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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015**

COURSE NAME : DIGITAL MEDIA PROCESSING
COURSE CODE : BIM 33303
PROGRAMME : 2 BIM / 3 BIM
EXAMINATION DATE : JUNE 2015 / JULY 2015
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **TWO (2)** PAGES

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- Q1** (a) Differentiate between signal separation and signal restoration.
(4 marks)
- (b) Determine **TWO (2)** situations each where signal separation and signal restoration is applicable.
(8 marks)
- (c) Analyze **TWO (2)** considerations that need to be taken into account when selecting a digital audio encoder.
(8 marks)
- Q2** (a) Analyse the contrast between video signals and still images.
(5 marks)
- (b) Explain **TWO (2)** advantages of video.
(4 marks)
- (c) Discuss **TWO (2)** types of redundancy that is removed during a video compression process.
(6 marks)
- Q3** (a) List **THREE (3)** goals of motion detection.
(3 marks)
- (b) Differentiate between motion detection and motion estimation.
(4 marks)
- (c) Block-based motion estimation is the most practical approach to obtain motion compensated prediction frames. Discuss **TWO (2)** situations where block-based motion estimation is not applicable.
(8 marks)
- Q4** Digital media processing is applied in various areas such as consumer electronics, military, transportation, medical and security. Compare and contrast the application of facial detection and video surveillance for security purposes.
(20 marks)

- END OF QUESTION -