

A-8763

Sub. Code

4BGE1C1

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Geology

DYNAMIC GEOLOGY

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define outer planets with example.
2. Define Galaxy.
3. Define dormant and extinct volcanoes with examples.
4. Define half life period.
5. Define isoseismal lines.
6. Define body wave. Make a list of all body waves.
7. What is Isostasy?
8. Define mountain chain.
9. What is convergent plate boundary?
10. What are lithospheric plates?

Part B**(5 × 5 = 25)**Answer **all** questions choosing either (a) or (b).

11. (a) Write short note on following :

(i) Tidal Hypotheses

(ii) Dust and cloud Hypotheses.

Or

(b) Write note on ocean basins and continents and their distribution.

12. (a) Give short account on Age of the Earth.

Or

(b) Write note on carbon dating method.

13. (a) Give an account on causes and effect of earth quakes.

Or

(b) Write note on Mercalli's intensity scale of earthquake.

14. (a) Write note on origin of Tectonic mountains.

Or

(b) Give brief account on plate tectonics theory.

15. (a) Describe sea floor spreading.

Or

(b) Write short note on mechanism of plate motion.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Give detailed account on the Solar system.
 17. Write an essay on Volcanism.
 18. Explain the internal structure of Earth with neat sketches.
 19. Give detailed note on classification of mountains.
 20. Explain the concept and evidences of continental drift theory.
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A-8764

Sub. Code

4BGE1C2

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Geology

GEOMORPHOLOGY

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define geomorphic agent.
2. What is Degradation?
3. What is Barchans?
4. Define hot springs.
5. Define Ox-bow lakes.
6. Define river terraces.
7. Define icebergs.
8. What is meant by outwash?
9. Define coral reefs.
10. Define continental margin.

Part B

(5 × 5 = 25)

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

11. (a) Enumerate how climate conditions control geomorphic features.

Or

- (b) Give a brief account on the factors favouring mass wasting.

12. (a) Write short notes on karst topography

Or

- (b) Give an account on wind borne depositional landforms.

13. (a) Describe the conditions required for the development of water fall.

Or

- (b) Describe the process of rejuvenation in fluvial cycle.

14. (a) Give short account on the types of glaciers.

Or

- (b) Give a brief account on ablation and calving of glacier.

15. (a) Write short notes on submarine canyons.

Or

- (b) Describe the types of shoreline.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Give detailed account on the processes and products of weathering.
17. Explain in detail about the landforms produced by groundwater.
18. Write an essay on fluvial cycle of erosion.
19. Enumerate the erosional and depositional features produced by glaciers.
20. Write an essay on origin and classification of lakes.

A-8765

Sub. Code

4BGE2C1

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

Second Semester

Geology

PALAEONTOLOGY AND GENERAL STRATIGRAPHY

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Palaeontology
2. What is favosites?
3. What is lunule?
4. Write the age of Paradoxides
5. What is order of superposition?
6. Geological history of cephalopods
7. What is adductor impression?
8. Describe the shapes of theca in graptolites.
9. Describe plant fossil glossopteris
10. Define series.

Part B

(5 × 5 = 25)

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

11. (a) Write brief note on gastropods.

Or

- (b) Describe hingline structures of pelecypods.

12. (a) Describe the morphology of montlivaltia.

Or

- (b) Describe about the phylum arthropoda.

13. (a) Describe the morphology of phylum coelenterate.

Or

- (b) Give an account on general morphology of phylum Echinodermata.

14. (a) Give brief description on sponges.

Or

- (b) Describe the classification of Phylum protozoa.

15. (a) Write about laws of stratigraphy.

Or

- (b) Describe various stratigraphic classifications.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain morphology, geological history of Cephalopoda.
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17. Explain the morphological charater of Foraminifera

18. Write an essay about Anthozoa
 19. Describe the following fossils
 - (a) Glossopteris
 - (b) Sigillaria
 - (c) Elatocladus
 20. Write an essay on physical and biological criteria of correlation.
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A-8766

Sub. Code

4BGE3C1

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

Third Semester

Geology

CRYSTALLOGRAPHY AND OPTICAL MINERALOGY

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define crystalline form.
2. Define interfacial angle.
3. Write the axial character of Isometric system.
4. Give examples for mineral crystallizing in tetragonal normal class.
5. Write the symmetry elements and forms of Rutile.
6. Write the axial character of Hexagonal system.
7. Write the symmetry elements and forms of Barite.
8. Define twin crystals.
9. Define polarization.
10. Give examples for Uniaxial minerals.

Part B

(5 × 5 = 25)

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

11. (a) Write notes on morphological characters of a crystal.

Or

- (b) Describe hemihedral forms in crystal.

12. (a) Write the symmetry elements and forms present in normal class of cubic system.

Or

- (b) Write the symmetry elements and forms present in normal class of hexagonal division.

13. (a) Write the symmetry elements and forms present in Topaz and Staurolite.

Or

- (b) Describe the kinds of twinning.

14. (a) Give note on general characteristics of light.

Or

- (b) Write a note on Nicol prism, its construction and uses.

15. (a) Write a note on optic sign and sign of elongation.

Or

- (b) Give a note on extinction angle and its determination.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write in detail about measuring interfacial angles by using contact Goniometer.
 17. Write symmetry elements and forms present in Hemimorphic and tripyramidal classes of tetragonal system.
 18. Give a detailed account on axial character, symmetry elements and forms present in normal class or orthorhombic system.
 19. Write in detail about petrological microscope its parts and their functions.
 20. Explain the properties observed under parallel Nicols of Isotropic minerals.
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A-8767

Sub. Code

4BGE3C2

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

Third Semester

Geology

MINERALOGY

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all the** questions.

1. Define lustre with example.
2. Define polymorphism and give one example.
3. Define phyllosilicate.
4. Define Leucite.
5. Write the physical properties of zeolite.
6. Write the composition of Wallastonite.
7. Define Chromium bearing Garnet.
8. Write the chemical composition of Acmite.
9. Write the optical properties of Beryl.
10. Write the hardness of Kyanite.

Part B**(5 × 5 = 25)**

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

11. (a) Write note on pseudomorphism-Molecular and empirical formulae of minerals.

Or

- (b) Give an account on mode of occurrence and association of minerals.

12. (a) Write note on physical and optical properties of feldspar group of minerals.

Or

- (b) Write short note on following:

- (i) Neso silicate
- (ii) Chain silicate.

13. (a) Give an account on chemical composition and mode of occurrence of Scapolites.

Or

- (b) Write short notes on followings :

- (i) Physical properties of Rhodonite.
- (ii) Optical properties of Zeolite.

14. (a) Write note on physical properties of Garnet.

Or

- (b) Give an account on chemical composition and mode of occurrence of Hornblende.

15. (a) Write a note on properties and mode of occurrence of Alumino Silicates.

Or

- (b) Write note on Calcite group of minerals.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain physical properties of minerals and their determination with suitable examples.
 17. Give a detail note on physical, optical chemical composition and mode of occurrence of Quartz group of minerals.
 18. Discuss about the physical, optical, chemical composition and mode of occurrence of Mica group of minerals.
 19. Write an essay on pyroxene group of minerals.
 20. Write detail note on Tourmaline. its properties and occurrences.
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A-8772

Sub. Code

4BGEE1A

B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

Fifth Semester

Geology

***Elective* — FIELD GEOLOGY**

(CBCS – 2014 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. List out the precautions in the field geology.
2. Define trench.
3. Define contour.
4. Define True dip.
5. What is outcrop?
6. Define limb.
7. Define channel sampling.
8. Define grit sampling.
9. Define map.
10. Define Topography map.

Part B

(5 × 5 = 25)

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

11. (a) Write short notes on importance of field geology.

Or

- (b) Write short notes on pitting and trenching.

12. (a) Give an account on the importance of contour and outcrop in geological mapping.

Or

- (b) Describe the relationship between dip and strike.

13. (a) Write short notes on repetition of outcrops.

Or

- (b) Write short notes on the relationships between true thickness and vertical thickness.

14. (a) Write short notes on coning and quartering for sediment sample.

Or

- (b) Describe the following :

- (i) Sampling
- (ii) Vertical thickness.

15. (a) Describe the Topographic map.

Or

- (b) Write short notes on geological map.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write an essay on drilling types and its uses.
 17. Explain the study of contouring and its implication.
 18. Describe about true thickness and vertical thickness and how to measure on the field?
 19. Write an essay on various methods of rock sampling.
 20. Explain the symbol used for the rock type and various structural.
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