

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

**CLASS: MTECH
BRANCH: REMOTE SENSING**

**SEMESTER : I
SESSION : MO/2024**

SUBJECT: RS511 AERIAL AND SATELLITE PHOTOGRAMMETRY AND IMAGE INTERPRETATION

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.

		CO	BL
Q.1(a)	How are interpretation keys developed? Classify	[5]	CO1 BL4
Q.1(b)	How is photogrammetric interpretation made for Ocean and Coastal monitoring? Explain	[5]	CO1 BL3
Q.2(a)	Why does the following problem have no solution? Solve and interpret the result. For a ground of dimension 15km x 10km, calculate the number of aerial photographs. Data given: Format Size 23x23 cm; Scale 1:100000; Side Lap 15%, End Lap 60%	[2+5]	CO2 BL4
Q.2(b)	Bring out the difference between absolute and differential parallax.	[3]	CO3 BL4
Q.3(a)	An aerial photo was taken with a camera of focal length of 20cm over an area having average elevation of 1000m. What should be height of the Aircraft from MSL if the aerial photo must be of scale 1:10000.	[5]	CO3 BL5
Q.3(b)	Explain different Orientation Concepts in Photogrammetry.	[5]	CO3 BL2
Q.4(a)	Explain Ortho Rectification with appropriate Diagram	[5]	CO4 BL2
Q.4(b)	What are the advantages and disadvantages of Aerial Photogrammetry and Satellite Photogrammetry.	[5]	CO4 BL5
Q.5(a)	How does the UAVs help a farmer? Explain the various possibilities.	[5]	CO5 BL3
Q.5(b)	Discuss any one software used to process UAV acquired images	[3]	CO5 BL2

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