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 – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14EC2079** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Microprocessors and Microcontrollers** | **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. | With a neat sketch explain the functional block diagram of 8085 | CO1 | 20 |
| (OR) | | | | |
| 2. | a. | Write an assembly level program to convert a hexadecimal number to decimal number | CO2 | 10 |
|  | b. | Write an assembly level program to transfer a block of 10 numbers from memory location 4200 to the memory location 4600 | CO1 | 10 |
| 3. | a. | Write a assembly level program in 8051 to generate a square waveform of 1kHz and a sawtooth waveform of 50Hz using a crystal frequency of 12MHz | CO3 | 20 |
| (OR) | | | | |
| 4. | a. | With examples explain the various Addressing Modes available in 8051. Mention the size of each instruction corresponding to the addressing modes | CO3 | 20 |
| (OR) | | | | |
| 6. | a. | Discuss about the interfacing of 8279 keyboard and display interface with microcontroller | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | Draw the schematic to connect a 16kB EPROM and 8kB RAM using 8051 Microcontroller and explain the same | C03 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | With relevant diagram explain Stepper motor control using microcontroller | CO3 | 20 |

ALL THE BEST