

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: M Sc
BRANCH: Geoinformatics**

**SEMESTER : I
SESSION : MO/2025**

SUBJECT: GI503 DIGITAL CARTOGRAPHY AND GPS

TIME: 3 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. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Write considerations for an effective digital map.	[5]	[CO1] [BL-3]
Q.1(b)	“Conical projections are appropriate to represent the Polar regions”, Comment	[5]	[CO2] [BL-4]
Q.2(a)	Defining DPI and Scale, bring out the relationship between pixel size with scale.	[5]	[CO2] [BL-2]
Q.2(b)	What is the importance of non-spatial data in Digital Cartography, Explain.	[5]	[CO3] [BL-2]
Q.3(a)	Write a note on “the language of Cartography”.	[2]	[CO1] [BL-3]
Q.3(b)	Giving an example, explain how statistical data be represented on a Digital Map.	[3]	[CO3] [BL-4]
Q.3(c)	Explain “Map Lettering”.	[5]	[CO1]
Q.4(a)	Explain NAVSTAR GPS satellite transmissions and Pseudorandom Noise Codes	[5]	[CO4] [BL-3]
Q.4(b)	What is DOP? Explain various DOP’s and effect of satellite geometry on positioning accuracy.	[5]	[CO4] [BL-3]
Q.5(a)	Differentiate between WGS-84 and Everest 1956 datum giving suitable diagram.	[5]	[CO5] [BL-3]
Q.5(b)	What is the Wide Lanning? Explain Rapid static method and its application.	[5]	[CO5] [BL-3]

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