

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

**Term-End Theory**

**June, 2014**

**00886**

**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. In 3Ds Max Find Target Test Can't be used with any animated object.  
(a) True                      (b) False
2. In 3Ds Max \_\_\_\_\_ lets the particle system check particle speed, acceleration or the rate of circular travel and branch accordingly.  
(a) Acceleration Test  
(b) Speed Test  
(c) Velocity Test
3. In 3Ds Max the \_\_\_\_\_ enables a smooth transition in the rotational component of a particle, so that the particle can gradually rotate to a specific orientation over a specific period.  
(a) Go To Rotation Test  
(b) Spin  
(c) Rotation

4. In 3Ds Max the \_\_\_\_\_ is a universal deflector that lets you use any object as a particle deflector.
  - (a) Deflector
  - (b) S Deflector
  - (c) U Deflector
  
5. In 3Ds Max the \_\_\_\_\_ space warp works like push, but applies rotational torque to the affected particles or objects rather than a directional force.
  - (a) Spin
  - (b) Motor
  - (c) Vortex
  
6. In 3Ds Max Push applies a uniform, bidirectional force to particle systems.
  - (a) True
  - (b) False
  
7. Which of the following Particle View Elements contains the particle diagram, and provides functions for modifying the particle system ?
  - (a) Depot
  - (b) Parameter Panels
  - (c) Event Display
  
8. In Particle View the \_\_\_\_\_ operator lets you give particles material IDs that can vary during the event. It also lets you assign a different material to each particle based on its material ID.
  - (a) Material Frequency
  - (b) Material Dynamic
  - (c) Material Static
  
9. In 3Ds Max Use Send Out Test when you simply want to send particles to another event with specific conditions.
  - (a) True
  - (b) False

10. In Particle Flow Keep Apart doesn't use particle geometry; rather, it creates a spherical force field centered on the pivot of each particle.  
(a) True                      (b) False
11. In Particle Flow Birth Operator Subframe Sampling should be on to avoid particle \_\_\_\_\_ by emitting particles at a much higher subframe resolution.  
(a) Puffing  
(b) Dying  
(c) Collision
12. The \_\_\_\_\_ setting is unavailable when using Speed Space Follow in Rotation Operator.  
(a) Axis Control  
(b) Random  
(c) Divergence
13. In Maya Field Attenuation sets how much the strength of the field increases as distance to the affected object increases.  
(a) True                      (b) False
14. In Maya Point Render Type of Particle System can be rendered with Maya Mental Ray Renderer.  
(a) True                      (b) False
15. In Maya 'Scale Rate By Object Size' attribute not available when particle emitter type is \_\_\_\_\_.  
(a) Volume  
(b) Directional  
(c) Surface
16. Which of the following field in pulls objects in a circular or spiraling direction ?  
(a) Spin                      (b) Spiral                      (c) Vortex

17. In Maya \_\_\_\_\_ sets how much a moving rigid body resists movement against another rigid body's surface.
- (a) Dynamic Friction
  - (b) Static Friction
  - (c) Friction
18. In Maya Spring creation option box attributes \_\_\_\_\_ creates springs between all pairs of selected points. Choose this option when you want an object to have a uniform spring structure throughout its shape.
- (a) Wireframe
  - (b) All
  - (c) Min/Max
19. In Maya fluid dynamics if the Buoyancy value is positive the Density represents a substance that is heavier than the surrounding medium, like bubbles in water, and will thus fall. Negative values cause the Density to rise.
- (a) True
  - (b) False
20. In Maya nCloth Component to Component constraints attach nCloth components (vertices, edges or faces) to other nCloth or passive object surfaces.
- (a) True
  - (b) False
21. In Maya a \_\_\_\_\_ attribute lets you set the value of the attribute individually for each particle of the object.
- (a) per particle
  - (b) per object
  - (c) per vertex

22. In Maya particle dynamics \_\_\_\_\_ sets how much of a particle object's velocity attribute value is retained from frame to frame.
- (a) Drag
  - (b) Goal
  - (c) Conserve
23. In Maya fluid dynamics increasing the \_\_\_\_\_ increases the number of steps used by the solver to compute the incompressibility of the fluid flow.
- (a) Solver Quality
  - (b) Subframe Sampling
  - (c) Surface Ratio
24. In Maya Passive rigid body parented to a hierarchy may not interact correctly with active bodies and constraints.
- (a) True
  - (b) False
25. Which of the following real flow element can't be influenced by deamons ?
- (a) Multibody
  - (b) Particles
  - (c) Realwave
26. Objects cannot be modified in terms of polygon or vertex number by RealFlow's GUI.
- (a) True
  - (b) False
27. In Realflow \_\_\_\_\_ is a very important attribute and effective tool to sharpen meshes and eliminate the rounded and "blobby" look.
- (a) Filter
  - (b) Smooth
  - (c) Particle Density

28. In Realflow standard geometry scale value for any object exported from 3Ds Max should be \_\_\_\_\_.
- (a) .1                      (b) .01                      (c) 1.0
29. Which of the below is not a particle type in realflow ?
- (a) Gas                      (b) Dumb                      (c) Water
30. With the \_\_\_\_\_ emitters you can create filaments from an object's vertices.
- (a) Fill volume  
(b) Fibers  
(c) Bitmap

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

1. Explain the Production process involved in creating a "Fireworks" in 3Ds Max.
2. Describe the Production Process and integration between Maya/Max and RealFlow for the below examples.
  - (a) Milk falling down on a pot (Milk using real flow).
  - (b) Soft drinks splashing out from bottle (soft drinks to be created using realflow).
3. Explain the step wise process involved to create a realistic simulation of an "Explosion" using Maya Particles and Rigid Body Simulation.
4. Define Gravity field and Newton field in Maya and explain their usage in brief.