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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May – 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. | Explain the electromagnetic spectrum and the applications of various bands for specific studies. | CO1 | 12 |
| b. | How the resolution gets affected based on the image acquisition platforms. Discuss. | CO1 | 8 |
| (OR) | | | | |
| 2. | a. | Explain the Spectral reflectance curves for vegetation, soil and water. | CO1 | 12 |
| b. | Differentiate passive and active remote sensing. | CO1 | 4 |
| c. | Discuss the applications of radiometers? | CO1 | 4 |
| 3. | a. | Explain the characteristics to be considered while selecting sensors/bands for the satellite images used in studies? | CO1 | 10 |
|  | b. | Discuss in detail about the image processing techniques. | CO1 | 10 |
| (OR) | | | | |
| 4. | a. | Enumerate the various basic elements to be considered while  interpreting images? | CO1 | 15 |
|  | b. | How do you classify maps based on their applications? Discuss. | CO1 | 5 |
| 5. | a. | How do you explain GIS system with the components involved in it? | CO1 | 10 |
|  | b. | Explain the GIS processes with examples. | CO1 | 10 |
| (OR) | | | | |
| 6. | a. | Discuss the various features in a vector representation? Explain with examples. | CO1 | 10 |
|  | b. | Write the sources of error? How they are tackled with? | CO1 | 10 |
| 7. | a. | Explain the reclassification methods and its applications. | CO1 | 12 |
|  | b. | Query analysis- discuss with examples. | CO1 | 8 |
| (OR) | | | | |
| 8. | a. | Explain the terms: Kriging, inverse distance weighted | CO1 | 10 |
|  | b. | Discover shortest route between two given locations. Describe the procedure. | CO1 | 10 |
|  | | **Compulsory**: |  |  |
| 9. |  | Apply the various techniques of GIS in the following areas:  a. Landuse/landcover mapping.  b. Water quality modeling. | CO1 | 20 |

ALL THE BEST