



# The University of Fiji

## School of Science and Technology



Department of Computer Science/ Information Technology

ITC224

Virtualisation & Animation

Semester II, 2014

### Final Examination Question Paper

Time Allowed: 3 Hours [10 Minutes Extra Allowed For Reading the Paper]

Weighting: 40%

Total Marks: 100 marks.

#### Section A:

Multiple Choice

20 marks

#### Section B:

Open Ended Question 1

10 marks

Open Ended Question 2

10 marks

Open Ended Question 3

10 marks

Open Ended Question 4

15 marks

Open Ended Question 5

20 marks

Open Ended Question 6

15 marks

**Total**

**100 marks**

#### Instructions

- Show your answers clearly in each question to gain maximum marks.
- You may ask for extra sheets from the supervisors if the need arises.
- Do not forget to write your name and ID number on all the extra sheet(s) attached.
- Programmable calculators are not allowed.
- This exam paper contains 9 pages including the cover page.
- All questions are compulsory.

**Section A.**  
**Multiple Choice Questions**

**[20 marks]**

1. You have imported an image from your desktop into Flash Professional. Later you edit and resave the image on your desktop. You must \_\_\_\_\_ in Flash Professional to import the latest changes.
  - A. do nothing. The image will update automatically.
  - B. right-click (CTRL-Click) on the image in the Library panel and choose Update.
  - C. drag a copy of the image from the Library to the stage.
  - D. select the image on the stage and press F5 to refresh the image
  
2. You have a button with an instance name of myButton. When the button is clicked, you want to call a doSomething function. The ActionScript 3.0 statement that correctly adds the click event is \_\_\_\_\_.
  - A. myButton.addEventListener(MouseEvent.CLICK, doSomething);
  - B. myButton.addListener("click", doSomething);
  - C. myButton.onRelease = doSomething;
  - D. myButton.onClick = doSomething;
  
3. You have a movie clip that is located in many places in your Flash document, \_\_\_\_\_ is the panel that is used to find the places where the movie clip is in the document.
  - A. the Library panel
  - B. the Timeline panel
  - C. the Movie Explorer panel
  - D. the Components panel
  
4. \_\_\_\_\_ is not true about bones in Flash.
  - A. Support AS2 and AS3 files
  - B. Works with both symbols and shapes
  - C. Groups all the symbols on one layer
  - D. Works with only my own way

5. When you import PSD file to Flash, the layers can be converted to \_\_\_\_\_. (select two options)
- A. Groups
  - B. Layers
  - C. Symbols
  - D. Smart Objects
6. Using \_\_\_\_\_ is the best method to create a star that consists of 5 sides in Flash.
- A. the Rectangle Primitive tool
  - B. the Polystar tool
  - C. the Line tool to draw
  - D. Imported star symbol from photoshop
7. Each individual display object on the stage is referred to as a/an \_\_\_\_\_.
- A. Image
  - B. Symbol
  - C. Instance
  - D. None of the above
8. A/An \_\_\_\_\_ refers to what is going to happen once Flash detects the occurrence of an event.
- A. Listener
  - B. Response
  - C. Event source
  - D. Event target
9. We can turn a straight line into a curve with the \_\_\_\_\_.
- A. Lasso tool
  - B. Line tool
  - C. Sub selection tool
  - D. Arrow tool
10. Keyframes are \_\_\_\_\_.
- A. The in-between frames of the animation that tweens fill in for you
  - B. The frames of the animation where the important changes to the image happen
  - C. The layers that contain the symbols you drew
  - D. The borders that you can add around the Stage to frame the movie

11. \_\_\_\_\_ animation is the most tedious way to create animations.

- A. Shape Tween
- B. Motion Tween
- C. Mask
- D. Frame-by-Frame

12. \_\_\_\_\_, when used appropriately, adds to the viewer's experience, making for a much richer and enjoyable activity.

- A. Advertisements
- B. Sound
- C. Commericals
- D. Tweens

13. \_\_\_\_\_ is a way to partially hide an image in the layer immediately below another layer. The 2 layers get "locked" together to produce the effect.

- A. Morphing
- B. Tweening
- C. Stacking
- D. Masking

14. Graphic programs widely used in the graphic arts profession include \_\_\_\_\_

- A. desktop publishing programs, image editors and illustration programs
- B. artificial intelligence, virtual reality, and illustration programs
- C. mega media programs, image editors, and desktop publishing programs
- D. virtual reality, desktop publishing programs, and illustration programs

15. \_\_\_\_\_ allow you to make objects move in a more random or non-straight path.

- A. Mask
- B. Shape tween
- C. Guided layer
- D. Gravity effect

16. Use this to move symbols from one point to another. All animation happens between key frames (point A and B). The timeline turns purple between the key frames when this feature is being used. A dashed or dotted line in the coloured area indicates a problem. This is \_\_\_\_\_.

- A. Motion Tween
- B. Masking
- C. Shape Tween
- D. Action Script

17. \_\_\_\_\_ is a way to take a word and animate each letter separately.

- A. Distribute to layers
- B. Break apart
- C. frame-by-frame
- D. Convert to symbol

18. \_\_\_\_\_ panel indicates what settings are being used for objects and allows you to change those settings.

- A. Tools
- B. Actions
- C. Frames
- D. Properties

19. \_\_\_\_\_ should be used to quickly develop an interactive display of minerals that includes scroll bars, buttons, menus, and text fields?

- A. Wizards
- B. Components
- C. Adobe Media Encoder
- D. Dynamic Movie Clips

20. \_\_\_\_\_ ActionScript event will cause a movie to go to frame 50 of scene 2 and play when the frame is reached on the timeline.

- A. gotoandplay(50,2);
- B. gotoandplay(2,50);
- C. gotoandplay(50); scene(2);
- D. gotoandplay(2); Frame(50);

|                   |                             |                   |
|-------------------|-----------------------------|-------------------|
| <b>Section B</b>  | <b>Open Ended Questions</b> | <b>[80 marks]</b> |
| <b>Question 1</b> |                             | <b>[10 marks]</b> |

- a. Which type of tween requires that the tweened object is NOT a symbol? [0.5 mark]
- b. What is the main area where you will find all your image editing tools? [0.5 mark]
- c. What is the purpose of the pen tool? [0.5 mark]
- d. How do you apply shape tweening to text? [1 mark]
- e. It is important that only one idea is seen by the audience at a time. Give a reason for your answer. [1 mark]
- f. Video is one of the most important elements of multimedia. Discuss how is video used currently? [2 marks]
- g. What is the importance of Locking and Hiding a layer? [1 mark]
- h. You have added an animation to your course slide and need to make some edits. You have made the changes in the source file through Flash round tripping and saved it, but you can NOT see the changes in Captivate. Why does this happen? [1 mark]
- i. Explain three ways in which we can delete layers from the timeline. [1.5 marks]
- j. What is storyboarding? [0.5 mark]
- k. Write the steps to insert sound. [0.5 mark]

|                   |                   |
|-------------------|-------------------|
| <b>Question 2</b> | <b>[10 marks]</b> |
|-------------------|-------------------|

- a. There are some objects in flash for which we can give instance name and some which we can't give instance name. Which objects in flash can be given instance name? [2 marks]
- b. Imagine we have a movie clip with instance name as circle1\_mc. What will happen when you type in circle1\_mc.scaleY = 2 in the actions panel? [2 marks]
- c. ActionScript can be attached to a frame and also to an object. Explain how the scripts are triggered. [0.5 mark]
- d. How do you create the illusion of movement in an animation? [2 marks]
- e. Explain how do you create and preview buttons in flash. [2 marks]

- f. What do you understand by frames per second (FPS)? [0.5 mark]
- g. What you understand by the term Virtualization and how is it related to animation. [1 mark]

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**Question 3**

**[10 marks]**

- a. What are two advantages of using external video files for playback versus embedding the video in the .swf? [1 mark]
- b. Discuss the primary concerns that need to be considered while determining usability? [1 mark]
- c. Name and explain four things where Flash animation can be used? [2 marks]
- d. Explain what you understand by blue drop zone. Also state what single blue line and rectangle with blue border indicate. [1.5 marks]
- e. Discuss five things which can be determined after studying a timeline of a movie in flash. [2.5 marks]
- f. Differentiate between Bitmap and vector images with advantage and disadvantage [2 marks]

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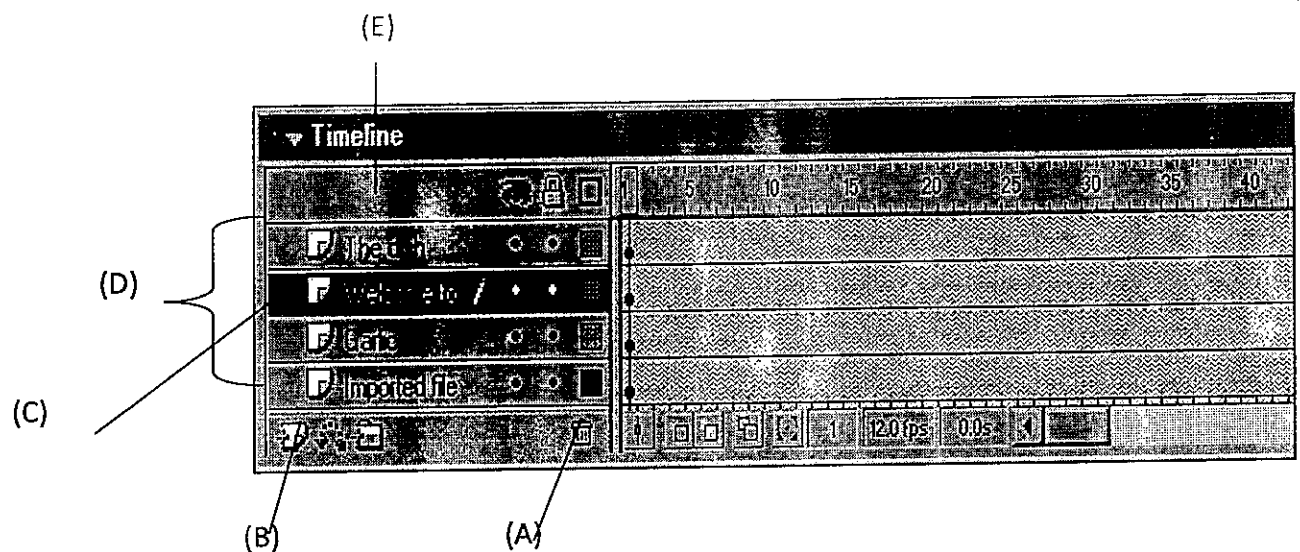
**Question 4**

**[15 marks]**

- a. Users can apply a solid colour, gradient, or bitmap (.JPEG, .TIFF, .GIF) to a shape fill. Discuss the process of applying a bitmap fill to a shape. [2 marks]
- b. Gradient fill is a multicolour fill in which a colour gradually changes into another colour. Differentiate between the two types of gradient which can be applied to a shape. [2 marks]
- c. Layers are used on a timeline as a way to organize objects. Discuss five types of layers. [2.5 marks]
- d. Explain the three types of symbols. Explain two ways to create a symbol. [2.5 marks]
- e. In flash, buttons have four states. Explain the four button states. [2 marks]
- f. While coding in Flash, exact syntax are essential. Explain four syntax rules which need to be followed while writing Action Script in Flash. [2.5 marks]

g. Label the different parts of the flash Timeline.

[1.5marks]



### Question 5

[20 marks]

- Explain what you understand by the term Inverse Kinematics. Elaborate on the use of bone tool. [1.5 marks]
- Flash supports three different types of tweening. Discuss the three different type of tweening. [1.5 marks]
- Explain four rules which have to be followed while giving instance name. [2 marks]
- Write the shortcut keys for the following: [3 marks]

| Function                          | Shortcut |
|-----------------------------------|----------|
| A. Create a key frame             |          |
| B. Delete frames                  |          |
| C. Insert frame                   |          |
| D. Insert New Symbol              |          |
| E. Open the library panel         |          |
| F. Publishing the flash animation |          |

- Write the steps to create the lighting effect together with thunder sound. [2 marks]
- It is very important to consider the tips provided by the experts from the animation field. Provide at least six animation tips and techniques. [6 marks]

- g. What is a movie clip in flash? Explain at least four advantages of using a movie clip. [2 marks]
- h. What is the advantage of having a pre-loader in your animation? [0.5 mark]
- i. Write the steps used in guide animation. [1.5 marks]

**Question 6** [15 marks]

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- a. Planning is one of the most essential tools in your entire animation toolbox. Discuss at least seven points which need to be considered when planning an animation. [3 marks]
- b. The main purpose of the principles of Animation was to produce an illusion of characters adhering to the basic laws of physics, but they also dealt with more abstract issues, such as emotional timing and character appeal. Discuss the twelve Principles of animation with examples. [12 marks]

**End of Exam**

