

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

B.Tech-VII Semester

COURSE CODE (CREDITS): 22B1WCE731 (3)

MAX. MARKS: 15

COURSE NAME: REMOTE SENSING AND GEOMATICS

COURSE INSTRUCTORS: Akash Bhardwaj

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

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

Q.No	Question	CO	Marks
Q1	A satellite sensor has the following specifications: <ul style="list-style-type: none">• Spatial resolution: 10 m• Spectral resolution: Visible, NIR and Radio waves• Swath width: 60 km• Temporal resolution: 5 days Discuss the suitability of this sensor in terms of its characteristics and possible applications.	2	4
Q2	Explain the difference between geostationary orbit and sun-synchronous orbit with suitable diagrams.	1	3
Q3.	What are atmospheric windows and why are they important in remote sensing?	1	2
Q4.	A calm water body and a dense forest canopy are imaged by a satellite sensor. Discuss how specular and diffuse reflection will differ in these two cases.	1	3
Q5	Discuss the suitability and applications of aerial photographs in military/defence reconnaissance and disaster management.	2	3