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**KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR**  
**FOURTH YEAR, FIRST SEMESTER EXAMINATION**  
**FOR THE BACHELOR OF BUSINESS AND INFORMATION TECHNOLOGY**  
**KBI 2411 – MULTIMEDIA DEVELOPMENT**

Date: 06<sup>TH</sup> December 2024

Time: 2:30PM – 4:30PM

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

**Citizen TV**

Citizen TV, one of the largest media houses in Kenya, has embraced multimedia technologies to offer diverse and engaging content to its audience. From news broadcasts to entertainment programs, Citizen TV uses a wide range of multimedia elements such as text, images, video, and animation to enhance user experience. Their approach to multimedia development ensures that their content is accessible across multiple platforms, including television, websites, and social media channels. By integrating interactive multimedia applications and adhering to multimedia design principles, Citizen TV maintains a leading role in delivering high-quality digital content.

In developing their multimedia content, Citizen TV employs various authoring tools like Adobe Premiere Pro and Final Cut Pro for video editing, Photoshop for image manipulation, and Adobe After Effects for animations. Additionally, they use content management systems (CMS) to manage and deliver content efficiently. As the media landscape evolves, Citizen TV continues to adapt by integrating modern trends such as live-streaming and mobile-friendly content. The media house follows a well-structured Multimedia Development Life Cycle (MDLC), ensuring that projects are efficiently planned, executed, and monitored.

With the rise of social media, Citizen TV has also embraced the shift by creating content tailored for platforms like YouTube, Instagram, and Facebook. This has required the team to employ multimedia design principles, such as user-centric design, to create content that resonates with their online audience. Through effective project management and collaboration among multimedia development teams, Citizen TV delivers visually appealing and highly interactive content to its viewers.

- a) Define multimedia and explain how Citizen TV incorporates multimedia elements into its content. (3 Marks)
- b) What are some challenges Citizen TV may face during the planning phase of a multimedia project, and how can these be mitigated? (5 Marks)
- c) Discuss the importance of file compression in multimedia development and how Citizen TV might apply this technique when creating online content. (5 Marks)
- d) How does Citizen TV's approach to project planning and management contribute to the success of its multimedia projects? (4 Marks)
- e) Explain how Citizen TV integrates trends like live streaming and social media into its multimedia strategy. (5 Marks)

- f) How might Citizen TV use interactive multimedia applications to increase audience engagement on digital platforms? (4 Marks)
- g) In what ways do current trends in multimedia (such as mobile-first content) influence the multimedia development process at Citizen TV? (4 Marks)

### **QUESTION TWO (20 MARKS)**

- a) Evaluate the role of the five core components of multimedia in creating engaging multimedia experiences. (4 Marks)
- b) Provide an example where text-based effects significantly contributed to a multimedia project. Justify why these effects were essential for the project's success. (8 Marks)
- c) You have been hired as a multimedia designer to improve the user experience of an educational app aimed at young learners (ages 15-22). The current app has received feedback from users stating that navigation is confusing, and the design elements are overwhelming, leading to low engagement.
  - i) Examine how Human-Computer Interaction (HCI) principles can be applied to address these issues and improve the app's usability. (4 Marks)
  - ii) Propose specific design changes that would make the interface more intuitive and user-friendly for the target age group. (4 Marks)

### **QUESTION THREE (20 MARKS)**

- a) Compare bitmap and vector images, determining which type would be most suitable for various multimedia applications. Support your answer with specific scenarios. (4 Marks)
- b) You are part of a multimedia development team working on a marketing campaign for a new product launch. The project involves creating a promotional video and web banners that require high-quality visuals. However, many of the product photos provided by the client are poorly lit, have distracting backgrounds, and lack clarity, which negatively impacts the overall presentation.
  - i) Propose how advanced image editing techniques can be used to enhance these product images and solve the quality issues. (4 Marks)
  - ii) Using a Adobe Photoshop tool, outline the techniques you would apply to improve the images for use in the multimedia project. (4 Marks)
- c) Explain the Multimedia Development Life Cycle (MDLC) and critically assess how following the MDLC can enhance project outcomes. (8 Marks)

### **QUESTION FOUR (20 MARKS)**

- a) Analyze how Virtual Reality (VR) and Augmented Reality (AR) are changing the landscape of multimedia development. Support your analysis with recent examples. (4 Marks)
- b) Describe a potential challenge in developing animations for a multimedia project using Adobe Animate and propose a solution to overcome it (8 Marks)
- c) Propose a project management strategy for a multimedia development team, addressing budgeting, scheduling, and task allocation. Justify how this strategy would lead to successful project completion. (8 Marks)

### **QUESTION FIVE (20 MARKS)**

- a) Describe a potential challenge in developing animations for a multimedia project using Adobe Animate and propose a solution to overcome it (6 Marks)
- b) Contrast the benefits and challenges of using 2D versus 3D animation in multimedia development. Recommend an animation type based on a specific use case. (8 Marks)
- c) Identify potential risks in managing a multimedia project and propose techniques to ensure the project stays on schedule and within budget (6 Marks)