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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)
Eighth Semester, B.E. - Civil Engineering

Semester End Examination; Aug. / Sep. - 2020
Geographic Information System

Geographic Information System Max. Marks: 100 Time: 3 hrs Note: i) Answer TWO full questions, selecting ONE full question from UNIT - I and UNIT - II. ii) Answer any THREE full questions, choosing from UNIT - III, UNIT - IV and UNIT - V. UNIT - I Give two working definitions of GIS. List the components of GIS and advantages of GIS. 10 1 a. Discuss object based model and field based model for depicting real world. 10 b. OR Discuss geographic coordinate system of the earth. What do you mean by map projection? 10 2 a. Describe the steps involved in creating digital spatial data by manual input with flowchart. 10 b. UNIT - II 10 Discuss the characteristic of Raster or Vector data models. 3 a. Briefly discuss quad tree data representation. Write briefly note on the geo-relationship b. 10 data model. OR Write short notes on: 4 a. 10 ii) SPATIAL DATA i) TOPOLOGY iv) DATA BASE iii) ATTRIBUTE DATA 10 Indicate the use of scanners and digitizers in data acquisition. b. UNIT - III 10 Discuss the components of geographic data quality. 5 a. 10 Define the terms; Accuracy, Prescision, Error and Uncertainty. b. 10 Discuss overlay analysis and network analysis. 6 a. Write short notes on: b. i) Virtual GIS 10 ii) Remote sensing and GIS data integration iii) Land suitability evaluation **UNIT-IV** Write short notes on: 7. 20 ii) Hyper spectral remote sensing i) Global position system iv) GIS - software's - an overview iii) Buffer zone analysis 20 What are the describable characteristics of a data management system? 8.



UNIT - V

9 a.	Write short notes on:				
	i) Digital image classification	10			
	ii) Radiametric correction				
b.	Discuss the components of a database management sysetm.	10			
10 a.	Write short note on:				
	i) Components of database evalution	10			
	ii) Discuss few important applications of GPS (Global Position System)				
b,	i) List the advantages of GIS.				
	ii) Scanners and Digitizers in data acquision	10			

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Dr. N. L. MURALI KRISHNA

Controller Of Examinations

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