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BNM-001

BACHELOR OF ARTS IN 3D ANIMATION AND VISUAL EFFECTS

00222

Term-End Theory Examination

December, 2017

BNM-001 : ANIMATION PRODUCTION PIPELINE

Time : 3 hours *Maximum Marks : 100*

(Weightage 100%)

Note : *Attempt all questions.*

The following section has objective questions. Please select **right** answers. Each question carries **2** marks.

1. In 3DS Max, a particle system in Particle Flow consists of all _____ defined in Particle View. **2**

(a) Commands

(b) Tools

(c) Flows

2. In 3DS Max Particle Flow, a _____ particle is an existing particle from which the particle generates spawn particles. **2**

(a) parent (b) master (c) child

3. In 3DS Max particle Flow, the Birth Paint Operator uses a _____ as a reference for creating particles. 2

(a) Particle Paint helper

(b) Paint helper

(c) Particle helper

4. In 3DS Max Particle Flow, the first event is called the _____ event. 2

(a) Global (b) Local (c) Master

5. In 3DS Max, the particles first appear at an object called an _____. 2

(a) Particle Spawnner

(b) Generator

(c) Emitter

6. In 3DS Max, the _____ operator enables creation of particles within the Particle Flow System. 2

(a) Birth (b) Script (c) Spawn

7. In 3DS Max Particle Flow, use the _____ operator to remove particles from the particle system. 2

(a) Destroy (b) Remove (c) Delete

8. In 3DS Particle Flow, _____ operator to control the initial placement of particles on the emitter. 2

(a) Position Icon

(b) Position

(c) Icon

9. In 3DS Max Particle Flow, the _____ operator Lets you set and animate particle orientation during an event. 2

(a) Rotate

(b) Spin

(c) Rotation

10. In 3DS Max Particle Flow, the _____ operator lets you set and animate particle size during an event. 2

(a) Size (b) Shape (c) Scale

11. In 3DS Max, the _____ space warp simulates the effect of natural gravity on particles 2

(a) Uniform (b) Gravity (c) Earth

12. In 3DS Max, the _____ space warp applies a force to particle systems, spining them through a whirling vortex. 2

(a) Rotate (b) Spin (c) Vortex

13. In 3DS Max, the _____ space warp acts as a planar shield to repel the particles. 2

(a) Deflector (b) Collider (c) Repeller

14. In Maya, Particles are _____ that display as dots, streaks, spheres or other items. 2

(a) Objects

(b) Points

(c) Elements

15. In Maya, you can not create particle objects containing a single particle. 2

(a) True (b) False

16. In Maya, a particle emitter, which generates and animates the _____ of particles automatically. 2

(a) Shape (b) Motion (c) Speed

17. In Maya, Point emitters emit particles from a position in the workspace or from _____. 2

(a) Particles (b) Objects (c) Curves

18. In Maya, _____ emitters emit particles from random, evenly distributed positions of a curve. 2

(a) Curve (b) Path (c) Line

19. In Maya, a _____ is an object that particles follows or move towards. 2

(a) Target geometry

(b) Target Mesh

(c) Goal

20. In Maya, you can make particle objects _____ rather than pass through polygonal surfaces. 2

(a) React (b) Hit (c) Collide

21. In Maya, Hardware rendered particles have a render type of _____. 2

(a) Points (b) Cloud (c) Tube

22. In Maya, you can add and set _____ attributes for the three RGB components of the color. 2

(a) Shading group

(b) Per particle

(c) Per object

23. In Maya, you can give particles a _____ to make them disappear from the scene. 2

(a) Lifespan (b) Age (c) Life

24. In Maya, you can simulate the motion of natural forces with dynamic _____. 2

(a) Motion (b) Fields (c) Goals

25. In Maya, you can recreate a geometric object as a _____ object called a soft body. 2

(a) Flexible (b) Spring (c) Rigid

26. In Maya, Fluid Effects also includes an _____ for creating realistic open water. 2

(a) Liquid Shader

(b) Ocean Shader

(c) Water Shader

27. In Maya, ncloth is generated from _____ polygon meshes. 2

(a) Random

(b) Modeled

(c) Sequential

28. In Realflow, "_____" is Realflow's standard settings and provides parameters for all watery or high-viscous substances. 2

(a) Gas (b) Liquid (c) Dumb

29. In Realflow, "_____" is defined as mass per volume unit and is expressed in Kilograms per cubic metre (Kg/m^3). 2

(a) Density

(b) Resolution

(c) Thickness

30. In Realflow _____ tries to limit a fluid's expansion tendency. 2

(a) Int Pressure

(b) Ext Pressure

(c) Surface Tension

Answer the below questions with a detailed diagram / flow chart. Each question carries 10 marks :

1. Explain the production process involved in creating a "Raindrops Simulation" in 3DS Max with particle system. 10

2. Describe the production process and integration between Maya / Max and Realflow for the below examples. 10

(a) Filling a wine glass with wine (CG wine using Realflow).

(b) Filling a 3D bowl with liquid chocolate (CG chocolate using Realflow).

3. Explain the step wise process involved to create a realistic simulation of a Building Collapse using Maya Rigid Body dynamics. 10

4. Define Gravity field and Turbulance field in Maya and explain their usage in brief. 10