

# Model Question of HSC Examination-2016 (All Board)

## Subject: Information & Communication Technology

Sub Code : 275

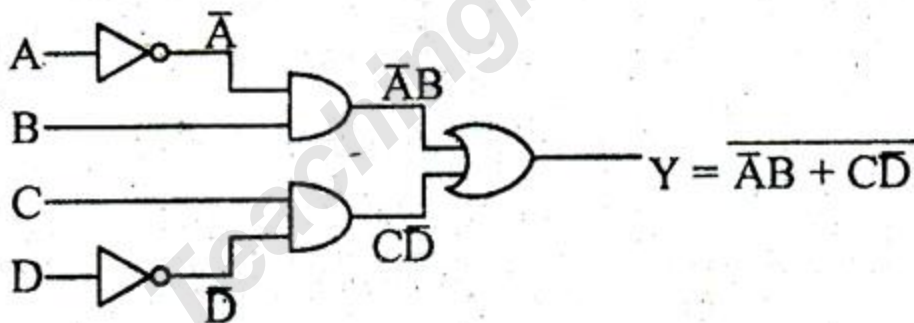
Time : 2 hours 10 minutes

Full Marks : 40

1. ► In the 1<sup>st</sup> years' orientation class, the principal said that all students have to present in the class regularly. No one can give others attendance. For determining this, there is a special device. And the principal also said that your result of the examination you can see by staying any place in the world.

- What is Biometrics? 1
- Is it possible to get information from any corner in the world? Explain. 2
- Explain the process of determining regular attendance of students according to the stem. 3
- "It is possible to create congenial educational environment in college by using ICT"-Explain according to the stem. 4

2. ► Read the following figure very carefully and answer the questions :



- Write down De Morgan's Law. 1
- Explain the basic logic gates with truth table. 2
- Draw the logical circuit from the expression  $F = AB + \bar{A}\bar{B}$  3
- Prove that "NOR gate is a universal gate." 4

3. ► The owner Mr. Babu of apex garments wants to build a website for his institution. For this purpose, he contacts with a leading software company in Bangladesh. The CEO of that software company gives some advice to Mr. Babu.

- What is IP address? 1
- What do you mean by web server? 2
- What are the possible advices for making websites according to the stem? Explain. 3



d. Describe the steps of website designing according to the steam. 4

4. ▶ See the following figure and answer quesitoons.

Roll	Name	Grade
1	Sumon	A
2	Karim	A

- a. What is Search Engine? 1
- b. What do you mean by website structure? 2
- c. Write down HTML code for creating mentioned table in the stem. 3
- d. If we want to add "blood group" column for blood group entry beside Grade column, then what will be the HTML code for updaed table. 4

5. ▶ Mr. Sejan is a chemistry teacher. He teaches the students how to convert centigrade temperature into Fahrenheit temperature. But Mr. Sejan wants to solve the problem by a computer program where he just put the input and output will be shown automatically.

- a. What is computer programming? 1
- b. Briefly explain the advantages of computer programming? 2
- c. Draw the flowchart for solving the problem mentioned in the steam. 3
- d. Write down 'C' program for solving the problem mentioned in the stem. 4

6. ▶ Mr. Jaman wants to make a database for his company. For this purpose, he contacts a renowned software company to solve his problem. The CEO of software company ensures that he will try level best to build the database.

- a. What is Database? 1
- b. What do you mean by relational database? 2
- c. Explain the security measurment of database according to the steam. 3
- d. What significances database can play you think? Describe. 4



Time: 35 Minutes

[Answer all the questions. Each question carries 1 mark. Tick with ball point pen into the correct answer in the answer sheet.]

1. Which chemical is used in cryosurgery?

- (a) liquid O<sub>2</sub>                      (b) liquid N<sub>2</sub>  
 (c) liquid NH<sub>4</sub>                    (d) liquid H<sub>2</sub>

2. The behavioral characteristics of biometrics—

- (a) face recognition  
 (b) retina scan  
 (c) keystroke verification  
 (d) fingerprint

3. Which function is used to add record?

- (a) SUM                              (b) ADD  
 (c) COUNT                          (d) MAN

4. Which is the DBMS software?

- i. MS Access  
 ii. Mysul Server  
 iii. Oracle

Which one is correct?

- (a) i & ii                              (b) ii & iii  
 (c) i & iii                              (d) i, ii & iii

ID	Name	Class	Address	City	Grade
01	Tina	X	Sardah	Rajshahi	A
02	Lina	IX	Mirpur	Dhaka	B
03	Mina	IX	Farmgate	Dhaka	A <sup>+</sup>

5. According to the above table, address is—

- (a) Bit                                  (b) field  
 (c) table                                (d) record

6. Which is needed to represent the student of class IX?

- (a) Query                              (b) select  
 (c) table                                (d) update

7. The meaning of database—

- (a) combination of information  
 (b) search of data  
 (c) update of data  
 (d) process of data

8. What do you mean by BETWEEN?

- (a) data type                          (b) function  
 (c) keyword                          (d) operator

9. Which is the half-duplex mode?

- (a) monitor                            (b) walki-talki  
 (c) telephone                         (d) radio

10. URL is—

- i. address of internet document  
 ii. address of web page  
 iii. address of ftp file

Which one is correct?

- (a) i & ii                                (b) ii & iii  
 (c) i & iii                                (d) i, ii & iii

11. Changing the position from one page to another in internet is called—

- (a) Navigation                        (b) browsing  
 (c) searching                          (d) updating

12. The alphanumeric address of IP is called—

- (a) FTP                                  (b) HTTP  
 (c) DNS                                 (d) HTML

13. Which tag is used to color the background?

- (a) blockcolor                        (b) background  
 (c) backcolor                         (d) bgcolor

14. The binary number of (A1D)<sub>16</sub> is—

- (a) (10100011101)<sub>2</sub>  
 (b) (10110011101)<sub>2</sub>  
 (c) (100000111101)<sub>2</sub>  
 (d) (101000011101)<sub>2</sub>

Look the table and answer the question :

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

15. Which gate is indicated by the above truth table—

- (a) OR                                  (b) AND  
 (c) NOT                                 (d) NAND

16. Which Boolean function is indicated by the above table—

- (a)  $Y = A$                             (b)  $Y = \overline{A \oplus B}$   
 (c)  $Y = AB$                            (d)  $Y = A + B$

17. The refraction is equal in everywhere—

- (a) graded-index fiber  
 (b) coaxial cable  
 (c) step-index fiber  
 (d) twisted pair cable



18. Which process is used to transferring data to Bluetooth?

- (a) micro wave (b) infrared wave  
(c) frequency wave (d) radio wave

19. Primary storage device is needed for—

- i. synchronous  
ii. asynchronous  
iii. isochronous

Which one is correct?

- (a) i & ii (b) ii & iii  
(c) i & iii (d) i, ii & iii

Arif creates a network to communicate with his friends. The name of the network topology is star topology.

20. Which is needed for the star topology?

- (a) point to point network  
(b) central card  
(c) Host computer  
(d) central database

21. Which is used as a host of the above stated stem—

- i. hub  
ii. switch  
iii. scanner

Which one is correct?

- (a) i & ii (b) ii & iii  
(c) i & iii (d) i, ii & iii

22. What is the channel access process of first generation mobile?

- (a) TDMA (b) FDMA  
(c) CDMA (d) GSM

23. In boolean algebra,  $A + AB = ?$

- (a)  $A + B$  (b)  $A$   
(c)  $1 + B$  (d)  $1 + A$

24. 18. RADAR is used in—

- i. ground  
ii. sky  
iii. sea

Which one of the following is correct?

- (a) i & ii (b) ii & iii  
(c) i & iii (d) i, ii & iii

25. Which one is used to create query?

- (a) DML (b) DDL  
(c) DSL (d) SQL

26. Which is the comment line syntax in

html?

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

27. How can you open a link in a new tab/browser window?

- (a) `<a href = "url" new>`  
(b) `<a href = "url" target=" blank">`  
(c) `<a href ="urltarget="new">`  
(d) `<a target=" url" href=" new">`

28. Which is the arithmetic operator?

- (a)  $>=$  (b) or  
(c) + (d) =

29. What is .html or. htm?

- (a) Extension name (b) head name  
(c) title name (d) body name

30. What is the output of type="circle" of unordered list?

- (a) ■ (b) □  
(c) ● (d) ○

31. Which one is the non-positional number system?

- (a) Egyptian (b) binary  
(c) octal (d) decimal

32. According  $Q = \overline{x \oplus y} \oplus z$ , when we

get output  $Y = 1$

- i.  $x = 0, y = 0, z = 0$   
ii.  $x = 0, y = 0, z = 1$   
iii.  $x = 0, y = 1, z = 1$

Which one is correct?

- (a) i & ii (b) ii & iii  
(c) i & iii (d) i, ii & iii

33. Which is called the main computer in network system?

- (a) hub (b) switch  
(c) client (d) server

34. The outdoor coverage area of Wi-Fi—

- (a) 95 meter (b) 100 meter  
(c) 110 meter (d) 120 meter

35. Where is nanotechnology used?

- i. fabric  
ii. chemical sensor  
iii. producing hybrid tree

Which one is correct?

- (a) i & ii (b) ii & iii  
(c) i & iii (d) i, ii & iii

1	(b)	2	(c)	3	(a)	4	(d)	5	(b)	6	(a)	7	(a)	8	(d)	9	(b)	10	(d)	11	(a)	12	(c)	13	(d)	14	(d)	15	(a)	16	(d)	17	(b)	18	(d)	19	(a)	20	(a)	
21	(a)	22	(b)	23	(b)	24	(a)	25	(d)	26	(a)	27	(b)	28	(c)	29	(a)	30	(d)	31	(a)	32	(c)	33	(d)	34	(d)	35	(d)											