellites.
4. Define atmosphere
5. What is radioactivity?
6. What is the composition of the Earth crust?
7. Define fold.
8. List out the geological action of wind.
9. Define paleontology.
10. What is fossilization?

Part B (5 × 5 = 25)

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

11. (a) What are the characteristics of Solar system?

Or

(b) Write a short note on the evolution of universe.

12. (a) Differentiate between asteroids and meteors.

Or

(b) Explain the concept of solstice and equinox.

13. (a) Give an account on the old methods to determine the age of the Earth.

Or

(b) Describe about the discontinuities of the earth.

14. (a) Explain in detail about the geological action of wind.

Or

(b) Write a short notes on fault and its types.

15. (a) Write a short account on Vertebrate and Invertebrate fossils.

Or

(b) Describe about the mode of preservation of fossils.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Describe the origin of the Earth.

17. Explain the Earth's rotation and revolution movement in detail.

18. Explain the concept of radioactivity and its role in radiometric dating.

19. Discuss in detail about the theories of plate tectonics.

20. Describe about the applications of fossils.

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S–2744	Sub. Code
	23BGE2S2

B.Sc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Geology

STRATIGRAPHY

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is chronostratigraphy?
2. Define Indo-Gangetic plain.
3. Define the structure of vindhyan supergroup.
4. Define papaghni series,
5. What is saline series?
6. Define the climate of Gondwana super group.
7. What is the age of deccan traps?
8. Define ariyalur stage.
9. Define Quilon beds of Kerala.
10. Define laterite.

Part B (5 × 5 = 25)

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

11. (a) Explain cratons and mobile belts.

Or

(b) Explain correlation and its types.

12. (a) Describe Delhi supergroup.

Or

(b) Brief note on mineral resources of Proterozoic rocks.

13. (a) Discuss about distribution of coal deposits.

Or

(b) Describe the age of saline series.

14. (a) Describe Jurassic of kutch.

Or

(b) Write a brief note on petrology of deccan traps.

15. (a) Describe tertiary formations of cambay and karewa.

Or

(b) Discuss about quaternary formations.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Write a detailed note Principles of stratigraphy and Stratigraphic units.

17. Describe the cudappah super group.

18. Write a detailed note on Gondwana supergroup.

19. Write a note on Cretaceous of Trichinopoly.

20. Describe the tertiary rocks of Assam and Tamilnadu.

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