

<b>F-3021</b>
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<b>Sub. Code</b>
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<b>7MGE1C1</b>
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**M.Sc DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Geology**

**GEOMORPHOLOGY AND MARINE GEOLOGY**

**(CBCS – 2017onwards)**

Time: Three Hours

Maximum: 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. List out a few coastal and fluvial landforms.
2. State the names of drainage patterns.
3. Write a short note on the formation of Rivers Delta.
4. Define geomorphic cycle.
5. Write a short note on wave cut Terrace.
6. What are Tides?
7. What is Ooze?
8. Write a short note on the any two Physical properties of sea water.
9. Define Isostacy.
10. What is Metallic pollution?

**Part B****(5 × 5 = 25)**

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

11. (a) How the lithology control the geomorphological features by geological structure.

Or

- (b) Explain Karst Topography.

12. (a) Write brief note on Coastal Geomorphology.

Or

- (b) Explain briefly on the distribution of soil of India.

13. (a) Give an account on the four types of Erosion by rivers.

Or

- (b) Explain the Erosional features developed by wind.

14. (a) Write briefly note on the Chemical properties of sea water.

Or

- (b) Write a note on manganese nodules.

15. (a) Give an account on the classification of deep sea sediments.

Or

- (b) Write briefly note on deep water petroleum deposits.

**Part C**

(3 × 10 = 30)

Answer any **Three** questions.

16. Write an essay on the Transportation and depositional features of wind.
  17. Write a brief account on the major geomorphic features of India.
  18. Write an essay on classification of soil in India.
  19. Write an essay on continental margin and shelf.
  20. Write an essay on the method of deep sea exploration of mineral resources.
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<b>F-3022</b>
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<b>Sub. Code</b>
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<b>7MGE1C3</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Geology**

**STRATIGRAPHY AND PALAEOLOGY**

**(CBCS – 2017 onwards)**

Time: 3 Hours

Maximum: 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Name the tectonic division of India.
2. Mention the Stratigraphic location of Siwaliks.
3. Give a short account on saline series of India.
4. Write is Chronostratigraphy.
5. Give short note on LowerGowndwana Index fossils.
6. Write a note on Lepidodendron.
7. What is Sigillaria?
8. Distinguish between Gangamopteres and Glossopteris.
9. Write a short note on calamites.
10. Sigillaria.

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

11. (a) Give an account on chronostratigraphic correlations.

Or

- (b) Describe the stratigraphy and mineral resource of Singhbhumcraton.

12. (a) Give an account on Cretaceous of Tiruchirapalli.

Or

- (b) Give an account on the stratigraphic succession of Triassic of Spiti.

13. (a) Bring out the stratigraphic importance of Cuddalore Sandstone.

Or

- (b) Describe the stratigraphy of Cambrian of salt range.

14. (a) Describe the distribution of Toraminitera.

Or

- (b) Describe the pattern in lamelibranchs.

15. (a) Give brief account on Crinoids.

Or

- (b) Give a brief account on Glossopteris.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain in detail the lithology, stratigraphy, and Faunal content of Swaliks.
  17. Write an essay on the principles of Stratigraphic correlation.
  18. Give a detailed account on Morphology and Geologic history of Trilobites.
  19. Describe the morphological characters of cephalopoda with neat sketch.
  20. Write an essay on the nature and modes of preservation of fossils.
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**F-3027****Sub. Code****7MGE3C1****M.Sc DEGREE EXAMINATION, NOVEMBER 2019****Third Semester****Geology****ECONOMIC GEOLOGY****(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **All** questions.

1. Write a short note on Evaporation.
2. Give a short note on Sublimation.
3. What is the use of Asbestos?
4. Define Gemstone and give examples.
5. Define Tenor and Grade for minerals.
6. Write a short note on Metallogenic provinces.
7. Write a short note on essential minerals in India.
8. Define Close door policy.
9. What are uses Abrasives?
10. Write short notes on Para genesis.

**Part B****(5 × 5 = 25)**

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

11. (a) Explain briefly on Residual concentration.

Or

- (b) Explain briefly on mechanical concentration process.

12. (a) Enumerate the mode of occurrence and distribution of Bauxite and Copper.

Or

- (b) Explain briefly on mode of occurrence and distribution of Chromites and Iron.

13. (a) Give a note briefly on Ceramics.

Or

- (b) Describe about the physical and Optical properties of Ore minerals.

14. (a) Write briefly on Mineral taxation.

Or

- (b) Explain the principles of Ore microscopy.

15. (a) Discuss about the essential, Critical and Strategic minerals.

Or

- (b) Discuss about the mineral wealth of Tamil Nadu.



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

Answer any **Three** questions.

16. Write an essay on Origin, Occurrence and Distribution of Limestone.
17. Write briefly on Origin, Occurrence and distribution of Iron and Manganese deposits.
18. Discuss briefly on National minerals policy.
19. Write an essay on Physical and chemical properties mode of Occurrence and distribution in India of the minerals required for the Paint and Glass industries.
20. Discuss briefly on the minerals conservation and substitution.

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<b>F-3028</b>
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<b>Sub. Code</b>
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<b>7MGE3C2</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**Third Semester**

**Geology**

**ENGINEERING GEOLOGY, MINING GEOLOGY AND  
ORE DRESSING**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Growing.
2. What are Gravity Dams?
3. What is ventilation in Tunneling?
4. Mention any six-mine explosives.
5. Write a short note on types of drills.
6. Write about the types of Mining.
7. Define Minerals dressing.
8. Define Ball mills.
9. What are the path finder elements?
10. Define Grading.

**Part B****(5 × 5 = 25)**

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

11. (a) Write briefly on modular of deformation of rock.

Or

- (b) Write an account on engineering properties of the rocks.

12. (a) Describe the nature and properties of building stones.

Or

- (b) Outline then economic significance of slope movements.

13. (a) Describe mine machinery.

Or

- (b) Elaborate on surface mining of a non metallic ores.

14. (a) Discuss about the role of geologist in mining Industry.

Or

- (b) Discuss about the estimation of Ore reserve.

15. (a) Write briefly on physical and chemical properties of minerals.

Or

- (b) Discuss about the principles and application of Floatation.

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

Answer any **three** questions.

16. Write an essay on the Role of Geology in Civil Engineering Projects.
  17. Enumerate the geological investigation of sites in the construction of dams and reservoirs.
  18. Classify mining methods of Ores.
  19. Elaborate on mine supports and ventilation with a brief note on mine accidents.
  20. Write an essay on principle of magnetic electrostatic separation.
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<b>F-3029</b>
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<b>Sub. Code</b>
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<b>7MGE3E1</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**Third Semester**

**Geology**

**Elective — REMOTE SENSING, GIS AND  
COMPUTATIONAL GEOLOGY**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Data acquisition.
2. Define Stefan Boltzmans Law.
3. What is charge couple device?
4. Define scanning system.
5. Define digital image processing.
6. Write about grey level Thresholding.
7. Define Vector and Raster data.
8. Write a short note on components of GIS.
9. Define continuous Random variable.
10. Define Hardware and software.

**Part B****(5 × 5 = 25)**

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

11. (a) Explain principle Energy Sources and Radiation.

Or

- (b) Write an account on active and Passive Remote Sensing Systems.

12. (a) Explain sensor characteristics of LANSAT and SPOT.

Or

- (b) Give a brief note on Across and Along Track scanning system.

13. (a) Explain Geometric and Radiometric corrections.

Or

- (b) Detail note on image classifications.

14. (a) Discuss Basic principle and uses of GIS.

Or

- (b) Detail note on GIS application in Minerals exploration.

15. (a) Explain probability, Discrete, Random variable and Binominal distribution.

Or

- (b) Write an account on Bay's theorem.

**Part C** $(3 \times 10 = 30)$ Answer any **three** questions.

16. Describe Thermal Remote Sensing.
  17. Elucidate the spatial spectral and radiometric sensors and their resolutions.
  18. Detailed note on the data merging and GIS integration.
  19. Elaborate Data analysis manipulation and management.
  20. Give explanation on the central limit theorem standard and its error.
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