

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

Term-End Theory Examination

June, 2016

00323

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. In 3ds Max Particle Flow, the flow sends particles from _____ to _____ using tests. 2
 - (a) event, operator
 - (b) operator, event
 - (c) event, event

2. In 3ds Max Particle Flow, the particle flow components are subdivided into three main categories : Operators, Flows and _____. 2
 - (a) Nodes
 - (b) Tests
 - (c) Connections

3. In 3ds Max Particle Flow, the Birth operator should not exist at the top of the birth event. 2
- (a) True
- (b) False
4. In 3ds Max, Particle Flow's _____ operator lets you store all or part of a particle animation in memory or to a file. 2
- (a) store
- (b) save
- (c) cache
5. In 3ds Max Particle Flow, the particle flow source is the _____ for each flow, and also serves as the default _____. 2
- (a) viewport icon, emitter
- (b) emitter, viewport icon
- (c) None of the above
6. In 3ds Max Particle Flow, the basic function of a test in particle flow is to determine whether the particles satisfy one or more conditions, and if so, make them unavailable for sending to another event. 2
- (a) True
- (b) False
7. In 3ds Max Particle Flow, the rotation operator gives an angular velocity to the particles in an event, with optional random variation. 2
- (a) True
- (b) False

8. The speed operator works on an instantaneous basis. It sets each particle's speed once only, when it enters the event. 2
- (a) True
- (b) False
9. To use Particle Age Map, which operator will be used ? 2
- (a) Material Dynamic
- (b) Material Static
- (c) Mapping
10. Which one of the following test operators checks whether a specific amount of time has passed since the start of the animation ? 2
- (a) Life Test
- (b) Life Span
- (c) Age Test
11. Find target operator can't be used without any target geometry. 2
- (a) True
- (b) False
12. Which deflector type is *not* supported by collision spawn test ? 2
- (a) Deflector
- (b) Dynaflect
- (c) UDeflector

13. In Maya, springs are used to give soft bodies and groups of particles to external structure. 2
- (a) True
 - (b) False
14. In Maya Dynamics, surface emitters emit particles from random, evenly distributed positions on the _____ faces of NURBS or polygonal surfaces. 2
- (a) inner
 - (b) outer
 - (c) normal
15. In Maya Dynamics, the connection between the emitter and emitted particle object is not a spatial relationship. 2
- (a) True
 - (b) False
16. In Maya Dynamics, a goal can be any object except a _____ surface. 2
- (a) Subdiv
 - (b) NURBS
 - (c) Curve on
17. In Maya Dynamics, you can't add a goal to individual particles of the particle object. 2
- (a) True
 - (b) False

18. In Maya Dynamics, you can use the _____ Relationships Editor to reassign collisions between particles and rigid bodies or soft bodies. 2
- (a) Collision
 - (b) Particle
 - (c) Dynamic
19. In Maya, Motion blur is not supported for hardware particle rendering in mental ray. 2
- (a) True
 - (b) False
20. In Maya, the particle cloud shader is a _____ material that you can assign to particles with a cloud render type to achieve effects such as gas or clouds. 2
- (a) layered
 - (b) lambert
 - (c) volume
21. In Maya Dynamics, the particle tool lets you create and position particles individually or in grids or _____ region. 2
- (a) spherical
 - (b) cubical
 - (c) square

- 22.** In Maya Dynamics, _____ attributes are attributes the particle object has by default. 2
- (a) dynamic
 - (b) motion
 - (c) static
- 23.** In Maya Dynamics, you can add as per particle rgbPP attribute. All particles in the object use the same colour. 2
- (a) True
 - (b) False
- 24.** In Maya, you can give nParticles a lifespan to make them disappear from the scene after they reach a specified _____. 2
- (a) time
 - (b) frame
 - (c) age
- 25.** In Maya, 2D fluids inherently require extra data to define them, which can make them very large. 2
- (a) True
 - (b) False
- 26.** In RealFlow, RealWave mesh can be influenced by daemons. 2
- (a) True
 - (b) False

27. In RealFlow, which of the following options acts like a constraint between two objects ? 2
- (a) Multi Servo
 - (b) Multi Body
 - (c) Multi Joint
28. In RealFlow, _____ daemon is used to define a lifespan for the particles and remove them when this limit is reached. 2
- (a) K Life
 - (b) K Age
 - (c) K Time
29. With the _____ emitters you can create filaments from an object's vertices in RealFlow. 2
- (a) fill volume
 - (b) fibers
 - (c) bitmap
30. In RealFlow, standard geometry scale value for any object exported from 3ds Max should be _____. 2
- (a) 0.1
 - (b) 0.01
 - (c) 1.0

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

- 31.** Explain the production process involved in creating a "Fountain" with particles in 3ds Max. 10
- 32.** Describe the production process involved in creating a group of bees roaming around a honeycomb with the help of Maya particles. 10
- 33.** Describe the production process and integration between Maya/Max and RealFlow for the following examples : 10
- (a) Pouring milk in pot
 - (b) Honey falling down on a spoon
- 34.** Define the Gravity field and Drag field in Maya and explain their usage in brief. 10
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