C   Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code: U1405

B.E. / B.Tech DEGREE EXAMINATION, APRIL 2024

Professional Elective

Civil Engineering

21UCEV405- PHOTOGRAMMETRY

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. The lens used in aerial photogrammetry is having a maximum coverage capacity of _____ (in angles)   CO1 - U

   (a) 93^0 (b) 63^0 (c) 53^0 (d) 98^0

2. Difference in parallax can be obtained due to_____   CO1 - U

   (a) Distance between zenith   (b) Distance between bearing

   (c) Distance between azimuth   (d) Distance between points sights

3. ………………have stable and precisely known internal geometries and very low lens distortions.   CO1 - U

   (a) Metric   (b) Non metric   (c) Framed   (d) None of these

4. Assuming aero triangulation is completed, ortho photo creation still requires   CO1 - U

   (a) Camera unknown resolution   (b) A digital terrain model

   (c) Solution of pass point coordinates   (d) 2-D affine transformation based on fiducial mark measurements

5. Which of the following is the pixel value of grey scale image?   CO1 - U

   (a) 0 to 1   (b) 0 to 5   (c) 0 to 4   (d) 0 to 0.5

PART – B (5 x 3= 15 Marks)

6. Explain the different Multiple frame camera in photogrammetry.   CO1 - U

7. Differentiate between vertical photographs and stereoscope.   CO3 - App

8. What do you mean Two-dimensional coordinate transformations?   CO1 - U

9. As a Civil Engineer segregate the considerations for DTM generation and Contour mapping.   CO3 - App

10. List the different principles of Satellite photogrammetry.   CO1 - U

PART – C (5 x 16= 80Marks)

11. (a) Interpret briefly about the various computations of flight planning.   CO3 - App   (16)

Or

(b) Identify the key features of Photographic overlaps.   CO3 - App   (16)

12. (a) Explain briefly about the Vertical photographs in detail.   CO1 - U   (16)

Or

(b) Explain in detail about Photo coordinate measurement in detail.   CO1 - U   (16)

13. (a) Demonstrate the salient features of Stereo plotters Classification in detail.   CO3 - App   (16)

Or

(b) Interpret the Three-dimensional conformal coordinate transformation in detail.   CO3 - App   (16)

14. (a) Explain the various GPS Aero triangulations in detail.   CO1 - U   (16)

Or

(b) Explain about DTM generation and Contour mapping in detail.   CO1 - U   (16)

15. (a) Construct the role of the Photogrammetric Scanner in Digital Photogrammetry.   CO3 - App   (16)

Or

(b) Analyze briefly about various principles of satellite photogrammetry in detail.   CO3 - App   (16)

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