



LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – VISUAL COMMUNICATION

THIRD SEMESTER – APRIL 2025



PVC3MC01 – IMMERSIVE EXPERIENTIAL DESIGN

Date: 24-04-2025

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

SECTION A – K1 (CO1)

Answer ALL the questions

(5 x 1 = 5)

1 Match the following

- | | | |
|----|----------------|--|
| a) | Stereoscopy | 1) Creating 3D models from photographs. |
| b) | Photogrammetry | 2) Simultaneous Localization and Mapping. |
| c) | SLAM | 3) Producing depth illusion using two images. |
| d) | Metaverse | 4) A headset used for Virtual Reality experiences. |
| e) | Oculus | 5) Integration of Virtual and Augmented Reality. |

SECTION A – K2 (CO1)

Answer ALL the questions

(5 x 1 = 5)

2 True or False

- | | |
|----|---|
| a) | Augmented Reality (AR) does not require any external hardware for experience. |
| b) | Photogrammetry is a technique to extract 3D information from photographs. |
| c) | Virtual Reality (VR) and Cinema have identical content delivery methods. |
| d) | Mixed Reality is a hybrid technology that blends AR and VR. |
| e) | Unity is exclusively used for gaming applications. |

SECTION B – K3 (CO2)

Answer any THREE of the following

(3 x 10 = 30)

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| 3 | Predict how Mixed Reality (MR) could be applied in classrooms or hospitals. What improvements could it bring to learning or patient care? |
| 4 | Identify the hardware components of AR. |
| 5 | Discuss the key differences between CGI and live-action content creation for immersive media. |
| 6 | What are stereo cameras, and how are they used in Virtual Reality (VR)? |
| 7 | Interpret the role of GHOST (Graphical Hardware Operating System Technology) in creating virtual environments. How does it improve user interaction? |

SECTION C – K4 (CO3)**Answer any TWO of the following****(2 x 12.5 = 25)**

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|----|---|
| 8 | Examine the role of multi-sensory feedback in Sensorama's design. |
| 9 | Compare Gibson's vision of cyberspace with current virtual worlds and online platforms. |
| 10 | Analyze the key challenges associated with implementing Dense Tracking and Mapping (DTAM) in real-time systems. |
| 11 | Contrast stereoscopy and modern 3D technology. |

SECTION D – K5 (CO4)**Answer any ONE of the following****(1 x 15 = 15)**

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| 12 | Evaluate the role of SLAM in improving the accuracy of Mixed Reality (MR) experiences. What are the advantages of using SLAM? |
| 13 | Judge the effectiveness of the Metaverse as a platform for social interaction. What are the benefits and challenges of interacting in a virtual world? |

SECTION E – K6 (CO5)**Answer any ONE of the following****(1 x 20 = 20)**

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|----|--|
| 14 | Portray the key developments in the evolution of virtual reality (VR) technology. |
| 15 | Design an Augmented Reality (AR) app for learning a new language. Explain how AR elements can be used to make the learning process interactive and engaging. |

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