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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

**Supplementary Examination – June – 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14EC2050** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BASICS OF SATELLITE COMMUNICATION** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Explicate Satellite orbital parameters with nesseccary digrams and mathematical expressions. | CO1 | 20 |
| (OR) | | | | |
| 2. | a. | Elucidate in detail about frequency band designation, services in satellite communication. | CO2 | 12 |
|  | b. | Reveal the minutiae about Range, Azimuth, elevation angles to satellite with nesseccary digrams and equations. | CO2 | 8 |
| 3. |  | Antennas for satellite communication - Portray the various types with neat sketches and reveal their technical characteristics. | CO1 | 20 |
| (OR) | | | | |
| 4. | a. | State your perception on power subsystem, discuss the importance of it in satellite communication. | CO3 | 10 |
|  | b. | Temperature monitoring and management in satellite system – Disclose the system. | CO3 | 10 |
| 5. |  | Discuss in detail about the factors for transmission impairments in satellite communication. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Enlighten in detail about the different parameters which contribute to system noise. | CO1 | 20 |
| 7. |  | Argue in detail about data encryption and decryption techniques in satellite communication. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | With precise diagrams, explicate about klystron crossfield devices. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Global positioning system – disclose your perception in detail with obligatory diagrams. | CO3 | 20 |

ALL THE BEST