

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Geology

GEO 2C 03—DATA SOURCES OF REMOTE SENSING AND GIS

Time : Two Hours

Maximum : 60 Marks

Answer all questions.

Draw neat sketches wherever necessary.

Section A

*Answer at least **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 24.

1. Wien's displacement law.
2. Microwave remote sensing.
3. Blackbody radiation.
4. Jitter.
5. Attitude sensors.
6. Sun synchronous orbit.
7. GAGAN.
8. Dispersing element.
9. Along-track scanning.
10. Hyperspectral remote sensing.
11. Thematic maps.
12. Hybrid data model.

(8 × 3 = 24 marks)

Turn over

Section B

Answer at least five questions.

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. Spectral reflectance of soil and vegetation.
14. Types of remote sensing platforms.
15. Orbital elements of satellite.
16. Types of atmospheric sensors.
17. Application of GIS in Urban Planning and Engineering.
18. GIS for decision support.
19. Advantages and disadvantages of Raster and Vector data models.

(5 × 5 = 25 marks)

Section C

Answer any one question.

The question carries 11 marks.

20. Explain the classification of remote sensing sensors. Add a note on the sensor parameters.
21. Describe the application of GIS in Environment and Natural Resources Management.

(1 × 11 = 11 marks)

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Geology

GEO 2B 03—DYNAMIC GEOLOGY AND GEO INFORMATICS

Time : Two Hours

Maximum : 60 Marks

*Answer all questions.**Draw neat sketches wherever necessary.***Section A***Answer at least eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. Pediplanation.
2. Glacial ages.
3. Trellis pattern.
4. Monadnocks.
5. Rejuvenation.
6. Perched water table.
7. Artesian wells.
8. Stalactite and Stalagmite.
9. Spatial data analysis.
10. Atmospheric windows.
11. Hyperspectral remote sensing.
12. Geostationary satellite.

(8 × 3 = 24 marks)

Section B*Answer at least five questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Types of dunes.
14. Glacial erosional landforms.
15. Fluvial depositional landforms.
16. Zones of subsurface distribution of underground water.

Turn over

17. Components of GIS.
18. GIS application in Geology.
19. Types of sensors in remote sensing.

(5 × 5 = 25 marks)

Section C

*Answer any **one** question.*

The question carries 11 marks.

20. Give an account of the physical and chemical processes of weathering.
21. Explain the types of data in GIS and the techniques of spatial data input.

(1 × 11 = 11 marks)

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**SECOND SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2021**

Geology

GLY 2B 03—DYNAMIC GEOLOGY AND GEO INFORMATICS

Time : Three Hours

Maximum : 80 Marks

Draw neat diagrams wherever necessary.

Part A

Answer all ten questions in one word or one sentence each.

Each question carries 1 mark.

1. Consequent streams.
2. Perched water table.
3. Define Artesian well.
4. Knick points.
5. Venti facts.
6. Lateral moraines.
7. Raster and Vector.
8. What is georeferencing.
9. Turbidite.
10. Formation of Atoll.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

Answer any ten questions.

Each question carries 2 marks.

11. Braided river.
12. Stream Terrace.
13. Monadnocks.
14. Confined aquifer.
15. Types of sand dunes.
16. Karst topography.

Turn over

17. Origin of Guyots.
18. Ocean trenches.
19. Examples for open GIS software's.
20. Inselbergs.
21. Flood plains and natural levees.
22. Origin of oxbow lakes.

(10 × 2 = 20 marks)

Part C (Paragraph Type Questions)

Answer any five questions.

Each question carries 6 marks.

23. Formation of desert landforms.
24. Density currents.
25. Application of GIS in urban planning.
26. Types of sand dunes.
27. Geysers and springs.
28. Drainage basins.
29. Concept of base level of erosion
30. Origin of coral reefs.

(5 × 6 = 30 marks)

Part D (Essay Type Questions)

Answer any two questions.

Each question carries 10 marks.

31. Describe the role of groundwater in shaping erosional and depositional landscapes.
32. Write an essay on the application of Geographic Information in Geosciences.
33. Describe ocean floor morphology and various tectonic elements.
34. Describe erosional and depositional landscapes produced by the action of wind.

(2 × 10 = 20 marks)