Name:	
Enrolment No:	UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, March 2019

Programme Name : B.Tech CS (GG) Semester : VI
Course Name : Computer Animation Algorithm and Techniques Time : 03 hrs
Course Code : CSEG 340 Max. Marks : 100
Nos. of page(s) : 2
Instructions: Attempt each question with suitable diagrammatic representation of concepts.

	SECTION A		
S. No.		Marks	CO
Q 1	What are the functions of crowd control department in computer animation production?	4	CO1
Q 2	How can we apply Visualization to represent relationship between temperature and location inside a map?	4	CO3
Q 3	Why it is important to learn modeling and animating human figures separately from other conventional animations.	4	CO3
Q 4	Construct a scenario where we can apply the concept of "path following."	4	CO4
Q 5	Write the name of one animation movie/series which belong to the given genera: a. 3d b. 2d c. Hand drawn d. Stop Motion	4	CO3
	SECTION B		
Q 6	*"Physically based animation is an essential part of the character animation."* Comment on the given statement, with the example of Physically based animation techniques. **OR** Explain data representation and various types of data representations. Using volumetric data representations, design an algorithm to convert cube to cylinder and visualize it both in longitudinal and transverse views.	10	CO4
Q 7	Name the two concepts that are used as explanation for the illusion of motion. Also explain how Motion perception is related by these two concepts.	10	CO4
Q 8	Define "Secondary Action" in "Principles of Animation." Also explain how it could be used for the improvement in "Anticipation" with one example.	10	CO3

Q 9	Describe the usage of various GUI elements with graphical representation and terminologies.	10	CO1

SECTION-C

Q 10	Explain in detail what is Procedural animation with diagrams. Write down, pointwise, the requirement of the system and where it can be applied.	20	CO1
Q 11	Describe the significance of principles of animation in conventional film making. Also explain the drawbacks of each principle separately with examples. **OR** Compare and contrast computer animation production and conventional film making stages. Also mention why some stages of computer animation production can be ignored in conventional film making.	20	CO4

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	SECTION A		
S. No.		Marks	CO
Q 1	What are the functions of editorial department in computer animation production?	4	CO1
Q 2	How can we apply Visualization to represent relationship between Heights (from of Ocean level) and location inside a map?	4	CO3
Q 3	Why it is important to learn modeling and animating human figures separately from other conventional animations?	4	CO3
Q 4	Construct a scenario where we can apply the concept of "Flocking."	4	CO4

Q 5	Diagrammatically explain the following terms/phrases:
	    a. Image Wrapping
	    b. Image Morphing
		4	CO3

	SECTION B		

Q 6	Write an algorithm to simulate fluid flow in different situations:
	        a) Inside a pipe
	        b) In a river
	
	OR
	Explain data representation and various types of data representations. Using volumetric data representations, design an algorithm to convert cube to cylinder and visualize it both in longitudinal and transverse views.
		10	CO4

Q 7	Name the two concepts that are used as explanation for the illusion of motion. Also explain how Motion perception is related by these two concepts.	10	CO4
Q 8	Define "Exaggeration" in "Principles of Animation." Also explain how it could be used for the improvement in "Staging" with one example.	10	CO3
Q 9	Describe the usage of various GUI elements with graphical representation and terminologies.	10	CO1

	SECTION-C		
Q 10	Describe the significance of principles of animation in conventional film making, also explain the drawbacks of each principle separately with examples.	**20**	**CO1**
Q 11	Explain in detail what is Procedural animation with diagrams. Write down, pointwise, the requirements of the system where it can be applied. **OR** Explain data Representation and various types of data representations. Using volumetric data representations write an algorithm to convert cube to cylinder and visualize it both in longitudinal and transverse views.	**20**	**CO4**