Geographic Information System (GIS)

CEL747 – Major Test   5 May, 2007

Q. 1   a) What is the role of interpretation in GIS?
b) Out of the work you have pursued in the Lab assignments during the semester, list the instances where the interpolation has been used and also state the type of interpolation method(s) deployed?

b) Write short note on Kriging?

(2,3,3)

Q. 2   a) What do you understand by normalisation in databases? What is the role of normalization? How many normal forms are there? Write briefly about them.

b) Construct an ER diagram for the Hospital application of the IIT Delhi system

(3,5)

Q. 3   a) Explain the construction of a TIN model?

b) Explain various steps used for delineating a watershed using the D-8 approach and the following grid.

58	52	69	71	58	49
54	67	56	49	46	50
49	53	44	37	38	48
44	58	55	22	31	24
56	61	47	21	16	19
74	53	34	12	11	12

(3,5)

Q. 4   a) What is the role of projection systems in the GIS? Which are the attributes that are used for classifying the projection systems?
b) Explaing the UTM projection system.   (4,4)

Q. 5   Describe briefly the following:

(a) Differential GPS
(b) Conical Projection system
(c) Toplogical data model
(d) Digitization errors   (2x4)