ANNA UNIVERSITY – 2007
B.E/B.TECH DEGREE EXAMINATION
CARTOGRAPHY (ELECTIVE)
(CIVIL ENGINEERING)

TIME-3HOUR
MARK-100

ANSWER ALL THE QUESTIONS

PART A — (10 ´ 2 = 20 MARKS)

1. Name any two implications of Cartography.

2. State the different modes of classification of maps.

3. Determi ne the value of radius of curvature along meridian Rm at a point A situated in geodetic latitude of 400 N.

4. Distinguish between Geodetic Azimuth and Astronomic Azimuth.

5. Knowing the latitudes of any two points, write an equation to the convergency of meridian in seconds of arc.

6. Name any two methods of thematic information extraction by image processing.

7. What is psychological scaling method?

8. State Topfer's Radical law.

9. Where do you use a high-pass local filter?

10. Define density slicing.

PART B — (5 ´ 16 = 80 MARKS)

11. (a) At a point in latitude 55046'12" N, the altitude of the sun's centre was found to be 23017'32" N at 5 hour 17 min. pm (G.M.T.) The horizontal angle of the reference mark and the sun's centre was 68024'30". Find the azimuth of R.M.

12. (a) Explain the various impacts of changing technology on development of maps.

(b) State the merits and demerits of equal area projections and azimuthal projections.

(OR)

(a) Bring out the salient features of universal traverse mercarator grid systems.

(b) How do you overcome the drawbacks of universal polar stereographic grid system?

13. (a) What are push broom instruments and whisk broom instruments.

(b) How various remote sensing platforms will help cryptography.

(OR)

(a) What are the data models for digital cartographic information? Explain any two.

(b) How stereoscopic imaging differs to digital image processing.

14. (a) Explain with aid of sketches, how the map reproducing technique differs for
(i) a few copies & (ii) for many copies.

(b) How do you involve the printer for proofing.

(OR)

(a) How do you employ simulation techniques to interactive mapping.

(b) With usual notation, derive the Munsell valve – reflectance equation.

15. (a) Write the differences between CIELAB and CIELUV colour models and quantify them with the aid of equation.

(b) How do you compute CIE chromatically co-ordination.

(OR)

(a) How the errors in chloropleth mapping can be evaded.

(b) How do you achieve readability of multivariate maps.