

Total No. of Questions : 8]

SEAT No. :

P728

[Total No. of Pages : 2

[5870]-1013

T.E. (Civil)

**REMOTE SENSING & GEOGRAPHIC INFORMATION
SYSTEM**

(2019 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Assume suitable data, if necessary.*
- 4) *use of electronic pocket calculator is allowed in the examination.*
- 5) *Neat diagrams must be drawn wherever necessary.*

- Q1)** a) Describe Global Navigation satellite system in detail. [6]
b) Explain the necessity of GNSS in various fields. [6]
c) Compare different GNSS systems throughout the world. [5]

OR

- Q2)** a) Define IRNSS and illustrate its structure. [6]
b) Define DGPS. Write sources of errors of DGPS. [6]
c) Write Advantages of GPS. [5]

- Q3)** a) List the image interpretation keys and explains any two in detail with the help of necessary diagram. [6]
b) Describe digital image classification (supervised & unsupervised). [6]
c) Define Triangular Irregular network Model (TIN) and its applications. [6]

OR

- Q4)** a) What is Digital Image Processing? What are the most common image processing functions. [6]
b) Differentiate between Visual and Digital image interpretation. [6]
c) State the application of DEM. [6]

P.T.O.

- Q5)** a) Write in detail about various components of GIS. [6]
b) Illustrate Cloud computing with types and applications. [6]
c) Define Database? Name the types of data base. [5]

OR

- Q6)** a) Write a note on fundamentals of Cartography and map creation in GIS. [6]
b) Define Geographical Information system and state spatial data types. [6]
c) Enlist the applications of GIS in Civil Engineering & Explain any one in detail. [5]

- Q7)** a) Define Raster and Vector Data types. Explain with neat diagram. [6]
b) Explain the application of GIS in Demarcation of Dam Catchment. [6]
c) What is Georeferencing of GIS data? And explain its importance in the field of GIS? [6]

OR

- Q8)** a) Enumerate different Attribute Data models and explain any one of them. [6]
b) Write GIS data types and its representation. [6]
c) Explain the application of GIS in Urban Planning. [6]

