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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

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

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12IT326** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Computer Animation** | **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. | Compare and contrast between see through, hidden line and shaded surface rendering approaches. | CO1 | 8 |
| b. | Discuss about the subsequent shading algorithms that is devoted to the calculation of shading on the surface.  Faceted shading. (ii) Gouraud shading. (iii) Lambert shading. | CO2 | 12 |
| (OR) | | | | |
| 2. |  | Discuss how a ray casting method can be applied to cast a ray through the pixels of the screen. Also add a note on how a Z buffer algorithm is used to generate 2D image from 3D picture. | CO3 | 20 |
| 3. |  | What is the importance of using interpolation? Briefly discuss about the various interpolation types which is used to generate discrete points. | CO2 | 20 |
| (OR) | | | | |
| 4. | a. | What is the disadvantage of patches? How patch stitching technique can be used as a solution to the problem? | CO1 | 10 |
|  | b. | Explain in detail about Procedural Modeling. Write the pseudo code to generate a forest model. | CO2 | 10 |
| 5. |  | Elucidate on the different advanced texturing techniques. | CO3 | 20 |
| (OR) | | | | |  |  |
| 6. | a. | What is global atmospheric effect? | CO1 | 5 |
|  | b. | Describe about the categories of lights used to model a 3D scene. | CO2 | 15 |
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| 7. | a. | With an example discuss how soft body dynamics produces a change in the shape of an object. | CO1 | 5 |
|  | b. | Discuss about the metaball technique which creates surfaces that automatically blend together. | CO2 | 15 |
|  | | (OR) |  |  |
| 8. |  | Discuss how movement and deformation controls are produced with the help of movement and deformation controls. | CO2 | 20 |
|  |  | **Compulsory:** |  |  |
| 9. | a. | Elucidate the various issues that comprise in the preproduction phase of an animation. | CO1 | 17 |
|  | b. | Differentiate between absolute and relative transformation. | CO2 | 3 |

ALL THE BEST