

6. (a) What are some best practices for importing and organizing sequences and timelines in node-based software for efficient compositing and post production workflows? (7.5)

(b) Explain the concept of "constraints" in Maya Dynamics and how they are used to control object interactions in a simulation. Provide examples of situations where constraints are essential. (7.5)

7. How can one achieve seamless integration between node-based compositing software and other post-production tools, such as 3D modelling and rendering applications? (15)

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Total Pages : 4

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**December 2023**

**B.Sc. (Animation and Multimedia) - V SEMESTER**

**Advance Compositing and VFX**

**(BSC-AM-19-504-1)**

Time : 3 Hours]

[Max. Marks : 75

*Instructions :*

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

**PART-A**

1. (a) How can artists combine fluid dynamics, particle dynamics, and deformers to achieve complex animations in Autodesk Maya? (1.5)  
(b) What are the advantages of using a node-based approach in compositing compared to traditional layer-based methods? (1.5)

- (c) What is a "sequence" in the context of compositing software, and how is it used? (1.5)
- (d) Name two popular node-based compositing software applications. (1.5)
- (e) What is fluid dynamics in Autodesk Maya, and how is it used in simulations? (1.5)
- (f) How can particles dynamics be employed to create realistic effects in Maya? (1.5)
- (g) How does particle dynamics differ from traditional keyframe animation in Maya? (1.5)
- (h) How does Maya simulate the behaviour of particles in various environments and scenarios? (1.5)
- (i) What is the fundamental concept behind exploring dynamics in the context of fields? (1.5)
- (j) What is vector field in Autodesk Maya? (1.5)

#### PART-B

- 2. (a) Discuss the role of Cloth in Maya Dynamics and how it can be used to create realistic cloth simulations? What are the main attributes and settings for achieving lifelike cloth movement? (7.5)
- (b) Could you discuss some real-world examples or case studies where node-based compositing, import sequence management, and timeline manipulation played a pivotal role in creating stunning visual effects and animations using software like Afer Effects? (7.5)

- 3. (a) How does a thorough understanding of film techniques like compositing, camera tracking, and various removal processes contribute to the overall storytelling and impact of a film or television production, and what are some notable examples of films that have leveraged these techniques to great effect? (7.5)
- (b) What are the main principles and strategies behind set extension in visual effects, and how can artists effectively extend physical sets or create entirely virtual environments that seamlessly blend with live-action footage? (7.5)
- 4. In Maya Dynamics, what is the role of "fields" in affecting the behavior of dynamic objects? How can various types of fields be applied to influence the motion and interactions of particles, fluids, and other dynamic elements within 7 a scene? (15)
- 5. (a) How can Maya Dynamics be used to simulate environmental effects, such as smoke, fire, or explosions? Discuss the various elements and parameters involved in creating convincing simulations of these phenomena.(7.5)
- (b) How can soft bodies be utilized in Maya Dynamics to simulate deformable objects like cloth or rubber? Explain the steps involved in setting up and fine tuning a soft body simulation. (7.5)