

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

00191

**Term-End Theory**

**June, 2012**

**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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1. The following section has objective questions. Please tick the right answers. Each question carries 2 mark.
- (a) In 3DS Max The Drag Space Warp reduces particle velocity by a specified amount within a specified range.  
(i) True                      (ii) False
- (b) In 3DS Max Particle Flow Birth Operator Emit Start option defines the frame number at which the operator stops emitting particles.  
(i) True                      (ii) False
- (c) In 3DS Max Particle flow is \_\_\_\_\_.  
(i) Non Event Driven Particle system  
(ii) Event Driven Particle system  
(iii) None of the above

- (d) In 3DS Max \_\_\_\_\_ tool is used to connect particles with the space warps.
- (i) Select and Link
  - (ii) Group
  - (iii) Bind to Space Warps.
- (e) In particle flow what is the default percentage value of the particles in the system produced at render time ?
- (i) 33.33      (ii) 50      (iii) 100
- (f) In 3DS Max which space warps objects are used to deflect particles or to affect dynamics systems ?
- (i) Rigid Body
  - (ii) Soft body
  - (iii) Deflectors
- (g) Motion blur is not supported for hardware particle rendering in mental ray in maya.
- (i) True                      (ii) False
- (h) In maya the \_\_\_\_\_ attribute lets you set the value of the attribute individually for the each particle of the object.
- (i) Per Particle
  - (ii) Per object
  - (iii) Goal
- (i) In Maya particle system can be connected to the field's influence with \_\_\_\_\_.
- (i) Particle Relationship Editor
  - (ii) Field Relationship Editor
  - (iii) Dynamic Relationship Editor

- (j) Which of the following dynamics in maya can affect active rigid body ?
- (i) Fluid
  - (ii) Spring
  - (iii) Both
- (k) Which constraint is used in Maya nCloth to hold specific nCloth components or move them through XYZ space ?
- (i) Transform Constraint
  - (ii) Component to Component constraint
  - (iii) Point to surface constraint
- (l) Which option is used to improve nCloth performance in Maya by saving simulation data in server or hard disk ?
- (i) Save as nCloth.
  - (ii) Export as nCloth.
  - (iii) nCache.
- (m) Inside reflow an object cannot be animated manually only it can be moved dynamically.
- (i) True
  - (ii) False
- (n) \_\_\_\_\_ format is used to import animated object from any 3D software like 3DS Max.
- (i) FBX
  - (ii) SD
  - (iii) OBJ
- (o) How many types pf particle can be generated in reflow ?
- (i) 4
  - (ii) 5
  - (iii) 6

2. Answer the below questions in brief (min 15 lines) each question carries 10 marks each.
- (a) Define the following terms in maya particle dynamics
    - (i) Lifespan
    - (ii) Goal
  - (b) Explain **age test operator** and **spin operator** in 3DS Max Particle Flow.
  - (c) Explain 2 different process to control the opacity of a particle system in maya.
  - (d) Define particles and give four examples of real world events that can be simulated with particle system.
3. Answer the below question with a detailed diagram / flow chart. Each question carries 15 marks Attempt **any 2** question.
- (a) Explain in detail the Production Process and the different departments involved to create a 3D animated Feature Film.
  - (b) Describe the Production Process and integration between Maya / Max and Real Flow for the below examples.
    - (i) Filling a 3D bowl with milk (CG milk using real flow).
    - (ii) Sea water flooding the city.
  - (c) Explain the step wise process involved to create a realistic simulation of a cloth object tearing in 2 pieces.
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