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

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**End Semester Examination – Nov/Dec – 2018**

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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)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | |  | | --- | | State the color coding process of resistor with suitable examples. | | CO1 | 10 |
| b. | |  | | --- | | Discuss in detail about mica and plastic capacitors. | | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | |  | | --- | | Describe the biasing and characteristics of rectifier diode with neat diagram. | | CO1 | 15 |
| b. | |  | | --- | | Mention few applications of PN Junction diode. | | CO1 | 5 |
|
| 3. | a. | |  | | --- | | Describe the operation of NPN transistor in detail. | | CO2 | 14 |
| b. | |  | | --- | | Derive the relationship between α and β of a transistor. | | CO2 | 6 |
| (OR) | | | | |
| 4. |  | |  | | --- | | Appraise on the characteristics of transistor in CB configuration with a clear explanation and relevant diagram. | | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | |  | | --- | | Write a brief note on XOR and XNOR gate with necessary diagrams and truth table. | | CO2 | 10 |
| b. | |  | | --- | | Convert (473)10 to its equivalent octal, binary and hexa decimal number. | | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | |  | | --- | | Pictorially represent the NAND and NOR equivalent of AND, OR and NOT. | | CO2 | 15 |
| b. | |  | | --- | | Define the current gain of a common base configuration. | | CO2 | 5 |
|  |  |  |  |  |
| 7. | a. | |  | | --- | | Compare and contrast 2G, 3G and 4G techniques. | | CO3 | 6 |
| b. | |  | | --- | | Discuss briefly about the applications of Wi-Fi and Bluetooth. | | CO3 | 14 |
| (OR) | | | | |
| 8. |  | |  | | --- | | Design a 4x1 Multiplexer with a neat diagram. | | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | |  | | --- | | Comprehend on the role of IOT in smart health care. | | CO3 | 20 |