UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2019/2020

COURSE NAME	:	COMPUTER TECHNOLOGY AND MULTIMEDIA
COURSE CODE	:	DAE 10403
PROGRAMME CODE	:	DAE
EXAMINATION DATE	:	DECEMBER 2019 / JANUARY 2020
DURATION	:	2 HOURS
INSTRUCTION	:	ANSWERS **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **NINE (9)** PAGES

TERBUKA

PART A : MULTIPLE CHOICE QUESTIONS

(1 marks each)

Q1 Which invention which replaced vacuum tube and made computer much smaller (2nd generation of modern computer)?
- A. Random Access Memory (RAM)
- B. Read Only Memory (ROM)
- C. Transistor
- D. Transformer

Q2 This invention started the 3rd generation of modern computer
- A. Random Access Memory (RAM)
- B. Solid State Drive (SSD)
- C. Integrated Circuit (IC)
- D. Central Processing Unit (CPU)

Q3 What are the **four (4)** stages of computing order?
- A. Input, output, storage, processing
- B. Input, processing, storage, output
- C. Input, processing, output, storage
- D. Input, storage, processing, output

Q4 This invention started the 4th generation of modern computer.
- A. Microprocessor
- B. Solid State Drive (SSD)
- C. Integrated Circuit (IC)
- D. Central Processing Unit (CPU)

Q5 What is the common material used in fabricating microprocessor?
- A. Silicon
- B. Copper
- C. Aluminium
- D. Quartz

Q6 Which of these statements is **TRUE** about RAM
- A. Volatile memory
- B. Permanently store the data
- C. Non-Volatile memory
- D. Faster than cache memory

Q7 Unit for decoding and execution of instructions rapidly, one after another is called
- A. AL unit
- B. Backup device
- C. Keyboard
- D. Control unit

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Q8   Input and Output devices such as monitors, and keyboards are classified as
   A. Arithmetic units
   B. Control unit devices
   C. Peripheral devices
   D. Main store devices

Q9   Magnetic tape unit is classic example of
   A. Storage devices
   B. Backup storage devices
   C. Online devices
   D. Offline devices

Q10   Resolution of display card is
   A. The number of pixels
   B. The number of colours
   C. The number of dots per inch
   D. The amount of memory

Q11   Which of the following are types of application software?
   I   Disk Management
   II   Spreadsheet
   III   Presentation Graphic
   IV   Word Processing

   A. I, II & III
   B. I, III & IV
   C. II, III & IV
   D. All of the above

Q12   Wi-fi uses which which frequency?
   A. 2.4 GHz
   B. 5 GHz
   C. Answer A and B
   D. None above

Q13   Below is advantages of Software Suites **EXCEPT**
   A. Likely to require significant effort for stuff
   B. Identical or very similar GUI
   C. Less cost rather than buying individual package.
   D. Designed to interface with each other

Q14 What is Spreadsheet?
  A. Documents containing a group of numbers and other data organized into rows and columns.
  B. Documents containing a group of visual and image can be used as printed
  C. Documents containing written documents such letters, contracts, and manuscripts.
  D. Documents containing a group of video and image can be represented as live

Q15 All statements below are **TRUE** regarding utility programs **EXCEPT**
  A. Using certain utility program, user are able to restore operating system back to default installation
  B. Utility programs enable user to manage and maintain file in the computer
  C. Utility program is only stand alone software and built in program with operating system.
  D. Search tool is one of the utility program.

Q16 Computer on a network is uniquely identified by
  A. username
  B. IP Address
  C. login
  D. Computer Brand

Q17 Bluetooth is an example of
  A. Personal Area Network
  B. Wide area network
  C. Metropolitan area network
  D. Virtual private network

Q18 What is the use of Bridge in Network?
  A. to separate LANs
  B. to connect LANs
  C. To stop networking
  D. to control Network Speed

Q19 The _____ is the physical path over which a message travel
  A. Path
  B. Medium
  C. Protocol
  D. Route

Q20 Data communication system within a building or campus is_____
  A. Wide area network
  B. Local Area Network
  C. Integrated Circuit (IC)
  D. Internet

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Q21 A video consists of a sequence of
    A. Frames
    B. Signals
    C. Packets
    D. Slots

Q22 Streaming stored audio/video, files are compressed and stored on a
    A. IP
    B. Server
    C. Domain
    D. Internet

Q23 In Real Time Interactive Audio Video, Jitter is introduced in real-time data by delay between
    A. Frames
    B. Layers
    C. Pixels
    D. Packets

Q24 In Real Time Interactive Audio Video, data are stored in buffer at a possibly variable
    A. Pixels
    B. Packets
    C. Rates
    D. Bytes

Q25 A smaller version of an image is called a:
    A. clipart
    B. bitmap
    C. portable network graphic
    D. thumbnail

Q26 The slide _____ controls text characteristics, background color and special effects, such as shadowing and bullet style.
    A. presentation
    B. master
    C. show
    D. sorter

Q27 Designed to create a particular look, a _____ contains colour schemes, slide and title masters with custom formatting and font's styles.
    A. template
    B. presentation
    C. slide
    D. background

Q28 _____ is the special effect used to introduce each slide in a slide presentation.
   A. Animation
   B. Bulleting
   C. Transition
   D. Mapping

Q29 A _____ displays a list of commands and usually appears in the toolbar at the top of the screen.
   A. view
   B. menu
   C. kit
   D. list

Q30 A _____ can be added to your presentation and then used to go to a variety of locations, for example, a web address, an e-mail address, a custom show or document, just to name a few.
   A. menulink
   B. hyperlink
   C. toollink
   D. slidelink

Q31 Which disk read the data by reflecting pulses of laser beams on the surface:
   A. Magnetic disk
   B. Hard disk
   C. Floppy disk
   D. Optical disk

Q32 Which parameter defines number of times electron beam scans screen in a second:
   A. Refresh rate
   B. Data transfer rate
   C. Pitch rate
   D. All of above

Q33 Which is considered as semi-conductor memory , which is made up of static RAM:
   A. Primary memory
   B. Cache memory
   C. Both A & B
   D. None of above

Q34 Which is not the browser:
   A. Internet Explorer
   B. Opera
   C. Mozilla Firefox
   D. Google

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Q35   TCP/IP is a:
- A.   Network Hardware
- B.   Network Software
- C.   Protocol
- D.   None above

Q36   TCP/IP mainly used for:
- A.   File Transfer
- B.   Email
- C.   Remote Login Service
- D.   All above

Q37   Which IP address is reserved for loop back or local host:
- A.   192.168.0.0
- B.   127.0.0.0
- C.   127.0.0.1
- D.   None above

Q38   Who provide internet connection:
- A.   TCP
- B.   ISP
- C.   FTP
- D.   HTTP

Q39   URL stands for:
- A.   Universal Resource Locator
- B.   Uniform Resource Locator
- C.   Uniform Radio Locator
- D.   None of above

Q40   In HTTPS 'S' is stands for:
- A.   Simple
- B.   Secured
- C.   Server
- D.   None of above

PART B : STRUCTURED QUESTIONS

Q41 **(a)** Define computer networks and network topology.

(3 marks)

(b) Sketch and briefly discuss **four (4)** types of networks topologies in computer network.

(8 marks)

(c) Explain briefly advantages and disadvantages of each topology.

(4 marks)

Q42 **(a)** How many stages in a multimedia project? List them out one by one in sequence.

(6 marks)

(b) State **three (3)** common multimedia content distribution channel/medium.

(3 marks)

(c) Describe **three (3)** consideration on choosing which channel/medium stated in Q22 (b) for media distribution.

(6 marks)

Q43 **(a)** Discuss **two (2)** importance of text application in multimedia presentation.

(4 marks)

(b) Clarify **two (2)** type of digital audio format with example.

(6 marks)

(c) Briefly explain about digital video container.

(2 marks)

(d) List down **three (3)** audio or video format use in multimedia presentation.

(3 marks)

Q44 **(a)** Explain **three (3)** important aspect (or settings) to be considered when compressing a video.

(5 marks)

(b) (i) A video stream with 30 frames per second playback. If each frame consists of 160 X 120 pixels of 24 bit colours depth. Calculate the total storage required to store the above video file for ten minutes.

(ii) A typical, uncompressed high-quality audio file has a sample rate of 44,100 samples per second, a bit depth of 16 bits per sample and 2 channels of stereo audio. Calculate the bitrate and the file size if it's run for 4 minutes long.

(10 marks)

Q45 **(a)** What does the following acronyms stands for?
  (i) HTML
  (ii) HTTP
  (iii) WWW
  (iv) ISP
  (v) FTP

(5 marks)

(b) Explain the following computer security threats:
  (i) Virus
  (ii) Worm
  (iii) Trojan
  (iv) Phishing
  (v) spoofing

(10 marks)

-END OF QUESTIONS –