

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2024

B.Tech-VII Semester

COURSE CODE (CREDITS): 22B1WCE731 (3)

MAX. MARKS: 25

COURSE NAME: REMOTE SENSING AND GEOMATICS

COURSE INSTRUCTORS: AKASH BHARDWAJ

MAX. TIME: 1 Hour 30 Minutes

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 | Differentiate between an analog and digital image. Explain band interleave by line with figure. | CO 2,3 | 4 |
| Q2 | What are ground control points? How they are taken on image? Explain linear stretch in image processing. | CO 1,2 | 3 |
| Q3 | Write causes of Radiometric errors in remote sensing. Explain methods for correcting dropped line error. Explain roll error in aerial photograph with figure. | CO 3 | 4 |
| Q4 | Define and discuss how tone, shape and association play an important role in interpretation of images. | CO 3 | 3 |
| Q5 | What is NDVI? Write its formula and applications. What do different values of NDVI indicate? | CO 2,3 | 4 |
| Q6 | Explain RADAR concept with figure. Calculate the length of antenna required for azimuth resolution of 0.5 m, range 1000 km and wavelength 5 cm. | CO 2 | 4 |
| Q7 | Explain spotlight mode in SAR. How dielectric constant effect the backscatter from various objects? | CO 3 | 3 |