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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : 3D MODELLING
COURSE CODE : BBU 30203
PROGRAM CODE : BBF
EXAMINATION DATE : DECEMBER 2018 / JANUARY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS.

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THIS EXAMINATION PAPER CONSISTS **THREE (3)** PAGES

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- Q1** (a) Give definition for 3D Modelling. (2 marks)
- (b) Determine the number of points, lines and surface for a cube in 3D object.
Draw a diagram to support your answer. (6 marks)
- (c) Elaborate the following types of splines and draw a diagram to support your answer.
(i) B-splines
(ii) Bezier Splines
(iii) NURBS (Non-Uniform Rational B-Splines) (12 marks)
- Q2** (a) Explain the different between Target Light and Free Light in 3Ds Max. (6 marks)
- (b) Elaborate step by step procedure to assign materials on an object in the 3D scene. (6 marks)
- (c) Discuss the four (4) main source of lighting used in 3Ds Max and use a diagram to support in the discussion. (8 marks)
- Q3** (a) What is rendering in 3D scene. (4 marks)
- (b) Discuss the following Common Rendering Panels (CRP)
(i) CRP Time output
(ii) CRP Output Size
(iii) CRP Options (6 marks)
- (c) Discuss five (5) elements in 3D rendering process. (10 marks)

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- Q4** (a) Discuss the role of camera objects in 3D Std Max? (4 marks)
- (b) Give seven (7) movements in 3D camera and use a diagram to show your explanation. (10 marks)
- (c) Explain the differences between Target Camera and Free Camera in 3Ds Max. (6 marks)
- Q5** (a) Give four (4) elements of 3D rendering technique and explain it. (4 marks)
- (b) In Autodesk 3Ds-Max, 3D Objects can be duplicated using the Clone option (Edit > Clone), which opens the Clone options dialog box, as shown in Figure Q5. Explain the different between the function of Copy , Instance and Reference in 3Ds-Max Modeling. Use a diagram to describe it.

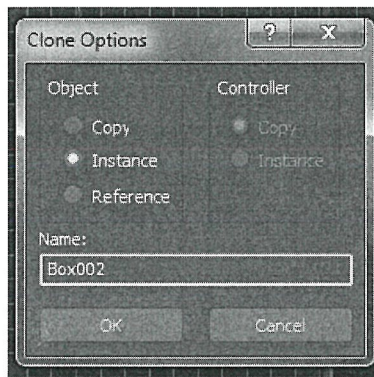


Figure Q5

(8 marks)

- (c) In order to help Aiman to animate a fish in 3D scene, elaborate a procedure to set up the animation by using a key frames. (8 marks)

-END OF QUESTIONS-

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