

May-June 2026		
(B. Tech) Program: Information Technology Scheme III		
Regular Examination: TY Semester: VI		
Course Code: ITDLC6033	Course Name: Geographical Information System [GIS]	
Date of Exam: 22/05/2026	Duration: 02.5 Hours	Max. Marks: 60

Instructions:				
(1) All questions are compulsory.				
(2) Draw neat diagrams wherever applicable.				
(3) Assume suitable data, if necessary.				
Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Explain the concept of RADAR and LIDAR in brief.		CO1	U
b)	Describe the critical need for data quality in GIS applications.		CO3	U
c)	Describe the importance and features of Google Earth Engine.		CO5	U
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Explain RMSE (Root Mean Square Error) in georeferencing and its significance.		CO4	U
b)	Explain the concept of data integration in GIS.		CO5	U
c)	Describe the role of satellite imagery in analyzing road accidents and identifying accident-prone areas.		CO6	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Describe measurement functions in GIS and compare distance/area measurement in raster vs vector systems.		CO4	U
b)	Explain the different types of remote sensing data products.		CO1	U
c)	Describe different digital image data formats with suitable diagrams.		CO2	U
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	Discuss various sources of data errors in GIS and their impact on results.		CO3	U
b)	Define Remote Sensing and explain the complete remote sensing process with a neat diagram.		CO1	U
c)	Explain Conic Projection in detail. When is it preferred? Describe tangent and secant cases.		CO4	U