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Second Term Test – September 2024
Grade 12

General Information Technology

GIT E I,II

Two hours

- ❖ Answer **all four** questions.
- ❖ In each of the questions 1 to 40, pick one of the alternative from (1), (2), (3), (4) which is correct or most appropriate and mark your response on the answer sheet with a cross (x).

1. Which can be obtained by arranging and processing data?

- (1) Incomplete information (2) A bulk of data
(3) Meaningful information (4) Special information

2. Which of the following answers is/are more accurate in evaluating the quality of information?

- A. Accuracy B. relevancy C. Uncertainty D. timeliness

- (1) Only A and C (2) Only A and B
(3) Only A, B and C (4) Only A, B and D

Consider the following images



3. What is the represented by above images respectively?

- (1) QR code and barcode (2) Barcode and web code
(3) Barcode and QR code (4) QR code and Multiple code

4. Which of the following statements is/are a function/functions regarding information and communication technology?

- A- Vote to your favorite singing star through SMS
B- Aligning wheels of a vehicle by using the computer
C - Repairing a printer

- (1) A only (2) B only (3) A and B only (4) A, B and C only

5. Which of the following devices is an output device?

- (1) Light pen (2) plotter
(3) MRI (4) Barcode reader



6. Which of the following statements is true when above ports are named?

- (1) Video port, Parallel port, Serial port.
- (2) Serial port, Universal serial bus port, Parallel port.
- (3) Parallel port, Serial port, and Universal serial bus port.
- (4) Serial port, Video port, Parallel port.

7. Which of the following devices can be used in both input and output?

- i) Touch screen. ii) Mouse. iii) Computer screen. iv) All of the above

8. The decimal equivalent of binary 1111 is:

- i) 15 ii) 51 iii) 25 iv) 52

9. Which of the following is not equal to 16?

- i) 10000 ii) 2^4 iii) 10000_2 iv) $2^3 \times 2$

10. Which of the following mentioned statements are correct regarding data stored in cache memory?

- (i) Rarely used data permanently.
- (ii) Rarely used data temporally.
- (iii) Frequently used data permanently.
- (iv) Frequently used data temporally.

11. What are the correct results that occurred in evolution of central processing unit?

- i) Increase the both processing power and the electricity consumption
- ii) Decrease the both processing power and electricity consumption
- iii) Decrease the processing power and increase the electricity consumption
- iv) Increase the processing power and decrease the electricity consumption

12. Select the volatile memories from the following types of memories.

- A. Read Only Memory B. Secondary Storage
- C. Cache Memory D. Flash Memory
- E. Random Access Memory

- i) A and B only. ii) A and C only. iii) C and D only. iv) C and E only.

13. Which of the following components is located outside the central processing unit?

- i) Arithmetic and Logic Unit (ALU). ii) Random Access Memory (RAM).
- iii) Control Unit (CU). iv) Registers

14. Which of the following has the highest access speed?

- i) Read Only Memory (ROM) ii) Register Memory
- iii) Flash Memory iv) Cache Memory

15. 2 Kilo bytes consist of:

- i) 2^9 Bytes. ii) 2^{21} Bytes. iii) 2^{11} Bytes. iv) 2×10^{20} Bytes

16. Kevin wants to divide the hard disk of his computer in to several parts and store data. What can he do to this task?
- i) Partitioning and formatting ii) Defragmentation
iii) Partition iv) Formatting
17. Which of the followings can be identified in "myfile.exe":
- i) File name ii) File extension
 iii) File type and the file extension iv) File extension and the file name
18. Character "A" is represented by binary 1000001. The correct ASCII value which are represented by the characters "CAD" are respectively:
- (i) 1000011 1000001 1000101 (ii) 1000111 1000010 1000001
 (iii) 1000100 1000101 1000111 (iv) 1000011 1000011 1000001
19. The decimal equivalent of 10001011_2 is :
- i) 149 ii) 119 iii) 99 iv) 139
20. Which of the following is the largest BCD value?
- (i) 10000000_{BCD} (ii) 10000001_{BCD} (iii) 01110111_{BCD} (iv) 01101001_{BCD}
21. There are three subjects for a selection test ; Maths, IQ and English . For the selection, A pass in Maths is compulsory and at least one subject from IQ and English should be passed. Which of following statement is represented the selecting of candidate?
- (i) (Maths OR English) AND IQ (ii) (Maths OR English OR IQ)
 (iii) Maths (English AND IQ) (iv) Maths (English OR IQ)
22. The last year weather report is not suit able to predict tomorrow's weather condition. Because it is,
- (i) Not Accurate ii) Not Complete
(iii) Not timeliness iv) Not significant
23. Which of the following is **NOT** an utility software
- (i) Web browser (ii) Anti-Virus Soft ware
 (iii) Backup Software (iv) Compiler
24. Which of the following is **NOT** a valid hexadecimal number
- i) 0_{16} ii) 16_{16} iii) A_{16} iv) G_{16}
25. Which of the following digits is not included in octal number system
- i) 8 ii) 0 iii) 1 iv) 7

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- (ii) (Maths OR English OR IQ)
- (iii) Maths (English AND IQ)
- (iv) Maths (English OR IQ)

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- ii) 16₁₆
- iii) A₁₆
- iv) G0₁₆

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- ii) 0
- iii) 1
- iv) 7

26. $34 + 12$ is equal to

i) 46_8

ii) 64

iii) 101110_2

iv) 101110

27. The image indicated a table with inputs A and B and the output of a logic gate, the logic gate is:

i) OR

ii) XOR

iii) NOR

iv) NAND

A	B	Output
0	0	1
0	1	0
1	0	0
1	1	0

28. Some characteristics of the computer were changed during the evolution process. Some of them are:

A- Efficiency

B- Electricity consumption

C- Heat generating

D- The physical size

The characteristics which decrease in the evolution process are:

i) A, B and D

ii) B, C and D

iii) A, B and C

iv) A, C and D

29. Select the correct statement regarding the computer memory.

A. Read only memory (ROM) is a part of secondary memory

B. Random Access Memory (RAM) holds data which have to be processed.

C. Memory registered are physically placed on the motherboard.

D. Digital versatile disks (DVDs) and compact discs (CD) are classified as magnetic medium.

(i) A, B and C only

(ii) B, C and D only

(iii) A only.

(iv) B only.

30. Which of the following is not a language translator?

(i) Assembler

(ii) Web browser

(iii) interpreter

(iv) compiler

31. Which of the following is an example for an operating system with command line interface

(i) Windows server

(ii) MAC OS

(iii) Air traffic controlling system

(iv) DOS

32. Which of the following function keys is used get help in Word Processing package

(i) F3

(ii) F1

(iii) F5

(iv) F2

33. When you are using word processing package, if you press ctrl + S.

- (i) The document is printed
- (ii) The document is saved
- (iii) The document is closed
- (iv) The cursor is moved to the beginning of the document

34. In the word processing package, If the key combination Ctrl + O is pressed,

- i). Appear to get a dialog box to save a file.
- ii). Appear to get a dialog box to print a file.
- iii). Open a new document.
- iv). Appear to get a dialog box to open a file in a default or any other folder.

35. A Logic gate is,

- A. the set of switches that are needed for Boolean algebra
- B. The basic unit of a logic circuit.
- C. able to have more than one output

Which of the above is/are correct?

- i) (A) and (B)
- ii) (B) and (C)
- iii) (A) and (C)
- (iv) All of the above

36. The students were informed to replace a word by another word in a document which prepared by a word processing software. The most suitable method to do this is:

- (i). Copy and replace a word
- (ii). Find and replace
- (iii). Find and Insert
- (iv). Copy and Paste

37. Which of the following is/ are function/s of a number system

- A. To represent a quality of any thing
- B. To do calculations
- C. To compare values.

- i) A and B only
- ii) B and C only
- iii) A and C only
- iv) A, B and C only

38. The base value of the number system which is included the {0,1,2,3,4} set of numbers

- i) 2
- ii) 4
- iii) 8
- iv) 5

39. Number of bits which are used to represent the number 123_{16}

- i) 10
- ii) 9
- iii) 8
- iv) 31

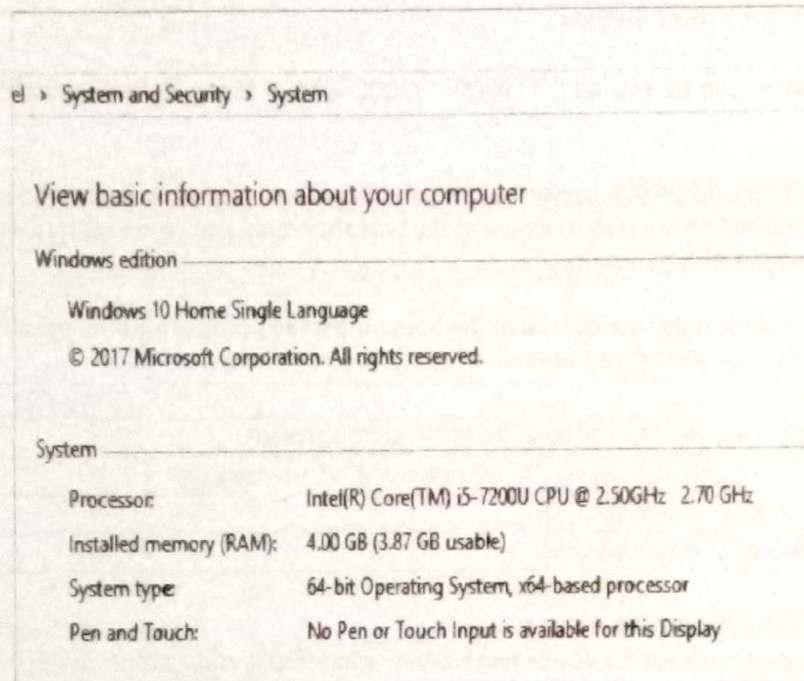
40. Consider the following statements regarding computer hardware

- (i). Laser printer print copies with low quality
- (ii). Need of less space is an advantage of CRT monitors
- (iii). CCTV and Web camera are examples for graphic and multimedia input.
- (iv). The USB port can be used to connect only the pen drive

General Information Technology II

- Answer all four questions.

1. (i). Yasas wants to check the hardware configuration of his computer. Following figure shows the screen shot of hardware specification of his computer.



- (i). Write the steps of getting above specifications on the computer screen.
- (ii). What is clock speed of his computer?
- (iii). What is the main memory capacity mentioned in this computer.
- (iv). What is the operating system installed in this computer?
- (v). The vender said that this computer cannot support for touch screen. By which statement of the specification can we prove it. Write the relevant statement in your answer script.
- (vi). Write two benefits of LED screen than CRT screens.
- (vii). State following statements labeled A to E are correct or incorrect. You need only write the label and mention whether it is correct or incorrect.
- A. The unit use to measure the speed of CPU is hertz.
 - B. The external modem can be connected to the serial port.
 - C. The cache memory is a volatile memory.
 - D. The response time of LCD monitor is longer than the CRT monitor.
 - E. Track ball is an output device.

2. Consider the following Hardware devices

{ Key board, Modem, USB Flash drive, Multimedia projector, Printer, Hard disk, Monitor and Mouse }

(i) Write the suitable hardware devices for each of following task.

- A. To store a file till transferred to another computer.
- B. To connect to a computer.
- C. To present some information to an audience.
- D. To type a report.
- E. To get a print preview.

(ii). Write the word represented by 1100011, 1100001, 1100010 if "a" is represented with (ASCII) 1100001.

(iii). All employees of "ROBOTRONICS" Software company have been issued an electronic identification card. Each employee enters his card to a dive at the entrance door and types his password and employee number to mark attendance.

The attendance record is only marked when the both employee number and the password is accurate. Relevant occasions are as follows

Process	Product
Employee number "X" and Pass word "Y" are accurate.	1
Either the employee number "X" or Password "Y" is wrong.	0
Attendance "Z" is marked.	1
Attendance "Z" is not marked.	0

(a). Draw the truth table for the above scenario.

(b). Draw the logic circuit for the above truth table. (mark input and output clearly)

(iv) Following table shows the RGB decimal values of dark violet.

R	G	B
135	31	120

Write the hexadecimal values of Dark violet.

(v). Name two advantages of the concept cloud computing.

3. (i). Select the examples from the list given below and match with the item labeled A to D .

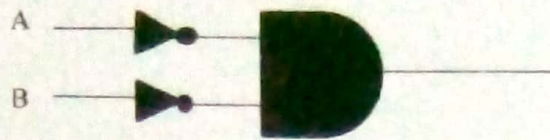
List - { visual C, Word perfect, Disk defragmenter, Unix }

- A) Operating System:
- B) Computer Language:
- C) Application software:
- D) Utility Software :

(ii). Consider the following devices labeled as A - E .

- A- Touch Screen
- B- Compact Disk
- C- Scanner
- D- Speakers
- E- Optical Mark Reader

Consider the given logic circuit below.



A	B	C
0	0	P
0	1	Q
1	0	R
1	1	S

Write suitable values for P, Q, R, and S in above truth table.

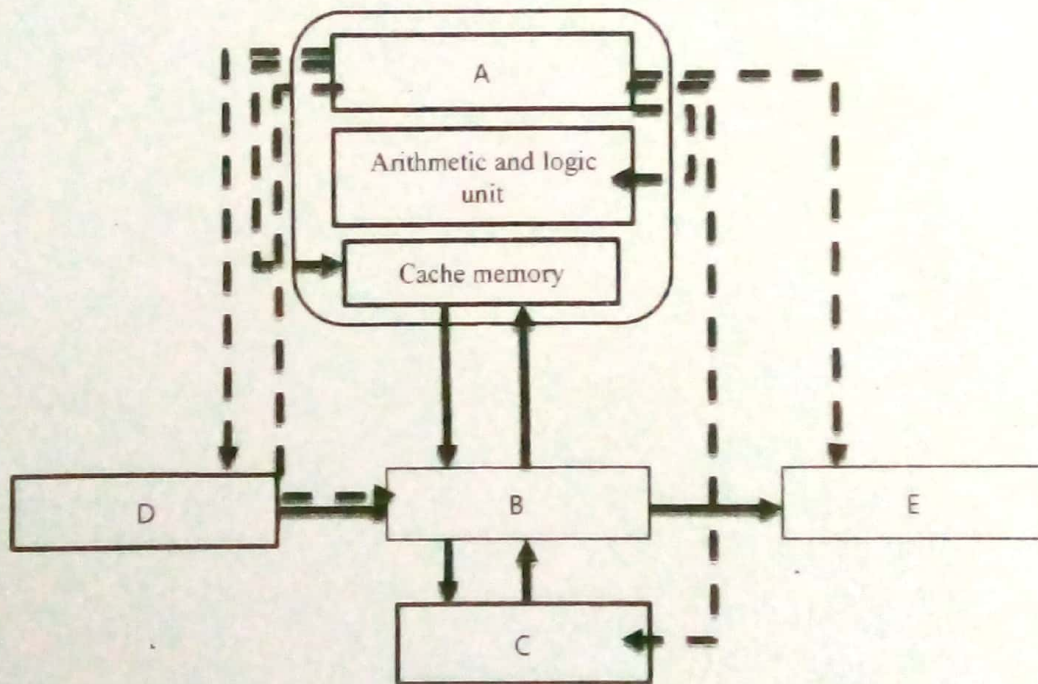
(iv) Convert the binary 1101111 in to decimal.

(v)

State whether the above devices are belonging to the category of input, output, storage or both input and output.

(v). People often use PDF format when transferring documents over the internet. Give one main reason for it.

4. (i).



- Name the components which labeled as A to E in the above diagram
- Explain the function of the solid and dash lines in the above diagram.
- Name the two main types of the component named as B
- Name two main types of the component C and give an example for each of them.

(ii) Frequent power failure and fluctuations effect the electronic equipment in a certain office. What equipment can we use for as a precautionary?
