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



**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **17ME3002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **COMPUTER APPLICATIONS IN DESIGN** | **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. | Derive Bresenhem’s Line Algorithm. | CO1 | 10 |
| b. | Derive MIDPOINT Circle algorithm. | CO1 | 10 |
| (OR) | | | | |
| 2. | a | Discuss in detail about any Display device. | CO1 | 10 |
|  | b | Compare random and raster display. | CO1 | 10 |
|  |  |  |  |  |
| 3. |  | What is interactive programming? Explain its various applications. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Explain the following transformations followed in 2D computer graphics using individual examples.  i. Translation ii. Scaling iii. Rotation. | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | What is hidden line removal? Explain. | CO2 | 10 |
|  | b. | Explain containment and area oriented algorithm. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | What is diffusive and specular reflection? | CO2 | 10 |
|  | b. | What is shading? Explain any one model of shading. | CO2 | 10 |
|  |  |  |  |  |
| 7. |  | What is assembly modeling? With an example explain ‘bottom up’ and Top down assembly approach. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Explain the various mating conditions with neat sketches. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. | a. | Explain any one method of rapid prototyping methods with neat sketches. | CO3 | 10 |
|  | b | What is IGES format? | CO3 | 10 |

ALL THE BEST