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 :** | **16EC1001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ELECTRONICS FOR EVERYDAY LIFE** | **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. | Describe the biasing and characteristics of voltage regulator diode with neat diagram. | CO1 | 15 |
| b. | State the differences between forward bias and reverse bias. | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Paraphrase the process of N type and P type semiconductor formation with its covalent bond structure. | CO1 | 15 |
| b. | Compare covalent bond and ionic bond. | CO1 | 5 |
| 3. |  | Explain the characteristics of photo diode and LED. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Appraise on the characteristics of transistor in CB configuration with a clear explanation and relevant diagram.’ | CO1 | 20 |
| 5. | a. | Describe the operation of various logic gates with its symbol and truth table. | CO1 | 15 |
|  | b. | In a common base transistor circuit, the emitter current, IE is 10 mA and the collector current IC is 9.8 mA. Find the value of Base current,IB. | CO1 | 5 |
| (OR) | | | | |
| 6. | a. | Convert (11011010)2 to its equivalent octal, decimal and hexa decimal number. | CO1 | 12 |
|  | b. | State Demorgan’s law. | CO1 | 3 |
|  | c. | Represent Y=A**’**+B’**.**C+AB with a logic diagram. | CO1 | 5 |
| 7. |  | Design a 1x4 demultiplexer and draw its logic circuit. | CO1 | 20 |
| (OR) | | | | |
| 8. | a. | Draw the basic block diagram of communication system and explain each block. | CO2 | 12 |
|  | b. | Pictorially represent the embedded system. | CO2 | 8 |
|  | | **Compulsory:** |  |  |
| 9. |  | Comprehend on the role of IOT in smart transport. | CO3 | 20 |

ALL THE BEST