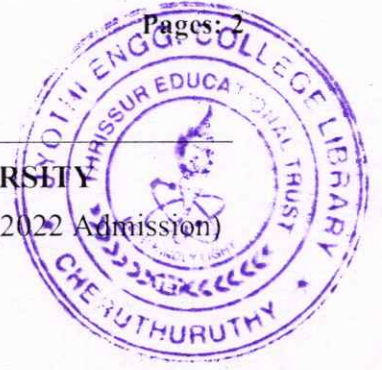


Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth Semester B.Tech (Hons.) Degree Examination June 2024 (2022 Admission)

**Course Code: CET296****Course Name: GEOGRAPHICAL INFORMATION SYSTEMS**

Max. Marks: 100

Duration: 3 Hours

PART A*(Answer all questions; each question carries 3 marks)*

	Marks
1 Define Vector Data	3
2 List out the coordinate systems in GIS software	3
3 Differentiate Active sensors and Passive sensors	3
4 Distinguish between pattern analysis and network analysis.	3
5 What are the different types of geometric transformations?	3
6 Illustrate the role of atomic clock in GPS.	3
7 Write any four Application of GIS	3
8 Define Buffering	3
9 Explain Zonal operation in Raster Data Analysis	3
10 Define the terms: Slope and Aspect	3

PART B*(Answer one full question from each module, each question carries 14 marks)***Module -1**

11 a) Explain the operations in GIS	6
b) List out the types of Map Projections	8
12 a) Explain Map Projection on the basis of properties preserved and View point	7
b) List out the components of GIS	7

Module -2

13 a) List out two advantages and disadvantages of Vector models and Raster models	8
b) Illustrate the types of relationships in Attribute data management with figure.	6
14 a) Differentiate between title and scale in map making	7
b) Highlight the role of digitisation in map preparation	7

Module -3

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|----|----|--|----|
| 15 | a) | Explain the different types of network analysis methods in GIS | 10 |
| | b) | Write short note on Pattern analysis | 4 |
| 16 | a) | Write a short note on vector data analysis – overlay | 5 |
| | b) | What are the different zonal operations suggested in the neighbourhood analysis of raster data. Explain with figure? | 9 |

Module -4

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|----|----|---|---|
| 17 | a) | List out the components in Data quality | 6 |
| | b) | Explain different sources of error in a GIS operation | 8 |
| 18 | a) | List out the applications of WebGIS | 7 |
| | b) | Explain any two terrain mapping techniques | 7 |

Module -5

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|----|----|---|---|
| 19 | a) | List out the uses of GPS. | 5 |
| | b) | Explain the factors affecting GPS accuracy. | 9 |
| 20 | a) | Differentiate between ground based remote sensing and satellite based remote sensing. | 5 |
| | b) | Explain different applications of remote sensing in GIS | 9 |
