UNIVERSITI TUN HUSSEIN ONN MALAYSIA

PEPERIKSAAN AKHIR
SEMESTER 1
SESI 2012/2013

NAMA KURSUS	:	TEKNOLOGI PENERBITAN VIDEO
KOD KURSUS	:	DEV 3213
PROGRAM	:	3DET
TARIKH PEPERIKSAAN	:	OKTOBER 2012
JANGKA MASA	:	2½ JAM
ARAHAN	:	JAWAB **SEMUA** SOALAN

KERTAS SOALAN INI MENGANDUNGI LIMA (5) MUKA SURAT

S1 (a) Nyatakan perbezaan diantara *video production* dan *television production.*

(5 markah)

(b) Sebutkan empat (4) langkah permulaan yang perlu diketahui sebelum melakukan peroses penerbitan video.

(5 markah)

(c) Peroses penerbitan video melalui tiga (3) peringkat. Nyatakan ketiga-tiga peringkat serta huraikan setiap satunya secara ringkas.

(15 markah)

S2 (a) Takrifkan istilah *video editing.*

(5 markah)

(b) Terangkan mengapa rakaman video perlu diedit?

(6 markah)

(c) (i) Takrifkan *rules of thirds.*

(ii) Lakarkan gambaran bagi *rules of thirds.*

(6 markah)

(d) (i) Merujuk rajah S2(d), labelkan sudut rakaman asas video mengikut nombor yang diberi.

(4 markah)

(ii) Terangkan perbezaan diantara *long shot, medium shot,* close-*up* dan *extreme close-up.*

(4 markah)

S3 (a) (i) Terangkan mengapa *transition* penting dalam peroses pengeditan video.

(4 markah)

(ii) Apakah perkara yang perlu dielakkan dalam peroses *transition*?

(2 markah)

(b) Bincangkan secara ringkas kesan *picture-in-picture* dan keperluan kepada kesan ini.

(6 markah)

(c) Senaraikan enam (6) perkara yang tidak boleh dilakukan semasa membuat rakaman video.

(6 markah)

(d) (i) Huraikan secara ringkas rakaman *panning* dan *tilt*.

(ii) Nyatakan kaedah rakaman *panning* dan *tilt*.

(7 markah)

S4 (a) Terangkan fungsi *ND filters* pada sesebuah kamera.

(6 markah)

(b) Bincangkan fungsi-fungsi kamera berikut:

(i) *Aperture*

(ii) *ISO speed*

(iii) *Shutter speed*

(6 markah)

(c) (i) Bincangkan secara ringkas fungsi *white balance*.

(4 markah)

(ii) Terangkan tetapan *white balance* secara manual.

(4 markah)

(d) (i) Nyatakan kepentingan pencahayaan dalam perakaman video.

(1 markah)

(ii) Senaraikan dua (2) kebaikan dan keburukan pencahayaan berterusan *(continous lighting)*.

(4 markah)

PEPERIKSAAN AKHIR

SEMESTER/SESI	: 1/2012/2013	PROGRAM	: 3 DET
KURSUS	:TEKNOLOGI PENERBITAN VIDEO	KOD KURSUS	: DEV3213

objek

1. _____

2. _____

3. _____

4. _____

Rajah S2(d)

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER 1
SESSION 2012/2013

COURSE NAME	:	COMPUTER AND DATA COMMUNICATION
COURSE CODE	:	DEE 3213
PROGRAMME	:	3 DEE/DET
EXAMINATION DATE	:	OCTOBER 2012
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **FIVE (5)** QUESTIONS ONLY

THIS QUESTION PAPER CONSISTS OF SIX (6) PAGES

Q1 (a) (i) List **four** (4) application areas for wireless LAN.

(ii) Describe briefly the areas of application listed above.

(16 marks)

(b) Explain a differences between a single-cell and multiple-cell wireless LAN.

(4 marks)

Q2 (a) Explain two (2) advantages of Virtual Path Connection (VPC).

(4 marks)

(b) Briefly explain the relationship between Virtual Channel Connection (VCC) and Virtual Path Connection (VPC) .

(6 marks)

(c) Sketch the physical transmission path for Q2 (b).

(4 marks)

(d) Figure Q2 depicts a simplified scheme for CDMA in a DSSS system. All seven logical channels use DSSS with a spreading code of 7 bits. Assume that all sources are synchronized. If all seven sources transmit a data bit, in the form of a 7-bit sequence, the signals from all sources combine at the receiver so that two positive or two negative values reinforce and a positive and negative value cancel. To decode a given channel, the receiver multiplies the incoming composite signal by spreading code for that channel, sums the result, and assigns binary 1 for a positive value and binary 0 for a negative value.

(i) Identify what are the spreading codes for channel 0 to 3?

(4 marks)

(ii) Determine the receiver output measurement for channel 1 and data bit assigned.

(2 marks)

Q3 (a) (i) State **four** (4) generic architectural components of public telecommunication networks.

(ii) Define each term stated for Q3 (a) (i).

(8 marks)

(b) If a station has a message to send through a packet-switching network that is of length greater than the maximum packet size, it breaks the message up into packets and sends these packets, one at a time, to the network. A question arises as to how the network will handle this stream of packets as it attempts to route them through the network and deliver them to the intended destination. Explain in detail **two** (2) methods that should be used in contemporary networks to deliver the messages.

(12 marks)

Q4 (a) (i) List **three** (3) common topologies for LANs.

(ii) Sketch the topologies that have been selected.

(6 marks)

(b) Differentiate between ALOHA and slotted ALOHA.

(2 marks)

(c) A signal radiated from an antenna travels along one of **three** (3) routes: ground wave, sky wave, or line of sight (LOS).

(i) Sketch the differences between Wireless Propagation using Ground Wave, Sky Wave and Line of Sight.

(ii) In wireless line of sight (LOS) transmission, there are various transmission impairments that will affect the quality of signal transmitted. Give **three** (3) examples of impairments.

(iii) From the answer in Q4 (c) (ii), explain how they affect the signal.

(12 marks)

Q5 (a) Some form of multiplexing techniques are used to make efficient use of high-speed telecommunications lines. Multiplexing allows several transmission sources to share a larger transmission capacity.

(i) Explain the Frequency Division Multiplexing (FDM) technique.

(ii) Describe the relationship between the number of slots in a frame and the number of input lines for synchronous TDM.

(iii) Draw the synchronous TDM frames showing the character data for the following information of four (4) signal sources:

Source one message	: EEE
Source two messages	: A
Source three messages	:
Source four messages	: YYYY

(16 marks)

(b) In wireless LANs, there are two common ways of sharing the radio spectrum, *Frequency hopping* and *Direct Sequence Spread Spectrum*.Briefly describe **one** (1) of them.

(4 marks)

Q6 (a) Briefly explain the operation of circuit switching and packet switching.

(6 marks)

(b) Discuss how does ATM network manage to perform the transfer of cells faster compared with router-based network.

(8 marks)

(c) Briefly explain why frame relay is not suitable in voice or video transmission.

(6 marks)

Q7. To make efficient use of high-speed telecommunication lines, some form of multiplexing is used. Multiplexing allows several transmission sources to share a larger transmission capacity.

(a) The two common forms of multiplexing are Frequency Division Multiplexing (FDM) and Time Division Multiplexing (TDM).

(i) State the difference between FDM and TDM.

(4 marks)

(b) Explain general mechanism of error detection.

(2 marks)

(c) Figure Q7 (c) shows a multiplexer with a four-slot output. State the output if the multiplexer is :

(i) Synchronous TDM
(ii) Asynchronous TDM.

(8 marks)

(d) One of the most common and powerful error-detection codes is Cyclic Redundancy Check (CRC). By implementing this algorithm,

(i) Find the CRC for an 8-bit sequence 11100011 message and a divisor of 110011.

(ii) State the transmitted message.

(6 marks)

PEPERIKSAAN AKHIR /FINAL EXAMINATION

SEMESTER/SESI : I/2012/2013 PROGRAM : 3 DEE, DET
KURSUS : PERHUBUNGAN DATA DAN KOMPUTER KOD KURSUS : DEE 3213

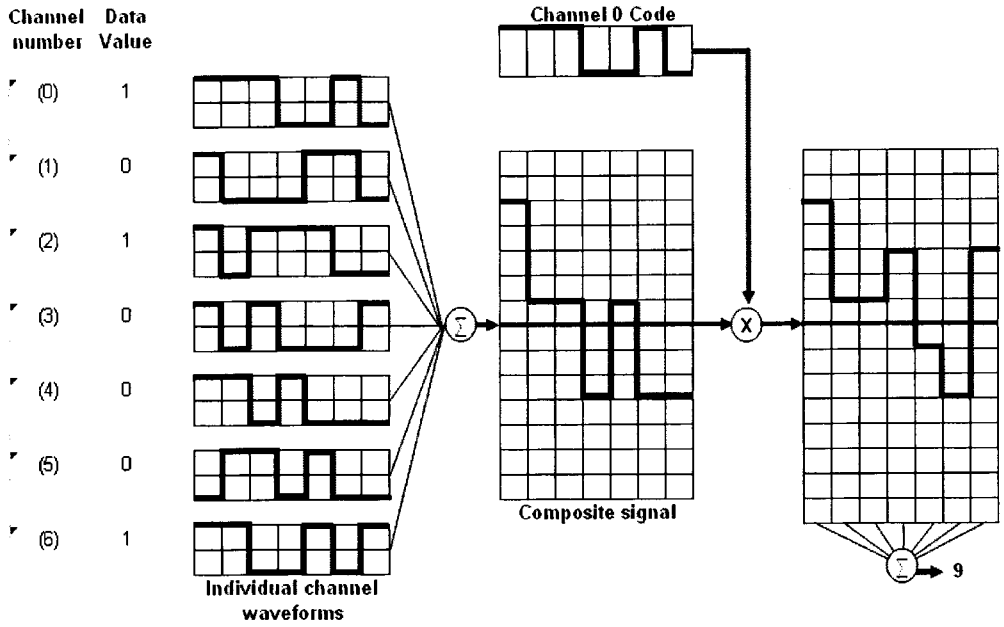

FIGURE Q2

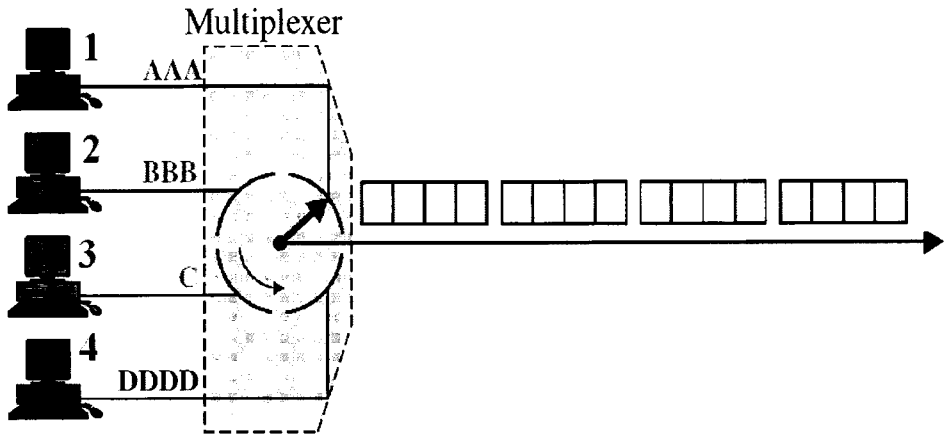

FIGURE Q7 (C)