

B.Sc DEGREE EXAMINATION, APRIL 2010**IV Semester****GEOLOGY****INDIAN STRATIGRAPHY****(CBCS - 2008 Onwards)**

Duration : 3 Hours

Maximum : 75 marks

Part - A

(10 x 2 = 20)

Answer ALL Questions

1. What is Eparchean Unconformity?
2. Define Order of Super position.
3. Describe about Srisailam quartzites.
4. Give any two economic importance of Vindhyan System.
5. Define Bunter Series.
6. Write any two characteristic features of Umia Series of Jurassic System.
7. What is Cenomanian transgression?
8. Define Raniganj stage.
9. "Neobolus beds" - Define
10. Define Muree Series.

Part-B

(5 x 5 = 25)

Answer ALL Questions

11. a. Describe the major physiographic divisions of India.

(OR)

b. Evaluate the mineral Resources of Archean rocks.

12. a. Give an account on the Stratigraphy of Upper Vindhyan rocks.

(OR)

b. Write about the economic importance of Cuddapah basin.

13. a. Discuss the age of the Saline Series.

(OR)

b. Describe about the Umaraiia marine bed.

14. a. Write a brief account on Paleoclimate and Sedimentation history of Gondwana sequence.

(OR)

b. Describe the lithostratigraphic succession of Jurassic of Kutch.

15. a. Write a brief essay on the age of Deccan traps.

(OR)

b. Discuss the stratigraphy of Warkala beds and Cuddalore Sandstones.

Part-C

(3 x 10 = 30)

Answer any THREE Questions

16. Describe the distribution of Archaean rocks in Peninsular India.
17. Write an essay on the Stratigraphy and Sedimentation of Cuddaph super group.
18. Elaborate the Stratigraphic succession, Sedimentation history along with Paleontology of Jurassic System.
19. Explain Cenomanian transgression. Give the stratigraphic and Paleontologic account on Cretaceous of Trichinopoly.
20. Write a detailed note on the stratigraphic succession, sedimentation history along with Paleontology of Siwalik System.

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B.Sc. DEGREE EXAMINATION, APRIL 2010**First Semester****Geology****GEOMORPHOLOGY****(CBCS—2008 Onwards)**

Duration : 3 Hours

Maximum : 75 Marks

Part - A

(10 x 2 = 20)

Answer **ALL** Questions

1. What is Exfoliation?
2. What is Mass Wasting?
3. What is River meandering?
4. Write about Base level of Erosion.
5. Define aquifer.
6. What is flood plain deposits?
7. Write about 'U' shaped valley.
8. What is a Delta?
9. Explain Barrier reef.
10. What s a mid oceanic ridge?

Part-B

(5 x 5 = 25)

Answer **ALL** Questions

11. a. Define mass wasting. Describe the types of mass wasting.

(OR)

b. Write short notes on Geomorphic agents.

12. a. Write short notes on Sand dunes and their types.

(OR)

b. Write an account on atmosphere, its composition and zones.

13. a. Describe Geomorphic cycle and cycle of erosion.

(OR)

b. Write note on Drainage Patterns.

14. a. Explain in brief about glacial epochs.

(OR)

b. Write an account on types of glaciers and their movement.

15. a. Describe about the types of Shorelines.

(OR)

b. Write note on origin and classification of Lakes.

Part-C

(3 x 10 = 30)

Answer any **THREE** of the following

16. Bring out the role of climate and its products in the evolution of land forms.
17. Explain about the land forms produced by ground water.
18. Explain the following:
 - i. Braided stream
 - ii. Water falls
 - iii. Base level of erosion
19. Write in detail about the geologic work and landforms produced by glacial ice.
20. Explain detail about the continental shelf, continental rise and abyssal plain.

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PART - B
Answer **All** Questions

(5 x 5 = 25)

11. a) Attempt a classification on Animal Kingdom.

(or)

b) Describe Nummulites fossils.

12. a) Outline the classification of Phylum Echinodermata.

(or)

b) Outline the morphology of

(i) Hemicidaris

(ii) Stigmatopygus.

13. a) Describe the Dentition pattern in Pelecypod.

(or)

b) Describe the various shell forms of Gastropoda.

14. a) Outline the classification of Phylum Arthropoda.

(or)

b) Give an outline of classification of Vertebrates.

15. a) Describe Geological time scale.

(or)

b) Describe the Principles of Stratigraphy.

PART - C

(3 x 10 = 30)

Answer any **Three** Questions

16. Explain the morphological character of Foraminifera.
17. Explain the morphological and geological history of the Echinodermata.
18. Write an essay on the Cephalopoda:
19. Describe following fossils
 - (i) Glossopteris
 - (ii) Gangamopteris
 - (iii) Elatocladus
20. Write an essay on Imperfections of Geological record.

B.Sc. DEGREE EXAMINATION, APRIL 2010**Thrid Semester****Geology****CRYSTALLOGRAPHY****(CBCS—2008 Onwards)**

Duration : 3 Hours

Maximum : 75 Marks

Part - A

(10 x 2 = 20)

Answer **ALL** Questions

1. Define Crystallographic faces.
2. What is Interfacial angle?
3. Define System.
4. Define Prism and Pyramids.
5. Write any four Hexagonal group minerals.
6. Write note an Isometric normal class symmetry elements.
7. Define Orthopinacoid and Dome.
8. Write any four Monoclinic group minerals.
9. Define Penetration Twin.
10. Define Cyclic Twin.

Part-B

(5 x 5 = 25)

Answer **ALL** Questions

11. a. Describe parameters of Indices and Symbol.

(OR)

b. Write about contact and reflecting Goniometers with neat sketches.

12. a. Write short note on Hexatetrahedral and Deploidal class symmetry elements.

(OR)

b. Describe Hemihedral and Enantiomorphos forms in crystals.

13. a. Write about the Tetragonal system normal and scalenohedral class symmetry elements.

(OR)

b. Write a short note on Rhomohedral division.

14. a. Describe Orthorhombic system normal and pyramidal class symmetry elements.

(OR)

b. Write a note on Triclinic system normal class symmetry elements.

15. a. Describe Laws of twining.

(OR)

b. Write a short note on outline of imperfection and irregularities in crystals.

Part-C

(3 x 10 = 30)

Answer any **THREE** of the following

16. Write an essay on crystal structure, morphological characters of a crystal and Weiss and Millerian systems of crystal notation.
17. Write an essay on Normal Class of Isometric system.
18. Write an essay on Symmetry Elements and forms of Normal class Tetragonal system with neat sketch.
19. Write an essay on the forms, Symmetry Elements of different class of monoclinic crystal system.
20. Explain twin plane, twin axis and types of twin.

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B.Sc. DEGREE EXAMINATION, APRIL 2010

Fourth Semester

Geology

MINERALOGY

(CBCS—2008 Onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part - A

(10 × 2 = 20)

Answer **All** the questions.

1. Define : mineral.
2. Define : Moh's Scale of hardness.
3. What is a Plane Polarized light ?
4. Mention the uses of Nicol Prism.
5. Define optic axis.
6. Define : Pleochroism.
7. Write the general Chemical Composition of Wollastonite and Spodumene.

8. List any four diagnostic properties of rhodonite.
9. Write names of any four monoclinic pyroxenes with its Chemical composition.
10. Write any two important diagnostic properties of kyanite and calcite.

Part - B

(5 × 5 = 25)

Answer **All** questions.

11. (a) Write a note on the physical properties of mineral

(Or)

- (b) Write note on Isomorphism and Polymorphism.

12. (a) Describe Brewster's law.

(Or)

- (b) Differentiate between Isotropism and Anisotropism.

13. (a) What is an extinction angle and how it is determined ?

(Or)

(b) Write note on birefringence and interference colour.

14. (a) Give a short account on Paragenesis of sodalime feldspars.

(Or)

(b) What are Zeolites ? Discuss their occurrence and uses.

15. (a) Give an account on distinctive physical and optical properties of olivines.

(Or)

(b) Write a descriptive note on Chlorites and Rutile.

Part - C

(3 × 10 = 30)

Answer any **Three** questions.

16. Describe about the Physical Properties of minerals.

17. Describe about the Petrological microscope with a neat sketch.

18. Write an essay on uniaxial and biaxial mineral character.

19. Explain the physical condition, chemical composition and mode of occurrences of Mica.

20. Write an essay on physical and optical properties, chemical composition uses and mode of occurrences of Garnets.

B.Sc. DEGREE EXAMINATION, APRIL 2010**First Semester****Geology****DYNAMIC GEOLOGY****(CBCS—2008 Onwards)**

Duration : 3 Hours

Maximum : 75 Marks

Part - A

(10 x 2 = 20)

Answer **ALL** Questions

1. Define Solar System.
2. What are Ocean basins?
3. Define Geosyncline.
4. What is a Destructive margins?
5. What is Carbon dating?
6. Differentiate the Vulcanian and Pelean type of Volcanoes.
7. Define Epi-centre.
8. What is Seismograph?
9. Name the major tectonic plates.
10. Define 'Polar-Wandering curve'.

Part-B

(5 x 5 = 25)

Answer **ALL** Questions

11. a. Write notes on the various theories about the origin of the earth.

(OR)

- b. Describe about ocean basins and their distribution.

12. a. Describe about contraction theory.

(OR)

- b. Describe Isostasy.

13. a. Give a broad outline on the age of the earth.

(OR)

- b. List the causes of Volcanism.

14. a. Explain Seismograph and its significance.

(OR)

- b. Explain the Interior of the earth with a neat sketch.

15. a. Write an account on Taylor and Wegner continental drift theories.

(OR)

- b. Explain about Seafloor spreading.

Part-C

(3 x 10 = 30)

Answer any **THREE** Questions

16. Write an essay on the classification of relief features.
17. Write an essay on mountain chain.
18. Give a detailed account on Volcanoes with particular reference on their types and distribution.
19. Write an essay on classification and causes of earthquakes.
20. Explain about the concept of plate tectonics and its classifications.

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