25U178S   (Pages: 2)   Name : ....

Reg. No : ....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

CC24UGEL1MN101 - GEOINFORMATICS - 1

(Geology - Minor Course)

(2024 Admission - Supplementary/Improvement)

Time: 2.0 Hours   Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Identify the limitations of GIS in different contexts.   [Level:1] [CO3]

2. Describe the characteristics of maps in depicting spatial relationships.   [Level:2] [CO4]

3. Identify the role of the "perspective centre" in determining image geometry.   [Level:1] [CO5]

4. Explain the concept of absorption in the context of EMR and the atmosphere.   [Level:2] [CO1, CO3, CO5]

5. Identify the uses of azimuthal projections.   [Level:1] [CO4]

6. Describe the characteristics of oblique aerial photographs.   [Level:2] [CO5]

7. Define GIS and its initial purpose.   [Level:1] [CO1]

8. Describe Stefan Boltzmann's law and its applications.   [Level:2] [CO5]

9. Describe the applications of topographic, thematic, and cadastral maps.   [Level:2] [CO4]

10. Identify the materials that allow the transmission of EMR and describe their   [Level:1] [CO5]
    characteristics.

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Define remote sensing and its primary applications.   [Level:1] [CO5]

12. Define Electromagnetic Radiation (EMR) and its energy sources.   [Level:1] [CO5]

13. Explain the technological advancements in Cartography and Photogrammetry.   [Level:2] [CO4]

14. Describe the methods used in GIS for spatial data analysis.   [Level:2] [CO2]

15. Explain how user needs influence the design of a map. [Level:2] [CO4]

16. Explain the significance of spectral reflectance in monitoring land cover changes. [Level:2] [CO5]

17. Explain the differences between a pocket stereoscope and a mirror stereoscope. [Level:2] [CO4, CO5]

18. Describe the process of data storage and retrieval in remote sensing. [Level:2] [CO5]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

19. Describe the basic principles of visual image interpretation and their importance in remote sensing. [Level:2] [CO5]

20. Explain how drift, crab, and tilt can affect the accuracy of aerial photographs and the methods used to mitigate these issues. [Level:2] [CO5]

(1 × 10 = 10 Marks)

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