

F-1616

Sub. Code

7BGE1C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

First Semester

Geology

DYNAMIC GEOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Tidal hypothesis.
2. Define size and density of the Earth.
3. Define dormant volcanoes.
4. Define fissure type volcanoes.
5. Define Epicentre.
6. Define Mercalli's intensity scale.
7. Define Convection current.
8. Define Contraction theory.
9. Define plate boundaries.
10. Define continental drift.

Part B**(5 × 5 = 25)**

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

11. (a) Describe Nebular Hypothesis with neat sketches.

Or

- (b) Write note on Planetesimal hypothesis.

12. (a) Give short note on Carbon dating method.

Or

- (b) Write note on products of volcanoes.

13. (a) Describe Mantle of the Earth.

Or

- (b) Write note on distribution of earthquake.

14. (a) Write note on classification of mountains.

Or

- (b) Describe the concept of Airy's theories of Isostasy.

15. (a) Write note on tectonic features associate with tectonic plate boundaries.

Or

- (b) Give an account on Relief features and their distribution.

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

Answer any **three** questions.

16. Write a detailed note on Earth as a member of solar system and its relation to other planets.
 17. Give a detail understanding on Age of the Earth.
 18. Write an essay on Earthquakes. Add a note on its effects and causes.
 19. Explain origin of tectonic mountains with neat sketches.
 20. Discuss the concept of continental drift theory.
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F-1617

Sub. Code

7BGE1C2

B.Sc. DEGREE EXAMINATION, APRIL 2019

First Semester

Geology

GEOMORPHOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define regolith.
2. Define insolation weathering.
3. Define perched water table.
4. Define desert pavement.
5. Define permeability.
6. Define river piracy.
7. Define eskers.
8. Define lagoon.
9. Define continental rise.
10. Define mid oceanic ridges.

Part B

(5 × 5 = 25)

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

11. (a) Write note on the physical weathering.

Or

- (b) Describe rapid flowage types.

12. (a) Write short note on hot springs and geysers.

Or

- (b) Write note on sand dunes and its types.

13. (a) Give an account on graded profile.

Or

- (b) Write short note on development of river valleys.

14. (a) Give a brief account on glacial wastage.

Or

- (b) Write note on causes of glaciations.

15. (a) Write short note on origin of lakes.

Or

- (b) Describe waves and tides.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on Classification of relief features.
17. Discuss the geological work and landforms produced by wind.

18. Give detailed understanding on Drainage pattern.
 19. Explain the geological work and landforms produced by glacier.
 20. Write detailed note on landforms produced by marine processes.
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F-1618

Sub. Code

7BGE2C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

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 Index fossils.
2. Define Globigerina.
3. Define Zaphrentis.
4. Define Holaster.
5. What is Aristotle's lantern?
6. Define Permineralisation.
7. Define Micropalaeontology.
8. What is Genal angle?
9. Define Homotaxis.
10. Define Magneto stratigraphy.

Part B

(5 × 5 = 25)

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

11. (a) Write note on applications and uses of microfossils.

Or

- (b) Write about the morphology of Textularia.

12. (a) Describe the morphology of Coelenterata.

Or

- (b) Give a short description of following:

- (i) Cyathophyllum
- (ii) Thecosmilia heliolites.

13. (a) Describe the morphology of Pelecypoda.

Or

- (b) Give an account on suture of Cephalopoda with neat sketches.

14. (a) Give an account on development of eye of Trilobita with neat sketches.

Or

- (b) Write a note on Vertebrata.

15. (a) Write short notes on principles of stratigraphy.

Or

- (b) Write a short note on Walther's law of facies.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the nature and mode of preservation of fossils.
 17. Discuss the morphology, classification and geological history of Echinoidea.
 18. Give a detail understanding on morphology and geological history of Brachiopoda.
 19. Write detail note on following:
 - (a) Petrification.
 - (b) Laws of stratigraphy.
 - (c) Recrystallisation.
 - (d) Evolution and migration of life form.
 20. Give detailed account on stratigraphic correlation.
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F-1619

Sub. Code

7BGE3C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

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 crystalline and amorphous forms.
2. Define interfacial angle.
3. Mention few forms of tetragonal system.
4. Write about axial characteristics of hexagonal system.
5. Define hemimorphic form.
6. Define simple and contact twinning.
7. Define isotropism.
8. Define double refraction.
9. Define optic axis.
10. Define biaxial minerals.

Part B**(5 × 5 = 25)**

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

11. (a) Give short note on symmetry elements.

Or

- (b) Briefly mention about the axial characteristics of six crystal system.

12. (a) Write short note on Tetragonal system and their forms.

Or

- (b) Give short note on axial characteristics, symmetry and forms of hexagonal division.

13. (a) Write short note on orthorhombic system normal class.

Or

- (b) Write brief about imperfection and irregularities of crystals.

14. (a) Enumerate the optical properties of minerals under cross nicol conditions.

Or

- (b) Briefly write about Isotropism, anisotropism, and double refraction.

15. (a) Write short note on optical characteristics of biaxial minerals.

Or

- (b) Write a short note on optic axis, pleochroism, and extinction.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on how the crystals are classified in to systems and add a note on symmetry elements
 17. Write an essay on hexagonal system and add note on normal class of hexagonal division.
 18. Discuss in detail about the axis, symmetry, forms of monoclinic systems with special focus on normal class.
 19. Explain about the following
 - (a) Plane polarized light
 - (b) construction and uses of nicol prism
 - (c) uses of optical accessories
 20. Write an essay on uniaxial and biaxial minerals.
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F-1620

Sub. Code

7BGE3C2

B.Sc. DEGREE EXAMINATION, APRIL 2019

Third Semester

Geology

MINERALOGY

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define minerals and its characteristics.
2. Define Polymorphism.
3. Define sheet silicates with neat sketch.
4. Define Physical properties of Quartz.
5. Define Tecto-silicate with neat sketch.
6. Define Isodimorphism.
7. Define the occurrence of Feldspathoid.
8. Define the occurrence of Mica.
9. Composition of Kyanite.
10. Composition of Sphene.

Part B

(5 × 5 = 25)

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

11. (a) Write note on occurrence and association of minerals.

Or

- (b) Give short note on Isomorphism and paramorphism.

12. (a) Describe Silicate structures.

Or

- (b) Write short note on Quartz group of minerals.

13. (a) Write short note on Amphibole group of minerals.

Or

- (b) Give an account on Garnet group of minerals.

14. (a) Write note on Rhodonite group of minerals.

Or

- (b) Describe the chemistry, physical and optical properties of Scapolite.

15. (a) Describe the physical and optical properties of Tourmaline group.

Or

- (b) Write short note on Calcite group.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on molecular and empirical formulae of minerals.
17. Give of detail understanding on Feldspar group.

18. Give detailed note on the Pyroxene group of minerals.
 19. Discuss Mica group of minerals.
 20. Explain Olivine group of minerals.
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F-1621

Sub. Code

7BGE4C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

Fourth Semester

Geology

INDIAN STRATIGRAPHY

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is Eparchean unconformity?
2. List out the economic minerals of Dharwars.
3. Give the rock types of Cuddapahs.
4. List the economic minerals of Vindhya.
5. Write the divisions of Cambrian with their index fossils.
6. Write the age of products limestone beds.
7. Give the three fold division of Gondwana.
8. What is marine transgression?
9. What is the age of Deccan traps?
10. List any two fauna of Siwalik system.

Part B**(5 × 5 = 25)**

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

11. (a) Write a brief note on classification of Dharwars.

Or

- (b) Write briefly on the physiographic divisions of India.

12. (a) Describe the Kurnool formation.

Or

- (b) Write briefly on the economic importance of Vindhya.

13. (a) Write a short note on Cambrian of salt range.

Or

- (b) Write briefly on Haimantha system.

14. (a) Write note palaeoclimate and sedimentary history of Gondwana super group.

Or

- (b) Give an account on Jurassic of Kutch.

15. (a) Give a brief note on Cuddalore Sandstone.

Or

- (b) Describe Siwalik system.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write in detail about the Dharwar super group, its stratigraphy and economic importance.
 17. Write an essay on the Cuddapah super group, the stratigraphic succession and economic importance.
 18. Explain Triassic formation of spiti area, its stratigraphy and geological significance.
 19. Write an essay on the Gondwana super group, its classification and economic importance.
 20. Write in detail about the Deccan trap formations. Explain what are inter-trappean and intratrappean beds.
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F-1622

Sub. Code

7BGE4C2

B.Sc. DEGREE EXAMINATION, APRIL 2019

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 large scale in a map?
2. Define dip and strike.
3. Define stress and strain.
4. What is shear stress?
5. Define deformation.
6. What is axial plane?
7. Define true north.
8. Define fractures.
9. What is nappe?
10. Define inlier.

Part B (5 × 5 = 25)

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

11. (a) Write short note on the features of geological maps.
Or
(b) Give an account on the brittle deformation of rocks.
12. (a) Write short note on the stress and strain.
Or
(b) Write about the mechanism of the folds.
13. (a) Write short note on normal and reverse fault with a neat sketch.
Or
(b) Give an account on the types of stress.
14. (a) Write short note on the parts of the folds.
Or
(b) Describe compressional stress on a rock.
15. (a) Write short notes on clinometer compass.
Or
(b) Write about the contours and its geological significans.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Write in detail about the causes and mechanism of folding with a neat sketch.
17. Explain the various stages of deformation of rocks.

18. Explain the fault system with a neat sketch.
 19. Discuss the difference between joints and fractures formed during deformation of rocks.
 20. Write in detail about the types of unconformity in geological formations.
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