

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2024

B.Tech-VII Semester

COURSE CODE (CREDITS): 22B1WCE731 (3)

MAX. MARKS: 35

COURSE NAME: Remote Sensing and Geomatics

COURSE INSTRUCTORS: Akash Bhardwaj

MAX. TIME: 2 Hours

*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) What is the Quadtree structure, and how is it applied in spatial data analysis? Explain in detail with a figure. (b) What is a TIN and where is it typically used?	CO 3	5
Q2	(a) What is a Geographic phenomenon? Differentiate between geographic field and object with example. (b) What is GIS? How and when this concept was born? Write about main functions of GIS.	CO 2,3	6
Q3	(a) What is attribute data? Explain its role in spatial data models? (b) Write the advantages of using aerial imagery and satellite imagery over ground observations.	CO 1,3	4
Q4	(a) What is GPS? How and by whom it is started. Explain the various details of GPS working. (b) Explain the segments of GPS. Write about the factors that affect GPS	CO 2,3	8
Q5	(a) What are the various target parameters on which SAR backscatter depends. Explain them with examples. (b) Differentiate between co-polarized and cross-polarized signals.	CO 3	5
Q6	(a) Differentiate between TCC and FCC. Explain which one has more advantages in field of remote sensing. (b) Differentiate between crab and drift. (c) What are the various types of platforms used in remote sensing? Explain them with examples.	CO 1	7