R18 Regulation *Subject code:* 2P7AB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VII Semester Supplementary Examinations, July 2022

REMOTE SENSING & GEOGRAPHIC INFORMATION SYSTEM

(CIVIL ENGINEERING)

Maximum Marks: 70 Date:06.07.2022 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

1 Differentiate Vertical and tilted Photograph .
2 What is stereoscope?
3 Give notes on Active sensors and Passive Sensors used in remote sensing.
4 Explain energy interaction with atmosphere.
5 Compare Spatial Data and Non Spatial Data.
6 What are the four commonly used map projections in GIS?
7 What is Shape file? Explain Its Significance.
8 What are the advantages of Vector data formats over Raster data formats?
9 What are the different methods of data input in GIS?
10 Explain 'On screen digitization'.

Part-B

Answer All the following questions. (5X10M =50Marks)

11 A. Give the classification of Aerial Photographs with neat sketches. (7M)

B. Define Photo Scale and map Scale . (3M)

OR

12 A. What are fiducial marks? What are the uses of fiducial points (3M)

B. What is relief displacement? How to measure height from an aerial photo? (7M)

13 A. Explain briefly the types of resolutions of a sensor used in Remote Sensing. (5M)

B. Explain the spectral signature curve for vegetation, water and soil with a neat sketch? (5M)

OR

14 A. Differentiate active and passive remote sensing. (5M)

B. Explain about elements of image Interpretation with examples. (5M)

15 A. Explain the components of GIS. (5M)

B. What are the various types of errors during the digitization? (5M)

OR

16 Define datum. Explain UTM with a neat sketch. (10M)

17 A. What is topology? Describe with sketches: types of topology established based on entities. (7M)

B. Discuss about Spaghetti vector data model. (3M)

OR

18 A. Explain data structure with an example. (3M)

B. Explain Geobase data model. (7M)

19 A. What are the elements of Raster Data Model? Explain (5M)

B. Explain the steps involved to integrate Raster data and Vector Data (5M)

OR

20 A. Explain how you will store physical features in raster format with examples. (5M)

B. Explain run length encoding and raster chain method of data compression. (5M)

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