CLASS: M.SC   SEMESTER : I
BRANCH: GEOINFORMATICS   SESSION : MO/22

SUBJECT: GI504R1 ADVANCED IMAGE ACQUISITION & INTERPRETATION FOR ENVIRONMENTAL MAPPING
TIME: 03 HOURS   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. **Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates**

Q.1(a)	Describe the differences between igneous, sedimentary, and metamorphic rocks.	[CO1, BL2]	[6]
Q.1(b)	Discuss the different elements of an anticline with the help of a suitable diagram.	[CO1, BL2]	[4]
Q.2(a)	Two different surface features show similar tones and textures on the image of a specific spectral band acquired in a particular season. Determine the spectral band and two surface features. Justify your answer with suitable reasons. [CO2, BL5]		[6]
Q.2(b)	Determine two surface features that would show different tones but similar textures on the image of the thermal infrared band in a particular season. Justify your answer with suitable reasons.[CO2, BL5]		[4]
Q.3(a)	Write different online satellite data sources. Explain any one online satellite data source in detail. [CO3, BL1]		[4]
Q.3(b)	Differentiate between USGS GloVis and Bhuvan.	[CO3, BL5]	[3]
Q.3(c)	What are the applications of Sentinel data?	[CO3, BL3]	[3]
Q.4(a)	What is the full form of LIDAR? What is the name of the popular LIDAR data format?	[CO4, BL1]	[2]
Q.4(b)	Write the main differences between LIDAR and RADAR.	[CO4, BL5]	[3]
Q.4(c)	What is IMU? Explain the details of its components.	[CO4, BL4]	[5]
Q.5(a)	Write the importance of different sensors.	[CO5, BL2]	[2]
Q.5(b)	What is GRACE sensor? Write its applications.	[CO5, BL1]	[3]
Q.5(c)	Describe the importance of high spatial and temporal resolution data.	[CO5, BL5]	[5]

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