Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **14CE3044** | **Duration :** | **3hrs** |
| **Sub. Name :** | **REMOTE SENSING AND GIS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Write short notes on the following topics:  i. Spectral signature. ii. Stefan’s Boltzmann equation.  iii. Active and passive remote sensing. | CO1 | 12 |
| b. | Explain the components of ideal remote sensing with a neat sketch. | CO1 | 8 |
| (OR) | | | | |
| 2. | a. | Enumerate different types of image registration. | CO1 | 10 |
| b. | Recall the various remote sensing platforms and its applications. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Where do you use the following terms: back scattering , dispersion, absorption, transmission and reflection of waves. | CO1 | 8 |
|  | b. | Discuss in detail about the resolutions: Spectral, spatial, radiometric and temporal. | CO1 | 12 |
| (OR) | | | | |
| 4. | a. | What are the keys used in image interpretation? Explain. | CO1 | 10 |
|  | b. | Discuss with examples about the various map components. | CO1 | 10 |
|  |  |  |  |  |
| 5. | a. | Compare vector and raster data structures. | CO1 | 10 |
|  | b. | Explain the necessity of atmospheric correction of images and how it is done? | CO1 | 10 |
| (OR) | | | | |
| 6. | a. | Explain any three projections. | CO1 | 12 |
|  | b. | Explain the four basic procedures for inputting spatial data into a GIS. | CO1 | 8 |
|  |  |  |  |  |
| 7. | a. | Describe in detail about the buffering and overlay analysis in GIS. | CO1 | 12 |
|  | b. | Briefly explain the digital elevation modelling. | CO1 | 8 |
| (OR) | | | | |
| 8. | a. | Explain the application of GIS in groundwater modelling. | CO1 | 10 |
|  | b. | Explain the following   1. Site selection for artificial recharge. 2. Site selection for Reservoir construction. | CO1 | 10 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Discuss in detail about the image enhancement techniques. | CO1 | 15 |
|  | b. | Enumerate about object oriented database model. | CO1 | 5 |

ALL THE BEST