

**R18**

**Code No: 157EZ**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, February/March - 2022**

**REMOTE SENSING AND GIS**

**(Common to EEE, CSE, IT)**

**Time: 3 Hours**

**Max. Marks: 75**

**Answer any five questions  
All questions carry equal marks**

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- 1.a) What is electromagnetic spectrum? How is it useful in Remote Sensing?
- b) What is the need of terrain evaluation? How do you interpret in Remote Sensing? [7+8]
- 2.a) What are the different types of platforms and sensors in Remote sensing? Explain.
- b) Explain the concept of digital image processing. [8+7]
- 3.a) Explain in brief the components of GIS.
- b) What is Map scale? What are different types of scales? [7+8]
- 4.a) Discuss in detail about coordinate systems and map projection with neat illustration.
- b) Discuss the applications of GIS in real life. [8+7]
- 5.a) Explain the Database structure models.
- b) What is GIS data model? Explain its importance. [7+8]
- 6.a) Describe the entity-relationship model.
- b) Differentiate between vector and raster data structure. [7+8]
- 7.a) Explain the different sources of error in GIS.
- b) Discuss the spatial interpolation techniques and state its importance. [7+8]
- 8.a) Discuss the evaluation of alternative systems while implementing a GIS.
- b) How is GIS useful in road network planning? Provide an example. [8+7]

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