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

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

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| **Code :** | **14CS2006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **COMPUTER GRAPHICS** | **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. | Demonstrate the homogeneous coordinate system for 2-D basic transformation. | CO2 | 15 |
| b. | Illustrate the transformation from world coordinates to the window coordinates. | CO3 | 5 |
| (OR) | | | | |
| 2. | a. | List and paraphrase the basic geometric objects. | CO1 | 10 |
| b. | Express the composition of 2-D transformation diagrammatically. | CO2 | 10 |
|  |  |  |  |  |
| 3. |  | Demonstrate the senario for the two cases in mid point line drawing algorithm diagrammatically. | CO3 | 20 |
| (OR) | | | | |
| 4. |  | Explain the different cases of Cohen-Sutherland line clipping algorithm with neat diagram. | CO3 | 20 |
|  |  |  |  |  |
| 5. |  | Draw a scenegraph for a *Super Mario* game. Express the java 3-D syntaxes for developing a scenegraph. | CO3 | 20 |
| (OR) | | | | |
| 6. |  | Explain the different projections in 3-D graphics. Write the java 3-D syntaxes for different projections. | CO2 | 20 |
|  |  |  |  |  |
| 7. | a. | Define the clipping volume. | CO1 | 5 |
| b. | Write the different principles of algorithms for visible surface determination. | CO1 | 15 |
| (OR) | | | | |
| 8. |  | Demonstrate the different image precision techniques. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain about the stereoscopic viewing. | CO3 | 10 |
| b. | Write about the dynamic surfaces. | CO2 | 10 |