COMPUTER 9
MID YEAR REVISION SHEET
A.Y. 2020-2021

Name: _____

A. Choose the correct answer.

1. It is used in computers as a temporary memory area in which data is stored while being processed or transferred
   a. Interrupt b. Buffer c. Processor

2. Which of the following is not an example of an operating system?
   a. LINUX b. DOS c. HCI

3. It is a signal sent from a device or from software to the processor.
   a. Interrupt b. Buffer c. Processor

4. It carries signals relating to address between the processor and the memory.
   a. Address bus b. Data bus c. Control bus

5. It sends data between the processor, the memory unit and the input and the output.
   a. Address bus b. Data bus c. Control bus

6. Which bus is regarded as being both unidirectional and bi-directional due to the internal connections within the computer architecture?
   a. Address bus b. Data bus c. Control bus

7. It contains the Arithmetic and Logic Unit which allows arithmetic and logic operations to be carried out.
   a. Control Unit b. Processor c. Memory Unit

8. It controls the operation of the memory, processor and input/output devices.
   a. Control Unit b. Processor c. Memory Unit

9. It contains the address of the memory location of the next instruction which has to be fetched.
   a. ALU b. CIR c. PC

10. They essentially move data around the computer and also send out control signals to make sure everything is properly synchronized.
   a. Registers b. Addresses c. Buses

11. These types of scanner are the most common form and are generally used to input hard-copy(paper) documents. The image is converted into an electronic form which can be stored in a computer.
   a. 2D Scanners b. 3D Scanners c. Barcodes

12. It consists of a number of integrated circuits on a silicon structure. And it is made up of thousands of light-sensitive elements (pixels).
   a. Charge Couple Device
   b. Computerized Tomography
   c. Magnetic Resonance Imaging

13. It uses radio wave frequencies to split up a solid object into thin slices.
   a. CCD b. MRI c. CT

14. Which is a benefit of a supermarket manager using a barcode?
   a. Faster checkout / shorter queues at checkout
   b. Better track of 'sell by dates' so food should be fresher
   c. Easier and faster method of changing item prices

15. It uses inkjet technology where print head moves left to right and up and down to produce layers of the solid object
   a. Direct 3D printing b. Additive c. Binder 3D printing

16. Object in the printer is built up layer by layer
   a. Direct 3D printing b. Additive c. Binder 3D printing

17. It is a series of dark and light parallel lines of varying thickness. The numbers 0 to 9 are each represented by a unique series of lines.
    a. 2D Scanners b. 3D Scanners c. Barcodes

18. It is a type of barcode that is made up of a matrix of filled-in dark squares on a light background.
    a. POS b. QR codes c. SPECT

19. It is a type of touchscreen that is made up of many layers of glass that act like a capacitor, creating electric fields between the glass plates.
    a. Capacitive b. Infra-red c. Resistive

20. Which of the following is a benefit of infra-red touchscreens?
    a. This is a medium cost technology
    b. The optical system allows the use of bare fingers, gloved fingers or a stylus for input
    c. Screen visibility is good even in strong sunlight

21. It is a type of touchscreen that makes use of an upper layer polyester and a bottom layer of glass.
    a. Capacitive b. Infra-red c. Resistive

22. These are devices which reads or measure physical properties such as temperature, pressure, acidity and so on.
    a. Touchscreens b. Sensors c. Pointing devices

23. These printers are best for one-off photos or where only a few pages of good quality, colour printing are needed.
    a. Inkjet Printers b. Laser Printers c. 3D Printers

24. These printers produce high quality printouts and are very fast when making multiple copies of a document.
    a. Inkjet Printers b. Laser Printers c. 3D Printers

25. They are used to project computer output onto large screens or even onto interactive whiteboards.
    a. Scanners b. Barcodes c. Projectors

B. Write ***T*** if the statement is correct and ***F*** if the statement is incorrect.

1. OLEDs is very flexible, it can bend in an arc or even fold it up into small package. _____
2. LEDs produce brighter light than OLEDs that improves colour definition. _____
3. The pressure sensor detects noise such as breaking glass from the window of footsteps. _____
4. Inkjet printers runs out of ink quickly and it is not suitable for large print out. _____
5. One advantages of using QR codes is that there is no need to enter manually web addresses /URLs; scanning the QR codes does this automatically. _____

C. Identify the most suitable input device for each of the following applications.

1. Converting a hard copy document into an electronic form to be stored in a computer _____
2. Entering text and data into a word processor or spreadsheet _____
3. Selecting an option or icon from an onscreen menu_____
4. System that allows a user to write and draw on a screen which then automatically saves the text and images in a memory _____
5. Input a user's voice into a computer as part of a voice recognition system _____

A. Mouse / Touchscreen
B. 2D Scanner
C. Microphone
D. Keyboard
E. Interactive whiteboard

D. Identify the suitable sensor for each of the following application.

A. Temperature sensor

B. Light sensor

C. Magnetic field sensor

D. Infrared sensor

1. Automatically turn on/off a vehicle's windscreen wipers _____
2. Central heating system _____
3. Anti-lock braking system on cars _____
4. Switching vehicle headlights on/off automatically _____
5. Burglar alarm/intruder detection system _____

E. Tick if the statement is about OLEDs are correct, if not put a cross.

1. Because of plastic organic layers, OLEDs are much thicker and heavier than conventional LCD/ LED formats. _____
2. OLEDs give brighter light than LEDs leading to more vivid colours. _____
3. OLEDs produce a much larger field of view than LCD/LED formats _____
4. OLEDs require some form of back-lighting so that the screen can be lit up _____
5. OLEDs consume more power than LCD/LED formats and thus produce more heat. _____

F. Answer the following:

1. A music CD is produced where each piece of music is sampled 44 100 times a second. Rach sample is 32 – bits and the music is stored in stereo (two separate tracks) format.
   Calculate:
   a. How many bytes per second are sampled?

   b. How many KB/ second are sampled?

2. Calculate how much memory is needed to store a 4-minute music track using your answer in 1b.

3. Calculate how many 4-minute music tracks could be stored on a CD with an 800 MB storage capacity.

ANSWER KEY

A.

1. B
2. C
3. A
4. A
5. B
6. C
7. B
8. A
9. C
10. C
11. A
12. A
13. B
14. C
15. A
16. B
17. C
18. B
19. A
20. B
21. C
22. B
23. A
24. B
25. C

B.

1. T
2. F
3. F
4. T
5. T

C.

1. B
2. D
3. A
4. E
5. C

D.

1. D
2. A
3. C
4. B
5. D

E.

1. X
2. ✓
3. ✓
4. X
5. X

F.

1.

a. 44 100 x 2 x 32 = 2 822 400 bits/ sec
= 352 800 bytes per second

b. 352 800 ÷ 1024 = 344 KB/ sec

2. 344 x 60 x 4 = 82 560 KB
= 52 560 ÷ 1024 = 80 MB

3. 800 ÷ 80 = 10 music tracks