N 274

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2203N274

Candidate's Seat No :_____

M.Sc. Sem.-1 Examination

402

Geoinformatics

March 2022

Time : 2-00 Hours] **[Max. Marks : 50**

Instructions: All questions in Section –I carry equal marks.

Attempt any Three questions in Section-I.

Questions I in Section-II is COMPULSORY.

Section - I

Q – I	A. What are the components of GIS? Define hardware &software requirements in it.	7
	B. Explain the linkage betweenspatial and non-spatial data with examples.	7
Q – II	A. Define the Raster and Vector Spatial data models.	7
	B. What is Topology? Explain giving examples the topology rules.	7
Q – III	A. Define Arc, Node and Vertices.	7
	B. What are the advantage and disadvantage of Raster and Vector methods?	7
Q – IV	A. Explain Chain codes, Block codes and Run-length codes with example.	7
	B. List some of the suggestions for the use of Raster and Vector Methods.	7
Q – V	A. Define the Map Elements. What is a Map scale? Give example.	7
	B. Define Geometric rectification. What is Digitization and error identification in GIS mapping?	7
Q – VI	A. Define Map Projection in GIS. List some map projection and explain one in detail.	7
	B. What are the types of Errors in GIS? What are the sources of errors and its correction methods?	7
Q – VII	A. Define RDBMS. Explain about the database schema. Define tables and its relationship with each other.	7
	B. Explain Hierarchicaland Relational models	7
Q – VIII	A. List the role of database administrator (DBA)	7
	B. Explain E-R diagram with an example. Define primary key and foreign key. Explain the data retrieval &data compression techniques.	7

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Q – IX	Section – II	8
	1. What are types of GIS Data a. Vector b. Raster c. Image d. Both a and b e. None of the above	1
	2. What are the basic elements of GIS? a. People b. Data c. Software d. All of the above e. None	1
	3. E-R Diagram stands for a. Entity Relationship Diagram b. Entity Relation Diagram c. Entity Record Diagram d. None	1
	4. The points in each mapping unit to be stored per rowfrom left to right a. Chain Codes b. Run-length Codes c. Block Codes d. Quadtree	1
	5. The geographical area is decomposed into four equal quadrants a. Run-length codes b Block codes c. Chain codes d. None of the above	1
	6. MAT stands for a. Medial Axis Transformation b. Medium Axis Transformation c. Media Axis Transformation d. Medial Axis Transfer	1
	7. Decomposition continues till each quad represents a _____ unit a. Heterogeneous b. Homogeneous c. Mixed d. None	1
	8. What is a Metadata? a. Metadata is data that is reference of data b. Metadata is data that points to other data c. Metadata is data that describes other data d. All of the above	1