

Cantonment Public School & College, Saidpur

Home Test-1

Class-XI (EV)

Subject: Information & Communication Technology (Creative Questions)

Time: 2.35hrs

Full Marks: 50

Answer any five from the following questions.

1. Teachers at Fuad's College takes the classes by using computer, modem and multimedia projectors which Fuad likes very much. One night in his leisure time he was watching an agriculture program on TV. Then he thought, it would be better if the marginal farmers could discuss their problems with agronomist experts directly.

- what is video conferencing? 1
- Computer is a program-based machine-explain it. 2
- How students can be benefited by using aforesaid components? Explain it. 3
- Is it possible to solve Fuad's thinking? Explain your opinion. 4

2. ABC College, Khulna

Available Subjects:

- Bangla
- English
- Mathematics
- Accounting

- What is tag? 1
- HTML language is not case sensitive-explain it. 2
- Write the HTML code using only single tag or text formatting tag for the above stem. 3
- Explain your opinion about the necessary tags for the above stem to write it in Bengali. 4

3. **Stem-1:** On a home page of a website has a name Mathurapur Public School by using the highest heading and there is a list of Teachers Name, Total Students, Employees and Security Guard. Below there is link as **Result at a glance** where if clicked the academic result of previous year will be shown.

Stem-2:

Mark Distribution

Statistics		
MCQ	CQ	Practical
25	50	25
100		

- What is Domain Name? 1
- www.educationboardresult.gov.bd- Explain it. 2
- Write the HTML code for stem-1. 3
- Write the HTML code for stem-2. 4

4. Shimul has $(206.64)_8$ taka. He bought a shirt and a pant at a cost of $(65)_{10}$ and $(55)_{10}$.

- What is alphanumeric code? 1
- Show the differences between positional and non-positional number. 2
- Convert Shimul's total amount in decimal. 3
- Determine the differences of the cost of shirt and pant in the method of addition and explain it necessity. 4

5.



Fig-1

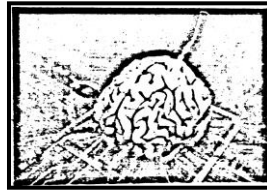


fig-2

- What is plagiarism? 1
- "A person can be identified uniquely by hand geometry"-explain it. 2
- Explain the components in fig-1. 3
- How fig-2 is playing an important role in developing fig-1? Explain your opinion. 4

6.

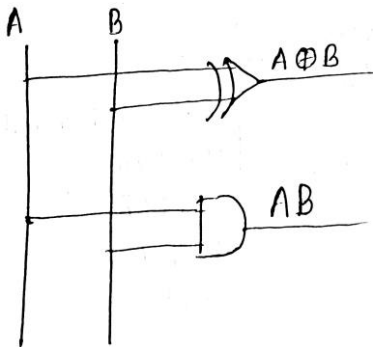


Fig-1

Input			Output	
A	B	Ci	S	Co
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

Fig-2

- What is a decoder? 1
- Prove that $\overline{AB} + \overline{A}\overline{B} = 1$. 2
- Implement fig-1 using NAND gate. 3
- Is it possible to implement fig-2 by fig-1? Explain your opinion using proper diagram. 4

7.

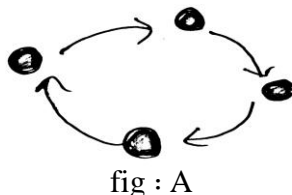


fig : A

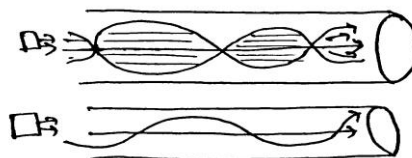


Fig-B

- What is Bluetooth? 1
- Write the differences between voice band and narrow band. 2
- Which topology is shown in fig:A? Explain. 3
- Which cable is depicted in fig-b? Explain its structure and importance. 4

8.

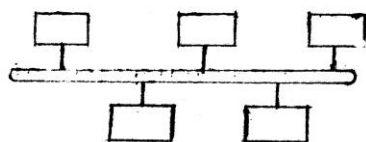


Fig-a

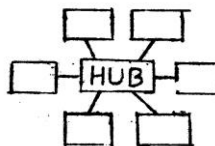


fig-b

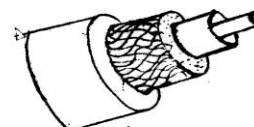


fig-c

- What is synchronization? 1
- "Wireless network within 10 meters"- Explain. 2
- Explain the advantages and disadvantages of the cable shown in fig-c. 3
- Which topology shown in the stem is suitable in the context of educational institution? Explain your opinion. 4

Cantonment Public School & College, Saidpur

Home Test-1

Class- X I (E.V)

Subject: Information & Communication Technology

Time: 25 min.

Full Marks-25

[N.B:- Answer all the questions of objective type. Each question carries one mark.]

1. Which one is the html code for A^{bc} ?
 - a. `^{A^{b^c}}`
 - b. `_{A_{b_c}}`
 - c. `<p>^{A^{bc}}`
 - d. `<p>A^{bc}</sup>`
2. Which of the following tags have no closing tag?
 - i. ``
 - ii. `
`
 - iii. `<hr>`

Which one of the following is correct?

- a. i and ii
- b. i and iii
- c. ii and iii
- d. i, ii and iii

Read the following stem and answer the question nos. 03 and 04:

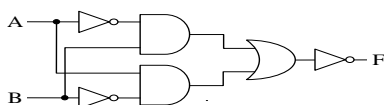
Sami includes pictures with writing in his website. Due to this, his website becomes more attractive and beautiful.

3. Which tag did *Sami* use to include pictures?
 - a. `<caption>`
 - b. ``
 - c. `<head>`
 - d. `<html>`
4. The format of the pictures that *Sami* includes—
 - i. .jpg
 - ii. .png
 - iii. .jpeg

Which one of the following is correct?

- a. i & ii
- b. i & iii
- c. ii & iii
- d. i, ii & iii

Read the following stem and answer the questions no 5 and 6.



5. Which logic Gate is equipment of F in the stem?
 - a. OR
 - b. NAND
 - c. XOR
 - d. XNOR
6. Logic Gate derived from F can be used ----
 - i. To compare the status of two bits.
 - ii. In case of making an half adder
 - iii. In case of making counter

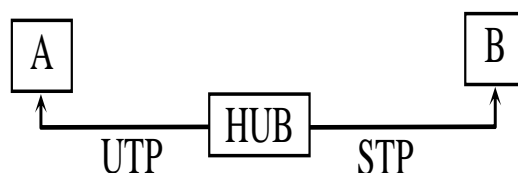
Which one of the following is correct?

- a. i & ii
- b. i & iii
- c. ii & iii
- d. i, ii & iii

7. What is the number of wires in mesh topology for number N computer?
 - a. N
 - b. $N(N-1)$
 - c. $N(N-1)/2$
 - d. $N(N-1)/3$
8. What is the syntax for writing comment in HTML?

- a. `<!.....>`
- b. `<.....>`
- c. `<!.....!>`
- d. `<.....!>`

Look at the picture below and answer the question no. 9 and 10:



9. What type of topology is shown in the picture?
 - a. Star
 - b. Ring
 - c. Bus
 - d. Mesh
10. What should be done to ensure highest speed of data transmission between A and B?
 - i. Switch can be used in the place of HUB
 - ii. Router can be used in the place of HUB
 - iii. Optical fiber cable can be used in the place of STP and UTP

Which one of the following is correct?

- a. i & ii
- b. i & iii
- c. ii & iii
- d. i, ii & iii

11. According to Boolean algebra $A+1=?$

- a. $2A$
- b. 1
- c. 2
- d. A

12. Which is the equivalent hexadecimal value of $(110111101)_2$?

- a. DD.1
- b. DE.1
- c. DE.8
- d. ED.8

13. What is used in creating X-OR?

- (i). OR gate
- (ii). AND gate
- (iii). NOT gate

Which one of the following is correct?

- a. i, ii
- b. ii, iii
- c. i, iii
- d. i, ii, iii

14. How many output lines for 4 inputted decoder?
 a. 2
 b. 8
 c. 16
 d. 32

Read the stem and answer the Question no 15 & 16:
 Mr. Jamal has a factory. Recently he has started a new system to confirm the presence of workers with the help of machine.

15. The new system to which introduce by Mr. Jamal of the stem is-

- a. Robotics
- b. Bioinformatics
- c. Biometrics
- d. Genetic Engineering

16. The machine of the stem -

- i. Do the risky work
- ii. Identify the workers
- iii. Confirm the physical presence

Which one is correct?

- a. i & ii
- b. ii & iii
- c. i & iii
- d. i, ii & iii

17. Normal topics of robotics are ----

- i. Artificial intelligence
- ii. Psychology
- iii. Logical Science

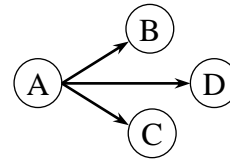
Which one of the following is correct?

- a. i & ii
- b. i & iii
- c. ii & iii
- d. i, ii & iii

18. Behavioral characteristics of Biometrics is-

- a. Key stroke
- b. DNA structure
- c. Retina scan
- d. Face recognition

19. The following figure is from which mode?



- a. Broadcast
- b. Multicast
- c. Anycast
- d. Unicast

20. $\overline{A \oplus B} = ?$

- a. $\overline{AB} + \overline{AB}$
- b. $AB + \overline{AB}$
- c. $AB + \overline{AB}$
- d. $\overline{AB} + \overline{AB}$

21. What we need to use for establishing connection between two web pages?

- a. $\langle i \rangle$
- b. $\langle b \rangle$
- c. $\langle p \rangle$
- d. $\langle a \rangle$

22. Artificial Intelligence is the branch of -----.

- a. Biometrics
- b. Computer Science
- c. Electronics
- d. Robotics

23. Highest speed of voice band-

- a. 300bps
- b. 9600bps
- c. 1Mbps
- d. 1Mbps

24. Which of the following device is use to connect networks of different protocols?

- a. Gateway
- b. Hub
- c. Router
- d. Switch

25. The elements applied in cryosurgery are -----.

- i. Frosted carbon-di-oxide
- ii. Liquid Nitrogen
- iii. Neon

Which one of the following is correct?

- a. i & ii
- b. i & iii
- c. ii & iii
- d. i, ii & iii