PAPER ID-420258

Roll No: | | | | | | | | | | | | |

BTECH
(SEM VI) THEORY EXAMINATION 2021-22
GIS & REMOTE SENSING

Time: 3 Hours   *Total Marks: 100*
Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.**   2*10 = 20

Q.no	Questions	Marks	CO
(a)	DefineRemote sensing (RS).	2	1
(b)	Briefly discuss about the Basic component of Remote sensing (RS).	2	1
(c)	Define Sensors.	2	2
(d)	Discuss about the concept of Contrast ratio.	2	2
(e)	Briefly discuss about the Photogrammetry.	2	3
(f)	What do you mean by Satellite remote sensing?	2	3
(g)	What is the use of Microwave remote sensing?	2	4
(h)	Define Spatial data.	2	4
(i)	What do you understand by the Data editing?	2	5
(j)	Discuss about the Map overlay in GIS.	2	5

SECTION B

2. **Attempt any *three* of the following:**   10*3 = 30

Q.no	Questions	Marks	CO
(a)	Explain in detail about the application of Remote sensing and GIS for the management of land and water resources.	10	5
(b)	Write short notes on the following: (i) Types of Aerial photographs (ii) Possible causes of Low Contrast.	10	2
(c)	Differentiate between Unsupervised classification and Supervised classification under the Photogrammetry.	10	3
(d)	Describe the concept of Ground control for Aerial photography.	10	4
(e)	Describe theprinciples of Remote Sensing and its advantages and limitations.	10	1

SECTION C

3. **Attempt any *one* part of the following:**   10*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the Spatial data models and their Structures.	10	5
(b)	Explain about the requirements of Stereoscopic photographs.	10	2

4. **Attempt any *one* part of the following:**   10 *1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about thepossible use of Remote sensing (RS) techniques in assessment and monitoring of land and water resources.	10	1
(b)	Discuss about theimportant consideration in the identification of training areas in Photometry.	10	3

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5. **Attempt any *one* part of the following:** 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss in detail about the basic principle of Position determination with Global Positioning System (GPS).	10	4
(b)	Explain in detail about the various data formats of Satellite images.	10	5

6. **Attempt any *one* part of the following:** 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe the concept of planning End lap and Side lap Aerial photography.	10	2
(b)	What do you mean by the Energy interactions in the atmosphere and with the Earth's surface?	10	1

7. **Attempt any *one* part of the following:** 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Briefly discuss any two of thefollowing. (i) Multispectral Scanner. (ii) Whiskbroom (iii) Push-broom scanner	10	3
(b)	Write down about the principal applications of different wavelength regions in Remote sensing.	10	4