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University Examinations 2023/2024

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF JOURNALISM AND MASS COMMUNICATION

JOO 3452: ANIMATION AND WEB DESIGN

ATE: APRIL 2024   TIME: 2 HOURS

1. **INSTRUCTIONS:** *Answer **Questions ONE** and any other **TWO** Questions*

QUESTION ONE (30 MARKS)

a)   i) Discuss in detail the purpose of pose-to-pose animation when creating an animation.
(4 marks)

ii) Use a diagram to illustrate an example of a working-rough idea to get key poses sorted

to describe an action in an expressive manner.   (4 marks)

 iii) Describe stop-motion-animation and where this type of animation is used.   (4 marks)

b) Explain how the following animation aspects are applied in creating animations. (6 marks)

   i. Colour and texture

   ii. Shape

c) i. Discuss the importance of pixilation in stop-motion animation.   (4 Marks)

ii. Differentiate between 21) animation and 3D animation.   (4 marks)

d) Using physics based models, explain forward dynamics and inverse dynamics.

(4 marks)

QUESTION TWO (20 MARKS)

a) Explain the following types of animation controls: (6 marks)

i) Explicitly declared control

ii) Live action / analyzing control

iii) Facial animation control

a) Describe in detail the aspects of squash and stretch as one of the 12 principles of animation by highlighting the main benefits of squash and stretch. Use a diagram to explain the answer.

(6 marks)

b) Explain how anticipation is used to improve the representation of weight and other forces to draw attention to main action. Use an example to explain your answer.   (8 marks)

QUESTION THREE (20 MARKS)

a) Differentiate between cell animation and path animation.   (5 marks)
b) Explain the basic workflow that a rigger follows to organize and create a control rig for any object.
(7 marks)
c) Explain the purpose of staging in animation highlighting the benefits and environment necessary for staging to be successful.   (8 marks)

QUESTION FOUR (20 MARKS)

a) Explain the following terms as used in animation: (6 marks)
    i) Sequence. iShot.

    iii)   Frame.

b) Compare and contrast between character animation and effects animation.   (4 marks)
c) Explain why animation fails.   (5 marks)
d) Discuss any area where animation is applied in business and the benefits gained by using animation in the selected area of application.   (5   marks)

QUESTION FIVE (20 MARKS)

a) Briefly explain the following techniques used in computer animation: (6 marks)
    i. Rendering.
    ii. Morphing and warping. iii. Squash and Stretch
b) Use a diagram to describe the slow in and slow out principle using:

    i.Interpolation curves.   (3 marks)
    ii. Frame by frame elements   (3 marks)
c)   One method of creating an animation is to write a program in a standard programming language and call graphics library functions as needed to create the animation. Describe three other methods of creating animations, giving an advantage and a disadvantage of each approach.   (8 marks)