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 – April/May – 2017**

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| **Code :** | **14MT2002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **DIGITAL COMPOSITING** | **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. | When sending an Image for print with a setting of “300 DPI”, What is the meaning of “300 DPI”? | CO1 | 2 |
| b. | Explain why often objects that are far away seem to have lost their colour? | CO3 | 3 |
| c. | Explain the importance of Bit Depth and the application of Normalization in images used in compositing? | CO1 | 5 |
| d. | With Neat diagrams explain the various types of Chroma Subsampling. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | In a 2K image, Give the horizontal resolution of the image. | CO1 | 2 |
| b. | What is a Z Depth Image? | CO2 | 3 |
| c. | Draw the RGB colour Cube and name its parts. | CO1 | 5 |
| d. | List out and explain the various operations that can be used to increase the brightness of an image. | CO1 | 6 |
| e. | What is a Median Filter? Give its application in Image processing. | CO1 | 4 |
| 3. | a. | What is a Wrap around image? Where is it used in Compositing? | CO3 | 4 |
|  | b. | Define:Mask. Give an example application. | CO3 | 5 |
|  | c. | Explain the process of keying based on Luminance. | CO3 | 5 |
|  | d. | Explain the various stages involved in Morphing an Image onto another. | CO1 | 6 |
| (OR) | | | | |
| 4. | a. | Define: Image Warping. | CO3 | 2 |
|  | b. | Explain the Following Image Multisource operations:  Over, Screen, In, Atop and Mix. | CO1 | 10 |
|  | c. | How was the Colour Difference method used in the film Ben Hur to separate the characters from the background. Explain. | CO3 | 8 |
| 5. | a. | Name and explain the theories that explain why humans perceive continuous motion even though they are actually seeing consecutive still frames when watching movies. | CO1 | 4 |
|  | b. | What are keyframes? What are their applications in Compositing? | CO1 | 6 |
|  | c. | List and Explain the various types of User Interfaces found in Composting software. | CO1 | 10 |
| (OR) | | | | |
| 6. | a. | Explain the various techniques that help in Retiming a given footage sequence. | CO1 | 12 |
|  | b. | What are the things to note and do when one is about to choose a feature to track? | CO1 | 8 |
| 7. | a. | Where does one find Non-Square Pixels? How does one handle them? | CO3 | 4 |
|  | b. | List and Explain the various Film Formats available in the Industry with their applications. | CO1 | 16 |
| (OR) | | | | |
| 8. | a. | Explain the process of converting PAL footage to NTSC Footage. | CO1 | 6 |
|  | b. | Explain the procedure to light wrap an image onto another background image. | CO3 | 8 |
|  | c. | On Location, List out the parameters the VFX supervisor must make a note off with regard to lighting. | CO3 | 6 |
|  | | **Compulsory**: |  |  |
| 9. | a. | What is a Histogram? Draw a sample Histogram with parts. | CO1 | 5 |
|  | b. | With a Neat Flow chart Explain the format conversion pipeline followed in the VFX industry from source footage to final projection format. | CO1 | 15 |

ALL THE BEST