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

G:\logo and QP Template\logo 3 Feb 2018 final.tif

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

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14VC3001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **3D VIDEO AND GRAPHICS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain the processing scheme of 3D video production and applications with a block diagram. | CO1 | 15 |
| b. | List the single and multi-camera requirements for 3D video production. | CO3 | 5 |
| (OR) | | | | |
| 2. |  | Delineate the behavior unit model for content based representation and edition of 3D video. | CO2 | 20 |
|  |  |  |  |  |
| 3. |  | Elaborate the techniques for 3D shape reconstruction from Multi-view video data for 3D video production. | CO3 | 20 |
| (OR) | | | | |
| 4. | a. | Illustrate the problem specifications, basic ideas and assumptions for 3D dynamic lighting environment estimation with reference objects. | CO3 | 14 |
| b. | Explain the concept of texture mapping with an example. | CO2 | 6 |
|  |  |  |  |  |
| 5. | a. | Explain the topic: ‘Visualization of 3D video’ in detail. | CO1 | 16 |
| b. | Explain the term stereoscopic display. | CO3 | 4 |
| (OR) | | | | |
| 6. | a. | Explain in detail about subjective visualization by gaze estimation from 3D video. | CO2 | 16 |
| b. | State the need for camera calibration. | CO3 | 4 |
|  |  |  |  |  |
| 7. | a. | Explain the techniques involved in advanced 3D video streaming applications. | CO3 | 15 |
| b. | Briefly outline the virtual reality applications with examples. | CO3 | 5 |
| (OR) | | | | |
| 8. | a. | Detail on model-based complex kinematic motion estimation. | CO2 | 12 |
| b. | Neatly sketch the block diagram of 3D video production. | CO3 | 8 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Illustrate on the methods to fabricate the world of Visual Information Media Technologies with required diagrams. | CO1 | 20 |