



UNIVERSITY EXAMINATIONS

**FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD OF
BACHELOR OF SCIENCE APPLIED COMPUTER SCIENCE**

ACMP 426: WEB MEDIA TECHNOLOGIES

STREAMS: BSCAPPLIED COMPUTER SCIENCE

TIME: 2 HOURS

DAY/DATE:TUESDAY 5/12/2017

2.30 P.M – 4.30 P.M

INSTRUCTIONS:

- **Answer Question ONE and any other TWO questions.**
- **Diagrams should be used whenever they are relevant to support an answer.**
- **Sketch maps and diagrams may be used whenever they help to illustrate your answer**
- **Do not write anything on the question paper**
- **This is a closed book exam, No reference materials are allowed in the examination room**
- **There will be No use of mobile phones or any other unauthorized materials**
- **Write your answers legibly and use your time wisely**

SECTION A

ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE [30 MARKS]

- a) Describe phishing as a tool for identity theft in websites and web applications [4 Marks]
- b) Explain measures you would take to protect your development from pharming [3 Marks]
- c) Describe the advantages and disadvantages of animations in a Learning Management System. [6 Marks]

- d) Explain when you would use each of the following image formats:
- i. Png
 - ii. Gif
 - iii. Jpeg
- [3 Marks]
- e) Discuss the need for the following in multimedia technologies”
- i. Text
 - ii. Audio
- [4 Marks]
[4 Marks]
- f) Differentiate between Trade Secrets, Copyright and Patents in computer innovations.
- [6 Marks]

SECTION B

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO [20 MARKS]

As the new marketing manager for the annual state fair, Franck was responsible for working with a design team to create a new Web site. The existing state fair website was simple but functional. In other words, Franck thought, totally boring. He reviewed the market research collected by his predecessor a couple years earlier, which concluded that fair visitors in general were not technologically savvy or affluent. But surely that had changed by now. It was time to create the best state fair Web site ever. Franck envisioned a Web site that was as exciting as the state fair itself — neon text everywhere, animation and audio clips playing, everything constantly in motion. He wanted Web site visitors to get a taste of the fair experience so that they would rush to the fairgrounds for more. Franck instructed the Web design team to use only the latest and greatest technologies, advising them that money was not an issue. Within a week of the Web site's launch, the state fair's customer service representatives were overwhelmed with complaints and questions about the new site. The volume of e-mail doubled, with site visitors asking for simple information that was already posted on the site. A few people wrote to Franck and complimented him on the exciting new site, but the site's traffic declined.

- a) Franck encountered a common pitfall in designing this Web site. What should he have done before deciding on a multimedia-intensive site? [8 Marks]
- b) What are some ways that Franck could have used multimedia appropriately and made the site engaging without turning away visitors? [8 Marks]
- c) Is Franck solely to blame for the decline in traffic after the launch of the redesigned site? Explain your answer. [4 Marks]

QUESTION THREE [20 MARKS]

- a) Explain briefly for what specific functions you would use the following in web media creation
- i. XML [3 Marks]
 - ii. DHTML [3 Marks]
 - iii. AJAX [3 Marks]
 - iv. Tomcat [3 Marks]
 - v. Node.js [3 Marks]

- b) Highlight the benefits you would obtain from the Kenya Copyright Board as a web media entrepreneur. [5 Marks]

QUESTION FOUR [20 MARKS]

- a) Describe the role of the following Kenya Government institutions in development of web media technologies:
- i. KE-CIRT [3 Marks]
 - ii. KENET [3 Marks]
 - iii. The Kenya ICT Authority [3 Marks]
 - iv. The Communications Commission of Kenya [3 Marks]
- b) Discuss the effects of cloud computing to web media developers [8 Marks]

QUESTION FIVE [20 MARKS]

- a) Explain the steps you would take to publish your digital video on YouTube [6 Marks]
- b) YourDoctoris a web system that is intended to connect patients with medical practitioners countrywide. You have been awarded the contract to develop the web platform. Show how you are going to reference Schneidermann's golden rules of interface design in order to deliver a robust, user friendly web platform. [8 Marks]
- c) Is poor software development the biggest cyber threat? Discuss [6 Marks]
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