JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make-up Examination-Nov-2025

COURSE CODE(CREDITS): 22B1WCE731 (3) MAX. MARKS: 25

COURSE NAME: REMOTE SENSING AND GEOMATICS

COURSE INSTRUCTORS: Akash Bhardwaj MAX. TIME: 1 Hour 30 Minutes

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Note:Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Calculator is allowed.

Q.No	Question	CO	Marks
Q1 (a)	Explain various types of orbits used in Remote Sensing satellites with suitable examples. Write various characteristics of a sensor used in Remote Sensing.	CO 2	4
Q1 (b)	Given an aerial photograph, how would you identify the principal point and transfer it to adjacent photographs to find the CPP? Explain with figure.	CO 2	4
Q2 (a)	Differentiate between analog and digital images in terms of data representation and applications.	CO 3	3
Q2 (b)	Compare standard FCC with natural color composites in terms of applications.	CO 3	3
Q2 (c)	Explain how contrast stretching improves the interpretability of satellite images.	CO 3	2
Q3 (a)	A Landsat image pixel shows $DN = 900$at a sun elevation angle of $\alpha = 20°$. Find the corrected value.	CO 3	1
Q3 (b)	A pixel shows $DN = 1500$on day $d = 200$. Find the corrected DN'using the Earth–Sun distance formula.	CO 3	2
Q4 (a)	Suppose an aerial survey is conducted at two different flight heights with the same focal length camera. Which photograph will show high resolution and why?	CO 2	3
Q4 (b)	Explain and draw the process of Remote Sensing in detail.	CO 2	3

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