UNIVERSITI TUN HUSSEIN ONN MALAYSIA

PEPERIKSAAN AKHIR
SEMESTER I
SESI 2009 / 2010

NAMA MATA PELAJARAN	:	REALITI MAYA
KOD MATA PELAJARAN	:	BIT 3253
KURSUS	:	3 BIT
TARIKH PEPERIKSAAN	:	NOVEMBER 2009
JANGKA MASA	:	2 JAM 30 MINIT
ARAHAN	:	JAWAB **SEMUA** SOALAN

Instruction: Answer **ALL** questions.

Q1   Explain the goals of virtual reality.

(5 marks)

Q2   Given the following scenario:

"The user is driving in a virtual world as displayed to him visually through the head-mounted display, aurally through the earphone, and kinesthetically through the handle mechanism. The displays are generated and controlled by the computer program. The computer also accepts user action (e.g., head movement of the user) through sensors and processes it to reflect it to the virtual environment and the display. A more abstract view of the system is shown in the lower block diagram. "

Draw a diagram for the virtual driving simulation.

(15 marks)

Q3   Discuss what is Augmented Reality (AR).

(10 marks)

Q4   Given the following scenario:

"**You** are approached by the curator of the Johor Museum who wants to use virtual reality as part of a new exhibit. She would like you to make a proposal to show how this would work. You will have four meters in front of the screen that will be open space. You can assume you will have the same tools available to create the virtual world, but a longer timeframe."

(a)   List **THREE (3)** the virtual reality hardware/tool that you may use in this project.

(3 marks)

(b)   Explain **FIVE (5)** requirements for a virtual reality environment.

(15 marks)

(c)   Draw **SIX (6)** scenes for this project.

(12 marks)

Arahan : Jawab **SEMUA** soalan.

S1   Jelaskan tujuan utama realiti maya.

(5 markah)

S2   Diberi senario seperti berikut:

"The user is driving in a virtual world as displayed to
him visually through the head-mounted display, aurally
through the earphone, and kinesthetically through the
handle mechanism. The displays are generated and
controlled by the computer program. The computer also
accepts user action (e.g., head movement of the user)
through sensors and processes it to reflect it to the
virtual environment and the display. A more abstract view
of the system is shown in the lower block diagram. "

Lukiskan diagram untuk simulasi pemanduan.

(15 markah)

S3   Terangkan apa yang dimaksudkan dengan *Augmented Reality (AR)*.

(10 marks)

S4   Diberi senario seperti berikut:

"**You** are approached by the curator of the Johor Museum
who wants to use virtual reality as part of a new
exhibit. She would like you to make a proposal to show
how this would work. You will have four meters in front
of the screen that will be open space. You can assume you
will have the same tools available to create the virtual
world, but a longer timeframe."

(a)   Senaraikan perkakasan yang akan digunakan untuk projek di atas.

(3 marks)

(b)   Terangkan **LIMA (5)** keperluan untuk projek di atas.

(15 marks)

(c)   Lukiskan ENAM (6) babak yang akan digunakan di dalam projek ini.

(12 marks)