



# INFORMATION COMMUNICATION TECHNOLOGY

2008 - SECOND TERM

Grade 11

Time: 3 hours

Select most suitable answer

- The binary equivalent of the decimal number  $95_{10}$  is  
(1) 1100001 (2) 1010001  
(3) 1000001 (4) 1011111
- The binary equivalent of the Hexadecimal number  $3FD_{16}$  is  
(1) 111111101 (2) 1011101101  
(3) 1010101101 (4) 1010101111
- The decimal equivalent of the binary number  $100011_2$  is  
(1) 91 (2) 35  
(3) 88 (4) 86
- The logical expression  $X(X+Y)$  is equivalent to  
(1)  $X^2$  (2)  $X$   
(3) 1 (4)  $2X$
- The logical expression  $X+1$  is equivalent to  
(1) 1 (2)  $X$   
(3)  $X^2$  (4) 0
- Most Significant Bit (MSB) and Least Significant Bit (LSB) of the binary number 11100110 are  
(1) 1 and 1 (2) 0 and 0  
(3) 0 and 1 (4) 1 and 0
- The number of bits used by the **ASCII** coding scheme is  
(1) 6 (2) 7 (3) 8 (4) 9

8. Select the logical operation corresponding to the following truth table

Input 1	Input 2	Output
0	0	0
0	1	0
1	0	0
1	1	1

- (1) AND (2) OR (3) NOT (4) NOR
9. In Microsoft Word, You can save a document by  
(1) File, Save (2) File, Save as (3) Click  (4) All above options

10. What does GUI stand for?  
(1) Graphics Use Internet (2) Graphical User Interface  
(3) Graphical Utilities Interchange (4) Granted Utilities Incoming
11. What is used to temporarily hold data, instructions and result of processing?  
(1) Hard disc (2) RAM (3) ROM (4) All above
12. The binary equivalent of the Octal number  $372_8$  is  
(1) 10111010 (2) 11101010 (3) 11110010 (4) 11111010
13. Which of the following has the least value?  
(1)  $35_{10}$  (2)  $1101_2$  (3)  $27_8$  (4)  $2A_{16}$
14. An information system is needed to be developed for an organization but a fixed amount of money is available to be spent on the project. Which of the following phases decides limitation of the cost?  
(1) Feasibility Study (2) System Development  
(3) System Design (4) Testing
15. Not an output device  
(1) Monitor (2) Printer (3) Plotter (4) Microphone
16. Which data type is appropriate to represent a telephone number (e. g. 0112 665701) in Microsoft Access?  
(1) Text (2) Integer (3) Memo (4) Byte
17. A database is a  
(1) Program for entering data  
(2) Collection of records  
(3) Contain names of students  
(4) Can store pictures only
18. Microsoft Excel is a software package that is used for  
(1) Mathematical operations (2) Database Management  
(3) Word Processing (4) Presentation
19. Not a peripheral device  
(1) Mouse (2) System Unit (3) Keyboard (4) Monitor
20. Which type of chart can you create in a MS Excel Spreadsheets?  
(1) Line (2) Bar (3) Pie (4) Any of the above
21. Which of the following application software are in correct order with respect to .doc, .xls, .mdb and .ppt file extensions?  
(1) MS Word, MS Power point, MS Access, MS Excel  
(2) MS Word, MS Excel, MS Power point, MS Access  
(3) MS Word, MS Excel, MS Access, MS Power point  
(4) MS Word, MS Access, MS Excel, MS Power point

22. In Ms word, Shortcut Key for copy  
 (1) Ctrl + C                    (2) Ctrl + V      (3) Ctrl + Z      (4) Ctrl + X
23. Right-Clicking something in Power Point is a  
 (1) Delete the object  
 (2) Opens a shortcut menu listing everything you can do the object  
 (3) Select the object  
 (4) Nothing the right mouse button is there for left handed people
24. Under which of the following categories is a laptop computer classified ?  
 (1) Microcomputer    (2) Minicomputer    (3) Mainframe    (4) Supercomputer
25. Speed of microprocessor is usually expressed in  
 (1) GHz                    (2) Mbps                    (3) Gigabyte                    (4) Kilobyte
26. An advantage of a manual system is  
 (1) Diligence                    (2) Flexibility    (3) Reliability    (4) Speed
27. Which is true  
 (1) A system is a collection of interrelated components.  
 (2) System components work together to perform a specific task  
 (3) System has a boundary  
 (4) All above are true
28. The system that consists of organized collection of people, procedures, software, databases, and devices used to provide information to decision makers is called  
 (1) Management Information System                    (2) Artificial Intelligence System  
 (3) Decision Support System                    (4) Transaction Processing Systems
29. Identify the three successive phases of the System Development Life Cycle (SDLC) that appear in the correct order  
 (1) Analysis, Design, Testing                    (2) Design, Software Development, Testing  
 (3) Design, Maintenance, Testing                    (4) Maintenance, Design, Analysis
30. Which of the following does **not** produce computer executable machine code as its output?  
 (1) Compiler                    (2) Debugger    (3) Interpreter    (4) Assembler
31. Private Sub Command1- Click( )  
 Dim N As Integer  
     For N = 10 To 0 Step -2  
     Print N;  
     Next N  
 End Sub  
 The output of the above Visual Basic code is  
 (1) 10,8,6,4,2                    (2) 0,2,4,6,8,10                    (3) 10,8,6,4,2 ,0                    (4) 8,6,4,2 ,0
32. Which operators are used to combine two string variables in Visual Basic?  
 (1) + and \*                    (2) + and &  
 (3) - and &                    (4) - and \*

33. Which of the following is not a Visual Basic data type?  
(1) Integer                      (2) Boolean                      (3) Text                      (4) Date
34. An error in a computer program is referred to as a  
(1) Syntax                      (2) Bug                      (3) Debug                      (4) Non of above
35. What is the output of Print( "4" + 2)  
(1) 6                      (2) 42                      (3) 4                      (4) 2
36. What is the output of Print( 3 > 5) and (10 >= 10)  
(1) False and True                      (2) True  
(3) False                      (4) True and False
37. Single Data type cannot store  
(1) 80                      (2) 34.564                      (3) -45                      (4) "c"
38. Private sub command1-Click( )  
Dim A As Integer  
A = A +1  
End Sub  
Private Sub command2- Click( )  
Static B As Integer  
B = B +1  
End Sub  
What are values of variables A and B after clicking each command button twice?  
(1) A=1, B=1                      (2) A=2, B=1,                      (3) A=1, B=2                      (4) A=2, B=2
39. Identify a low level programming language from the following list  
(1) Visual Basic                      (2) Java                      (3) Assembly                      (4) COBOL
40. In programming variables are used to  
(1) Give commands                      (2) Store values  
(3) Convert codes                      (4) Input Values

## Part II

Answer all questions

1. Nimal expects to reduce the damages when using electric water heaters. He think to prepare a bell to ring if the required water level is not there in the jug.

a. Write the truth table by considering the following facts.

- Electricity supplied or not
- Water level above the margin or not

b. Develop the Boolean expression using the above truth table

c. Draw the logic circuit

d. Simplify the following logical expression

$$(A+B)(A+C)$$

2. The following is a table from a database of business organization

EMPNO	First Name	LastName	Designation	Salary	DPT	DateJoined
EMP10	Sunil	Perera	Accountant	30,000	Finance	02/01/2003
EMP06	Gayan	Liyanage	Executive	20,000	General	03/01/2001
EMP18	Kumudu	Silva	A.Assistant	15,000	Finance	06/07/2006
EMP20	Anura	Dias	A.Assistant	15,000	Finance	23/06/2002
EMP16	Wimal	Alwis	Executive	20,000	General	15/03/2004

- a. Which field is suitable for the primary key?
  
- b. Explain why it is suitable for that?
  
- c. Write suitable data types in MS Access for the following fields
  - a. FirstName
  - b. Salary
  - c. DateJoined
  
- d. Company wants to get information about employees who had joined before the 1<sup>st</sup> of January 2005. How to retrieve these information using MS Access?

3. Sri Lanka Electricity Board wants to write a program to prepare the electricity bills for the consumers. Following data is supplied for it.

Meter reading for the last month

Meter reading for the this month

No. of Units	Charge for one unit
0 – 90	Rs. 6.00
More than 90	Rs. 10.00

- a. Write Pseudo code for the above problem

- (b) Draw flowchart to above problem

- (c) Draw a sketch of Visual Basic interface using suitable objects

(d) Write suitable Visual Basic codes calculate the electricity bill

(4). Write short notes on followings

a. Using of computers as educational tool

b. Advantages of computer based information system

c. Network Topology

d. Differences between First Generation computers and Fourth Generation computers