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BNM-001

BACHELOR OF ARTS IN 3D ANIMATION AND VISUAL EFFECTS

Term-End Theory Examination

00162 **December, 2016**

BNM-001 : ANIMATION PRODUCTION PIPELINE

Time : 3 hours *Maximum Marks : 100*

(Weightage 100%)

Note : *Attempt **all** questions.*

The following section has objective type questions. Select the right answer. Each question carries 2 marks.

1. Space warps are renderable objects that affect the appearance of other objects. *2*

(a) True

(b) False

2. Push Space Warps applies a _____ unidirectional force to particle systems. *2*

(a) uniform

(b) fixed

(c) stable

3. The Motor Space Warp works like vortex, but applies rotational torque. 2

(a) True

(b) False

4. The Deflector Space Warp acts as a _____ shield to repel the particles generated by a particle system. 2

(a) planar

(b) circular

(c) spherical

5. Particle Flow employs an event-driven model, using a special dialog called _____ . 2

(a) Depot

(b) Particle View

(c) Particle Flow Window

6. The first event in the Particle Flow system is always a _____ event. 2

(a) global

(b) master

(c) parent

7. The particles first appear at an object called a/an _____ . 2

(a) source

(b) emitted

(c) emitter

8. The _____ contains all Particle Flow actions, as well as several default particle systems. 2

(a) parameters panel

(b) event display

(c) depot

9. The Birth operator enables _____ of particles within the Particle Flow system using a set of simple parameters. 2

(a) life

(b) display

(c) creation

10. Use the _____ operator to remove particles from the particle system. 2

(a) Remove

(b) Delete

(c) Lifespan

11. The _____ operator lets you set and animate particle orientation during an event. 2

(a) Rotation

(b) Spin

(c) Orientation

12. The Material Static operator lets you give particles material IDs that remain constant throughout the event. 2

(a) True

(b) False

13. The _____ operator creates each particle as a rectangle that always faces a particular object, camera or direction. 2

(a) Look At

(b) Aim

(c) Shape Facing

14. In Maya, you can animate the display and movement of particles with various techniques; for example, keys, expressions and _____ such as gravity. 2

(a) effects

(b) forces

(c) fields

15. A particle object is a collection of particles that share different attributes. 2

(a) True

(b) False

16. In Maya, surface emitters emit particles from random, evenly distributed positions on the _____ faces of NURBS of polygonal surfaces. 2

(a) outer

(b) inner

(c) double sided

17. In Maya, goals for nParticles, behave _____ to goals created for Maya classic particles. 2

(a) opposite

(b) differently

(c) similar

18. In Maya, you can use the _____ Relationships Editor to reassign collisions between particles and rigid bodies. 2

(a) Particle

(b) Dynamic

(c) Collision

19. In Maya, software rendered particles have a render type of Blobby Surface, Cloud and _____. 2

(a) Tube

(b) Spheres

(c) Streak

20. In Maya, dynamic forces influence NURBS and polygonal objects in the _____ space coordinate system. 2

(a) object

(b) local

(c) world

21. In Maya, the _____ sets how much all particles of the trailing object are attracted to the goal. 2

(a) object weight

(b) target weight

(c) goal weight

22. In Maya, _____ fluid effects do not use fluid solvers to simulate fluid motion. 2

(a) stable

(b) static

(c) non-dynamic

23. In Maya, fluid containers are divided into three dimensional grids, and each unit of one of these grids is called a _____ . 2

(a) pixel

(b) pixol

(c) voxel

24. In Maya, a rigid body is a polygonal or NURBS surface converted to a/an _____ . 2

(a) deforming

(b) closed

(c) unyielding

25. In Maya fields, the volume shapes you can use are cube, sphere, cylinder, _____ and torus. 2

(a) cone

(b) pyramid

(c) oval

26. In Maya, you cannot animate the display and movement of particles with keys. 2

(a) True

(b) False

27. In RealFlow, RealWave Mesh cannot be influenced by _____. 2

(a) daemons

(b) forces

(c) fields

28. In RealFlow, standard geometry scale value for any object exported from Maya should be _____. 2

(a) 0·01

(b) 0·1

(c) 1

29. _____ format supports surface deformation while exporting from 3DS Max to RealFlow. 2

(a) OBJ

(b) SD

(c) FBX

30. _____ is not a particle type in RealFlow. 2

(a) Gas

(b) Water

(c) Dumb

Answer the following questions with detailed diagrams/flow charts. Each question carries 10 marks.

31. Explain the production process involved in creating a "Realistic Smoke" in 3DS Max. *10*

32. Describe the production process and integration between Maya/3DS Max and RealFlow for the following examples : *10*

(a) Filling a glass of Milk (Milk using RealFlow).

(b) Honey falling on a surface (Honey using RealFlow).

33. Explain the stepwise process involved to create a realistic simulation of a group of bees flying using Maya Particle Dynamics. *10*

34. Define Gravity and Uniform field in Maya and explain their usage in brief. *10*