



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2015/2016**

COURSE NAME : MULTIMEDIA SYSTEM AND APPLICATION
COURSE CODE : BIM 20404
PROGRAMME CODE : BIM
EXAMINATION DATE : JUNE / JULY 2016
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

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- Q1 (a)** Name the transmission method in **Figure Q1(a)** to distribute multimedia information over the network.

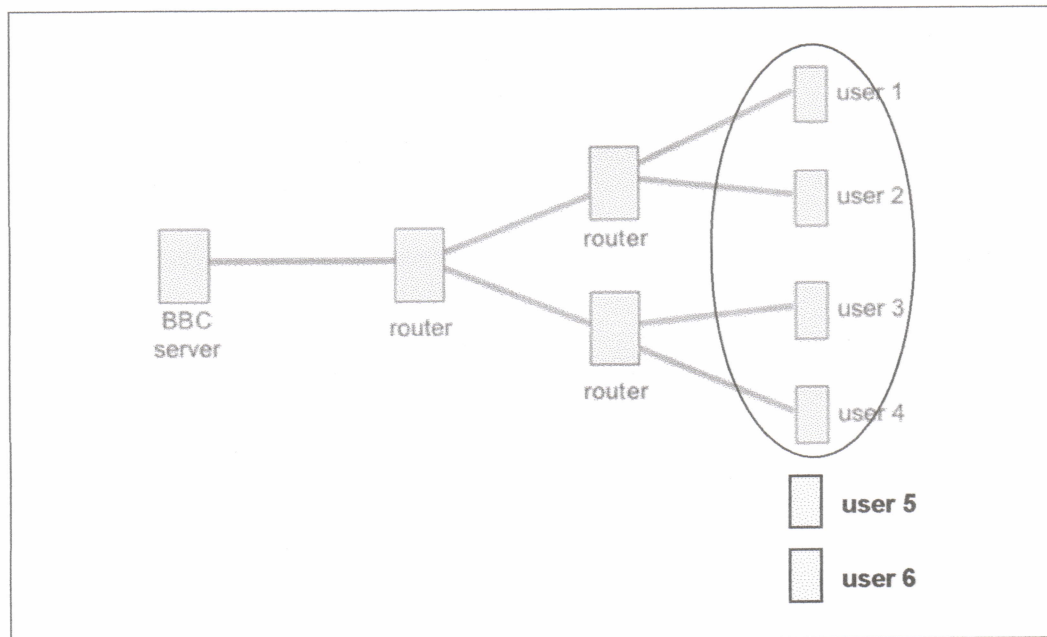


Figure Q1(a)

(1 mark)

- (b) Explain the transmission method answered in **Q1(a)**. (2 marks)
- (c) Give **TWO (2)** examples of multimedia application which use the transmission method answered in **Q1(a)**. (2 marks)
- (d) Explain **ONE (1)** of any other transmission method. Support your explanation with an appropriate diagram. (4 marks)
- (e) Real-time Protocol (RTP) is designed for the transport of real-time data in **Figure Q1(a)**.
- (i) Name the companion protocol for RTP. (1 mark)
- (ii) Describe the function of companion protocol in **Q1(e)(i)**. (4 marks)

- (iii) Describe **THREE (3)** types of companion protocol packets in **Q1(e)(i)**. (6 marks)

Q2 Multimedia database is a database containing one or more multimedia objects.

- (a) What is multimedia object? Give **TWO (2)** examples of multimedia object. (4 marks)
- (b) Differentiate between registering data and descriptive data. Give **TWO (2)** examples of each category for images. (8 marks)
- (c) Based on **Figure Q2(c)**, discuss the most appropriate content-based searching technique used to retrieve the butterfly image from multimedia database.

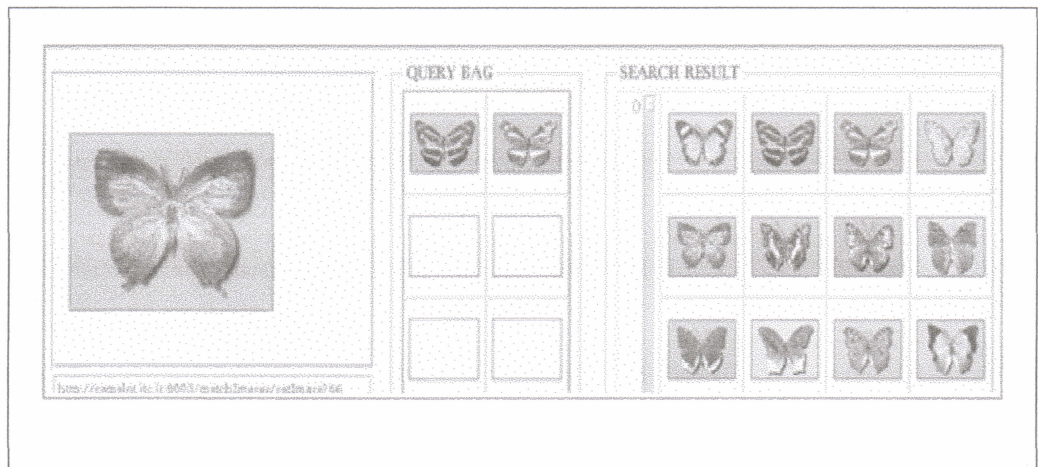


Figure Q2(c)

(8 marks)

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Q3 Question **Q3(a)-Q3(c)** are based on the given scenario.

MID Multimedia Enterprise plans to develop an interactive word games application for senior citizens entitled "Fun Scrabble". The games is expected to have multi-player capability (for playing with family and friends at a distance), hear a word aloud and have the narration to read the instruction for them.

- (a) Suggest an appropriate platform (mobile web-based or desktop web-based) to develop this application. Give **TWO (2)** reasons. (4 marks)
- (b) Discuss **THREE (3)** technical design issues that need to be considered before the development process of the games can be started. (6 marks)
- (c) Draw an interface for the "Fun Scrabble" games that fulfill the user requirement as stated in the given scenario. (10 marks)

Q4 HTML and XML are two examples of markup language system for annotating a document in a way that is syntactically distinguishable from the text.

- (a) Give **THREE (3)** differences between HTML and XML. (6 marks)
- (b) You are given a task by your lecturer to develop a website. If you are given a choice to use either HTML or XML as the programming language, which language that you most prefer? Give **TWO (2)** reasons. (4 marks)
- (c) Based on the answer in **Q4(b)**, give **TWO (2)** reasons why you are not choosing the other programming language. (4 marks)

- (d) Based on the chosen programming language in **Q4(b)**, write a code segment to produce the following output:

Reference Book:

Multimedia Systems and Applications

Mr. Joe Shmoe

Star Publisher, Boston, USA, 2014

(6 marks)

-END OF QUESTION -