BACHELOR OF ARTS IN 3D ANIMATION AND VISUAL EFFECTS

Term-End Theory Examination

December, 2015

BNM-001 : ANIMATION PRODUCTION PIPELINE

Time : 3 hours　　　　　　　　*Maximum Marks :* 100

(Weightage 100%)

Note : Attempt all questions.

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

1.　In 3Ds Max Particle Flow employs an event -　**2**
driven model, using a special dialog called
_____.

　(a)　PF source

　(b)　Particle view

　(c)　Depot

2.　In 3Ds Max Particle Flow, operators and tests are　**2**
known collectively as _____.

　(a)　actions

　(b)　events

　(c)　flow

3. In 3Ds Max Particle Flow, the first event in the system is always a _____ event, whose contents affect all particles in the system.

    (a) main

    (b) global

    (c) local

    2

4. In 3Ds Max Particle Flow, rate parameters, such as speed, are measured in units per _____.

    (a) second

    (b) frame

    (c) 25th frame

    2

5. In 3Ds Max Particle Flow, the _____ contains all Particle Flow actions, as well as several default particle systems.

    (a) depot

    (b) parameters panel

    (c) event display

    2

6. In 3Ds Max Particle Flow, operators let you describe particle speed and direction, shape, appearance and more.

    (a) True

    (b) False

    2

7. In 3Ds Max Particle Flow, the Birth Texture operator uses an _____ texture to calculate the timing, location and scale of particles.

    (a) procedural

    (b) ramp

    (c) animated

    2

8. In 3Ds Max Particle Flow, the spin operator is **2** applied once per event per particle, except when using the _____ option.
    (a) Random 3D
    (b) Speed Space Follow
    (c) World Space

9. In 3Ds Max Find Target Test can't be used with **2** animated object.
    (a) True
    (b) False

10. In 3Ds Max the _____ is an universal **2** deflector that lets you use any object as particle deflector.
    (a) Deflector
    (b) S Deflector
    (c) U Deflector

11. In Particle view the _____ operator lets you **2** give particles material IDs that can vary during the event. It also lets you assign a different material to each particle based on it's material ID.
    (a) Material Frequency
    (b) Material Dynamic
    (c) Material Static

12. In Particle Flow keep apart doesn't use particle **2** geometry; rather, it creates a spherical force field centered on the pivot of each particle.
    (a) True
    (b) False

13. In Maya point Render Type of Particle System can't be rendered with Mental Ray Renderer. **2**

(a) True

(b) False

14. In Maya the _____ field pulls objects in a circular or spiraling direction. **2**

(a) Spin

(b) Spiral

(c) Vortex

15. In Maya which of the following factor sets how much a moving rigid body resists movement against another rigid body's surface ? **2**

(a) Friction

(b) Static Friction

(c) Dynamic Friction

16. In Maya a _____ attribute lets you set the value of the attribute individually for each particles of the object. **2**

(a) per particle

(b) per object

(c) per vertex

17. In Maya particle dynamics _____ sets how much of a particle object's velocity attribute value is retained from frame to frame. **2**

(a) Drag

(b) Goal

(c) Conserve

18. In Maya 'Scale Rate by Object Size' attribute not available when particle emitter type is _____. **2**
    (a) Volume
    (b) Directional
    (c) Surface

19. Particles collide with geometry to create new particles upon contact. In Maya the process called _____. **2**
    (a) Per Point Emission Rate
    (b) Particle Collision Event Editor
    (c) Spawn

20. A particle object is a collection of particles that share the same _____. **2**
    (a) attributes
    (b) shapes
    (c) speed

21. In Maya you can't scale the effect of fields, collisions, springs and goal on particles. **2**
    (a) True
    (b) False

22. In Maya dynamics, emitters generate moving or _____ particles as an animation plays. **2**
    (a) stable
    (b) static
    (c) stationary

23. In Maya, Dynamics do not affect the child object's transform values. **2**
    (a) True
    (b) False

24. In Maya dynamics, volume emitters emit particles from a _____ volume.　**2**
    (a) open
    (b) closed
    (c) fixed

25. In Realflow _____ can't be influenced by deamons.　**2**
    (a) Multibody
    (b) Particles
    (c) Realwave

26. Objects can't be modified in terms of polygon or vertex number by Realflow's GUI.　**2**
    (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.　**2**
    (a) Filters
    (b) Smooth
    (c) Particle Density

28. Surface deformation can be exported from 3Ds Max to Realflow with _____ file format.　**2**
    (a) FBX
    (b) OBJ
    (c) SD

29. In Realflow one object can only be controlled dynamically, there is no option for manual animation.　**2**
    (a) True
    (b) False

30. In Realflow _____ tries to limit a fluids   **2**
expansion tendency.
(a) Ext pressure
(b) Surface tension
(c) Int pressure

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

1. Explain the production process involved in   **10**
creating a "Realistic Campfire" in 3Ds Max.

2. Describe the production process and integration   **10**
between Maya/Max and Realflow for the below
examples :
(a) Bottle filling with water
(b) Cream falling down on a cake

3. Explain the stepwise process involved to create a   **10**
realistic simulation of an explosion using Maya
Fluid dynamics.

4. Define Newton field and Uniform field in Maya   **10**
and explain their usage in brief.

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