UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023

COURSE NAME : INFORMATION TECHNOLOGY IN EDUCATION

COURSE CODE : BBD 10803

PROGRAMME CODE : BBB/BBC/BBD/BBF/BBG

EXAMINATION DATE : JULY/AUGUST 2023

DURATION : 3 HOURS

INSTRUCTION : 1. ANSWER ALL QUESTIONS

2.THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**

3. STUDENTS ARE **PROHIBITTED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK
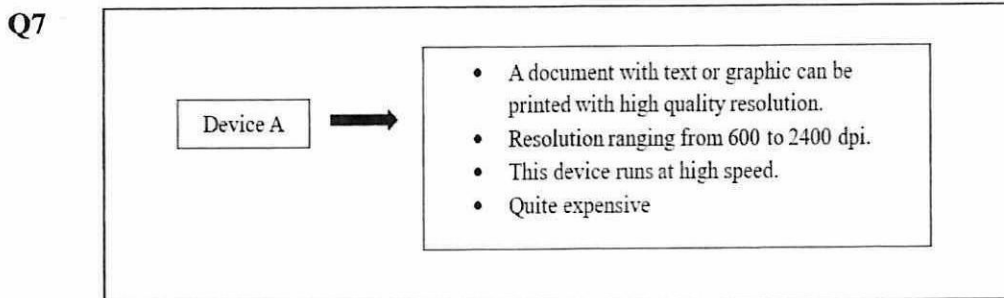
THIS QUESTION PAPER CONSISTS OF **EIGHT (8)** PAGES

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SECTION A

Q1   How does Near Field Communication (NFC) technology affect learning in the digital age?

    A   Helping students gain access to easier and faster learning material resources

    B   Reduce the need to interact directly between lecturers and students

    C   Increasing students' dependence on technology and reducing interpersonal skills

    D   Provide the ability to develop more interactive and dynamic educational applications

Q2   Which of the following best describes digital literacy skills?

    A   The ability to use social media platforms for personal communication

    B   The ability to use computers and smartphones for browsing the internet

    C   The ability to access, analyze, evaluate, and integrate digital information from various sources effectively and efficiently

    D   The ability to troubleshoot common software and hardware issues

Q3   Which of the following is not a feature of Microsoft Excel's data analysis tool?

    A   Regression analysis

    B   What-if analysis

    C   Goal seeking

    D   Data filtering

Q4   What is the main difference between Adobe Illustrator and Adobe Photoshop?

    A   Illustrator is a vector-based graphics editor, while Photoshop is primarily used for image editing and manipulation

    B   Photoshop includes tools for creating digital paintings and illustrations, while Illustrator does not.

    C   Illustrator supports layers and masks for advanced editing capabilities, while Photoshop does not

    D   Graphic design uses illustrator to create bitmap image and photoshop for vector image.

Q5   Which of the following is an advantage of using simulation in medical education?

    A   It allows students to practice and develop skills in a controlled and safe environment

    B   It can replace the need for clinical training with real patients

    C   It is more cost-effective than traditional training methods

    D   It reduces the need for experienced instructors to oversee training sessions

Q6   Which of the following is a benefit of using drill and practice software in language learning?

    A   It encourages students to develop higher-order thinking skills
    B   It provides immediate feedback to students on their progress
    C   It allows students to practice language skills in a social context
    D   It emphasizes the importance of creative expression in language learning

Q7

Device A →
- A document with text or graphic can be printed with high quality resolution.
- Resolution ranging from 600 to 2400 dpi.
- This device runs at high speed.
- Quite expensive

Figure Q7

Based on **Figure Q7**, what is Device A?

    A   Laser Printer
    B   Thermal Printer
    C   Plotter Printer
    D   Ink- jet Printer

Q8   The following functions can be performed by most operating system, except:

    A   Scheduling jobs
    B   Managing memory
    C   Administer security
    D   Internet security

Q9   Radio Frequency Identification (RFID) can be defined as

    A   how network uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person
    B   how network uses close-range radio signals to communicate between two devices or objects equipped with NFC technology
    C   how two wireless devices communicate over the air with each other
    D   how high-speed cellular transmissions use broadcast radio to transmit data for mobile communications

Q10 Ahmad wants to set up a computer setting in a small lab. He wants to limit his budget as low as possible. He also wants the main computer to act as server and exchange information among the clients. Which is the best topology suiting his plan?

A   Star topology
B   Bus topology
C   Tree topology
D   Ring topology

Q11 Which of the following values represents the sum of one terabyte?

A   1024 bytes
B   1024 kilobytes
C   1024 gigabytes
D   1024 megabytes

Q12 In the web address. http://www.microsoft.com , http is the representative for

A   URL
B   Domain Name
C   Protocol
D   Extension

Q13 What is intranet?

A   Internal internet is used to transfer information internally
B   Internal internet is used to transfer information to the outside company
C   Internal network designed to serve the internal formational needs of a single organization
D   Internal network designed to transfer information between two organizations

Q14 ISP is stand for

A   Internet security Protocol
B   *Intelligent security Package*
C   Internet service provider
D   Intelligent Service Provider

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Q15 What is a Zero Insertion Force (ZIF) socket?

A   Referred procedures in random and sequential access

B   Allows you to install and remove chips with no force

C   The platters rotate as a unit on a spindle, making thousands rotation per minute

D   Improve performance by expanding external storage, improving access speed and providing reliable storage

Q16

- It is an act of stealing computer equipment.
- Companies, schools, and other organizations that have many computers are at risk of hardware theft

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Figure Q16

The **Figure Q16** best describe about

A   Software Theft

B   Hardware Theft

C   Software Vandalisme

D   Hardware Vandalism

Q17 There are several functions of input devices. Choose the correct match function of input devices from the following list:

	Input devices	Function
I	Virtual laser keyboard	Project image of QWERTY keyboard on surface
II	Joystick	Move a cursor position on a monitor screen
III	Stylus	Drawing or writing on tablets
IV	Monitor	Operate PC by touching the display screen

A   I and II

B   I, II and III

C   I, II and IV

D   I, II, III and IV

Q18 Which statement exactly described about control unit?

    I   carries out instructions that direct the computer system
    II   communicates with the arithmetic/logic unit and the memory
    III   an external device that can be easily transported from one location to another
    IV   the processor component that directs and coordinates most operations in a computer
    A   I, II and III
    B   I, II and IV
    C   II, III and IV
    D   I, II, III and IV

Q19 Which of the following is an Operating System for a Smart Phone (Mobile)?

    I   Bada
    II   Palm OS
    III   Symbian OS
    IV   Blackberry OS
    A   I, II and III
    B   I, II and IV
    C   II, III and IV
    D   I, II, III and IV

Q20 Which of the following are the consequences of a DoS (Denial-of-Service) attack?

    I   Slow network performance
    II   Unavailability of a particular web site
    III   Inability to access a particular web site
    IV   Disruption of configuration details, such as routing information
    A   I, II and III
    B   I, II and IV
    C   II, III and IV
    D   I, II, III and IV

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SECTION B

Q21 (a) Explain the use of Information Computer Technology (ICT) in the field of manufacturing

(4 marks)

(b) Describe two (2) of cyber law in Multimedia Super corridor (MSC) approved by Parliament

(4 marks)

(c) Touch Screen allows users to enter data and control digital devices using pens. Pens are very popular for use on devices such as tablets and smartphones. State the difference between stylus, light pen, and both

(6 marks)

(d) Explain what access time measures are. Describe two (2) basic access methods Computer receives an instruction.

(6 Marks)

Q22 (a) Describe the function of memory in a computer

(4 marks)

(b) State two (2) differences between an operating system and a utility program.

(4 marks)

(c) Explain the two (2) differences between system software and application software and give examples for each type

(6 marks)

(d) Cloud computing has been used in the years back duration. Explain two (2) usage of cloud computing in human daily life by giving appropriate examples

(6 marks)

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Q23 (a) Compare and contrast the suitability of Wi-Fi and Ethernet as communication protocols for schools.

(4 marks)

(b) Explain how TCP/IP works.

(4 marks)

(c) Discuss how can IoT benefit students, teachers, and administrators in the education sector.

(6 marks)

(d) Explain whether Fog Computing is better than Cloud Computing and give a suitable example.

(6 marks)

Q24 (a) Multiple computers are connected through a group of topologies. State two (2) advantages and two (2) disadvantages of tree topology

(4 marks)

(b) Transmission is the act of transferring data from one spot to another. In brief, explain how the following transmission medium is functioning
(i) Infrared Data Association (IrDA)
(ii) Radio-frequency Identification (RFID)

(6 marks)

(c) Explain two (2) approaches to green computing

(4 marks)

(d) What is information privacy? Explain two (2) ways to use technology to obtain protection from security breaches and attack

(6 marks)

-END OF QUESTIONS-