SEAT No. :

P728

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[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]**

<p style="text-align:center">OR</p>

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]**

<p style="text-align:center">OR</p>

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]**

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