

# Zonal Education Office- Vavuniya south

First term exam-2020

Information & Communication Technology

Grade 10

Time:-2 hrs

## Part – I

1. Which of the following is not a data
  - 1) Price of a thing
  - 2) A student's Maths marks
  - 3) Kumar got 1<sup>st</sup> rank in his class
  - 4) First four numbers of NIC card
  
2. Which of the following is not a characteristic of quality information
  - 1) Accuracy
  - 2) Timeliness
  - 3) Completeness
  - 4) increase the cost
  
3. Which machine helps to take three dimensional (3D) images of different parts of the body
  - 1) MRI ( Magnetic Resonance Imaging machine )
  - 2) ECG( Electrocardiogram Machine )
  - 3) CAT (Computerized Axial Tomography Machine )
  - 4) Cardiac Screening Machine )
  
4. Who invented the punch card?
  - 1) Charles Babbage
  - 2) Joseph Marie Jacquard
  - 3) Ada Lovelace
  - 4) Herman Hollerith
  
5. Which generation used Micro Chips
  - 1) 1<sup>st</sup> generation
  - 2) 2<sup>nd</sup> generation
  - 3) 3<sup>rd</sup> generation
  - 4) 4<sup>th</sup> generation
  
6. OCR standard for
  - 1) Optical Character Reader
  - 2) Online Computer Retrieval
  - 3) Optical card reader
  - 4) Office Cash Reader
  
7. Which of the following is considered as an input and output device
  - 1) Touch screen
  - 2) Joystick
  - 3) webcam
  - 4) printer

8. Which type of computer is ECG machine
- |                    |                     |
|--------------------|---------------------|
| 1) Analog computer | 3) digital computer |
| 2) Hybrid computer | 4) Super computer   |
9. Which device helps to check the accuracy of a cheque
- |         |        |        |                   |
|---------|--------|--------|-------------------|
| 1) MICR | 2) OCR | 3) OMR | 4) Barcode reader |
|---------|--------|--------|-------------------|
10. Volatile memory is
- |                 |        |
|-----------------|--------|
| 1) Flash memory | 3) RAM |
| 2) Memory card  | 4) ROM |
11. Which unit is used to measure clock speed of a computer
- |         |         |       |        |
|---------|---------|-------|--------|
| 1) Mbps | 2) Gbps | 3)GHz | 4) bps |
|---------|---------|-------|--------|
12. Which one of the following is not a characteristic of a computer
- |          |             |               |            |
|----------|-------------|---------------|------------|
| 1) Speed | 2) accuracy | 3) efficiency | 4) feeling |
|----------|-------------|---------------|------------|
13. Which one is not suitable for BCD
- |         |         |         |         |
|---------|---------|---------|---------|
| 1) 1001 | 2) 0111 | 3) 1010 | 4) 0101 |
|---------|---------|---------|---------|
14. The storage capacity of USB flash drive is 8GB. What is the equivalent of this
- |                |                |                |                  |
|----------------|----------------|----------------|------------------|
| 1) $2^{20}$ KB | 2) $2^{13}$ MB | 3) $2^{13}$ KB | 4) $2^{23}$ byte |
|----------------|----------------|----------------|------------------|
15. Which one is equivalent of  $50_{10}$ .
- |                |           |              |           |
|----------------|-----------|--------------|-----------|
| 1) $1100101_2$ | 2) $62_8$ | 3) $33_{16}$ | 4) $64_8$ |
|----------------|-----------|--------------|-----------|
16. Which one is not equivalent of  $143_8$
- |              |                |              |                |
|--------------|----------------|--------------|----------------|
| 1) $99_{10}$ | 2) $1100011_2$ | 3) $63_{16}$ | 4) $1100110_2$ |
|--------------|----------------|--------------|----------------|
17. What coding system is represented by 16 bits
- |       |          |            |           |
|-------|----------|------------|-----------|
| 1)BCD | 2) ASCII | 3) Unicode | 4) EBCDIC |
|-------|----------|------------|-----------|
18. Sort the numbers in ascending order.-  $110101_2 > 25_8 > 2A_{16}$
- |                                |                                |
|--------------------------------|--------------------------------|
| 1) $110101_2 > 25_8 > 2A_{16}$ | 2) $25_8 > 2A_{16} > 110101_2$ |
| 3) $2A_{16} > 110101_2 > 25_8$ | 4) $110101_2 > 2A_{16} > 25_8$ |

19. Which cable is used in CCTV

- 1) Coaxial cable
- 2) Microwave
- 3) Fiber optics
- 4) Twisted pair

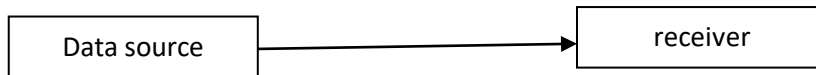
20.  $107_x$  what is the equivalent value of X

- 1)  $2 > 8 > 10$
- 2)  $8 > 16 > 10$
- 3)  $10 > 16 > 2$
- 4)  $2 > 8 > 16$

21. Which of the following has fastest data transmission media

- 1) Coaxial cable
- 2) Microwave
- 3) Fiber optics
- 4) Twisted pair

22. Which data transmission mode is explained by this image?



- 1) Full duplex
- 2) Simple duplex
- 3) Half duplex
- 4) Twisted pair

23. Which of the following has large capacity

- 1) Cache memory
- 2) RAM
- 3) Hard disk
- 4) Magnetic tape

24. Find the most significant digit and least significant digit of  $45.210$  respectively

- 1) 2,1
- 2) 4,1
- 3) 4,0
- 4) 5,0

25. Who invented the Adding machine

- 1) Blaise Pascal
- 2) Howard Aiken
- 3) Charles Babbage
- 4) Ada Lovelace

26. Television is the example of .....communication.

- 1) Full duplex
- 2) Simple duplex
- 3) Half duplex
- 4) Full & half duplex

27. Find the Hexadecimal number , equivalent of  $77_8$

- 1)  $3E_{16}$
- 2)  $3F_{16}$
- 3)  $2E_{16}$
- 4)  $2B_{16}$

28. Which type of printer is used in ATM machine.

- 1) Line printer
- 2) Thermal printer
- 3) Dot matrix printer
- 4) Bubble printer

29. Find the technology used in ENIAC computer

- |                 |                                    |
|-----------------|------------------------------------|
| 1) Micro chips  | 3) Integrated Circuit              |
| 2) Vacuum Tubes | 4) Medium Scale Integrated Circuit |

30. If "P" character is represented as 1010000 in ASCII system, What is the ASCII code for letter "F"?

- |            |            |            |            |
|------------|------------|------------|------------|
| 1) 1011000 | 2) 1001110 | 3) 1010010 | 4) 1010001 |
|------------|------------|------------|------------|

( 30x1=30)

## Part II

Answer five questions including 1<sup>st</sup> question.

(1)

(1) Give one example of the following E-Government services.

- |        |         |          |
|--------|---------|----------|
| I. G2C | II. G2E | III. G2B |
|--------|---------|----------|

(2) Convert the number  $AF7_{16}$  in to binary number

(3) Convert the number  $110010101_2$  in to octal number.

(4) Give three computer network devices.

(5) Write three data transmission modes with its examples

(6) What are the main parts of CPU

(7) Give three optical media devices

(8) If 'B' character is represented as  $1000010_2$  in ASCII system, what is the ASCII code for letter 'ICT'

(9) Give 2 advantages and a disadvantage of online shopping

(10) Give two hard copy output devices (10x3=30)

(2) 1. What are the types of networks?

2. Give one advantage and one disadvantage of mesh topology

3. Write one different between hub and switch

4. Give 2 disadvantages of computer network.

5. Write the function of router

(5x2=10)

3) Fill in the following table from A to H. Show your calculations briefly.

1.

<b>Base</b>	<b>2</b>	<b>A</b>	<b>10</b>	<b>B</b>
<b>Num - 1</b>	1100101	<b>C</b>	101	<b>D</b>
<b>Num - 2</b>	<b>E</b>	1345	<b>F</b>	2E5
<b>Num - 3</b>	<b>G</b>	771	505	<b>H</b>

2. Kumar is sending the following message using ASCII coding system to his friend Ravi.

Find the message which is sent by Kumar, If 'A' character is represented as 65 in decimal number?

(8+2=10)

4) 1. Give two examples of guided media.

2. Write two devices using infrared waves

3. Give two magnetic storage devices

4. Which port do you use to connect computer network with computer system.

5. Classify the computer according to the size.

(5x2=10)

5) 1. Convert the following numbers into binary numbers

a) 10710

b) 1468

2. Convert the following numbers in to decimal numbers

a) 101011

b) 1716

3. Convert the following numbers in to octal numbers

a) 101010112

b) A316

4. . Convert the following numbers in to Hexadecimal numbers

a) 45310

b) 5418

5. Write two benefits of Unicode system.

(5x2=10)

6) 1. Write 4 educational websites in Sri Lanka.

2. Give two benefits of distance learning

3. Give 2 situations where ICT is used in transport service.

4. What do you meant by telemedicine

5. Give 3 main hardware technology used in 2<sup>nd</sup> generation computers.

(5x2=10)