

00163

**BACHELOR OF ARTS IN 3D ANIMATION AND  
VISUAL EFFECTS**

**Term-End Theory Examination**

**June, 2017**

**BNM-001 : ANIMATION PRODUCTION PIPELINE**

*Time : 3 hours*

*Maximum Marks : 100*

*(Weightage : 100%)*

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*Note : Attempt all questions.*

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The following section has objective questions. Please tick the right answers. Each question carries 2 marks.

1. Space warps create \_\_\_\_\_ fields that deform other objects. 2
  - (a) dynamic
  - (b) pressure
  - (c) force
  
2. The Drag space warp is particle motion damper that \_\_\_\_\_ particle velocity by a specified amount within a specific range. 2
  - (a) reduces
  - (b) increases
  - (c) maintain

3. The path follow space warp forces particles to follow a \_\_\_\_\_ path. 2
- (a) curved
  - (b) straight
  - (c) spline
4. The U Deflector is a universal deflector that lets you use any object as a particle deflector. 2
- (a) True
  - (b) False
5. P array is an example of \_\_\_\_\_ particle system. 2
- (a) Linear
  - (b) Event-Driven
  - (c) Non-Event-Driven
6. In Particle Flow the Global event contains a \_\_\_\_\_ Render operator that specifies rendering properties for all particles in the system. 2
- (a) single
  - (b) double
  - (c) tripple
7. After being born, particles can remain stationary at emission point. 2
- (a) True
  - (b) False

8. The \_\_\_\_\_ contains the particle diagram, and provides functions for modifying the particle system. 2
- (a) parameters panel
  - (b) event display
  - (c) depot
9. The \_\_\_\_\_ operator uses an animated texture to calculate the timing, location and scale of particles. 2
- (a) Birth Texture
  - (b) Birth Image
  - (c) Birth Bitmap
10. Use the position icon operator to control the \_\_\_\_\_ placement of particles on the emitter. 2
- (a) world
  - (b) initial
  - (c) average
11. The \_\_\_\_\_ operator gives an angular velocity to particles to particles in an event. 2
- (a) Rotation
  - (b) Spin
  - (c) Orientation
12. The material dynamic operator lets you give particles material IDs that remain constant throughout the event. 2
- (a) True
  - (b) False

13. Shape instance lets you use any \_\_\_\_\_ object in the scene as particles. 2
- (a) reference
  - (b) target
  - (c) source
14. Particles are \_\_\_\_\_ that displays as dots, streaks or other items. 2
- (a) points
  - (b) objects
  - (c) elements
15. You can not create particle objects containing a single particle in Maya. 2
- (a) True
  - (b) False
16. Volume emitters emit particles from a \_\_\_\_\_ volume. 2
- (a) open
  - (b) closed
  - (c) object
17. In Maya, a goal can be any object except a \_\_\_\_\_. 2
- (a) Curve on surface
  - (b) Curve
  - (c) Subdiv surface

18. In Maya, Hardware Rendered particles have a render type of Multipoint, Multistreak and \_\_\_\_\_ 2
- (a) Cloud
  - (b) Tube
  - (c) Points
19. In Maya, instances of geometry are not duplicates of an object, but are references of the original object. 2
- (a) True
  - (b) False
20. In Maya, you can not use a \_\_\_\_\_ texture to control surface emission. 2
- (a) 2D
  - (b) 3D
  - (c) None of the above
21. In Maya, 3D fluids inherently require extra data to define them, which can make them very small. 2
- (a) True
  - (b) False
22. In Maya, a fluid \_\_\_\_\_ is a rectangular 2D or 3D boundary that defines the space in which the fluid exists. 2
- (a) Container
  - (b) Space
  - (c) Box

23. In Maya, the combination of the \_\_\_\_\_ and \_\_\_\_\_ is a soft body. 2  
(a) objects, springs  
(b) geometry, particles  
(c) particles, springs
24. In Maya, \_\_\_\_\_ affects the behaviour of a dynamic fluid, causing it to rise or react. 2  
(a) weight  
(b) temperature  
(c) viscosity
25. In Maya, more than one goal object can not affect a particle object. 2  
(a) True  
(b) False
26. In Maya, when you define a fluid property as a \_\_\_\_\_, you can place different property values in each voxel. 2  
(a) grid  
(b) add to grid  
(c) set to grid
27. In Real Flow Realwave mesh can be controlled by daemons. 2  
(a) True  
(b) False
28. In Real Flow, standard geometry scale value for any object exported from 3DS Max should be \_\_\_\_\_. 2  
(a) 0.01  
(b) 0.1  
(c) 1

29. OBJ format supports surface deformation while exporting from 3DS Max to Real Flow. 2  
(a) True  
(b) False

30. Water is a particle type in Real Flow. 2  
(a) True  
(b) False

Answer the following questions with a detailed diagram/Flow chart. Each question carries 10 marks.

1. Explain the production process involved in creating a 'Realistic Fire' in Maya. 10
2. Describe the production process and integration between Maya/3DS Max and Real Flow for below examples. 10  
(a) Filling a glass of water (water using Real Flow)  
(b) Chocolate Falling on strawberry (Chocolate using Real Flow)
3. Explain the step wise process involved to create a realistic simulation of group of birds flying using 3DS Max particle system. 10
4. Define the Drag and Radial field in Maya and explain their usage in brief. 10
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