

HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

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 Course: Intruduction to Computer Science CourseID: IT1016
 Exam []Midterm [X]final School year: Date: / /

Mark	Signature of instructor	Signature of examiner

Part I: Multiple Choice Questions

- 1** Which of the following are the functions of a operating system
- A) Allocates resources
 B) Monitors Activities
 C) Manages disks and files
 D) All of the above
- 2** A step-by-step procedure used to solve a problem is called
- A) Algorithm
 B) Application program
 C) Operating system
 D) None of the above
- 3** The decimal equivalent of the binary number 11100001111 is
- A) 1806
 B) 1807
 C) 2806
 D) None of the above
- 4** Which of the following are used to quickly accept, store, and transfer data and instructions that are being used immediately by the CPU?
- A) data buses
 B) microprocessors
 C) registers
 D) ROM chips
- 5** Which amongst the following expression uses bitwise operator?
- A) !a>5
 B) a|b
 C) a!=b
 D) a++
- 6** Which of the following is the odd one out?
- A) j = j + 1;
 B) j =+ 1;
 C) j++;
 D) j += 1;
- 7** The format identifier "%x" is used for _____ data type?
- A) long double
 B) double
 C) float
 D) int
- 8** The first computers were programmed using
- A) assembly language
 B) machine language
 C) source code
 D) object code
- 9** A global variable is a variable
- A) declared in the main () function.
 B) declared in any function other than the main () function.
 C) declared outside the body of every function.
 D) declared any where in the C program.
- 10** "MAN" stands for
- A) Maximum Area Network
 B) Minimum Area Network
 C) Main Area Network
 D) Metropolitan Area Network

11 The software for creating and managing databases is

- A) database system
- B) spreadsheet
- C) database management system
- D) distributed system

12 The translator program used in assembly language is called

- A) Assembler
- B) Compiler
- C) Interpreter
- D) Translator

13 Information in computer read only memory is stored by

- A) engineer
- B) manufacturer
- C) programmer
- D) user

14 Computer operation in which new word replaced old one in a particular memory location is termed as

- A) save operation
- B) fetch operation
- C) control operation
- D) write operation

15 Which of the following is a User-defined data type?

- A) typedef int Boolean
- B) typedef struct {int label ;char name[20];} tname
- C) struct {char name[10], int age};
- D) All of the mentioned

16 The second expression $(j - k)$ in the following expression will be evaluated $(i + 5) \ \&\& \ (j - k)$

- A) if expression $(i + 5)$ is true.
- B) if expression $(i + 5)$ is false.
- C) irrespective of whether $(i + 5)$ is true or false.
- D) will not be evaluated in any case.

17 If the variables i, j and k are assigned the values 5, 3 and 2 respectively, then the expression $i = j + (k + + = 6) + 7$

- A) assigns a value 16 to i
- B) assigns a value 18 to i
- C) assigns a value 20 to i
- D) gives an error message

18 Which of these expressions will return true if the input integer v is a power of two?

- A) $(v | (v + 1)) == 0$
- B) $(\sim v \ \& \ (v - 1)) == 0$
- C) $(v | (v - 1)) == 0$
- D) $(v \ \& \ (v - 1)) == 0$

19 What is the value of the following 8-bit integer after all statements are executed?

```
int x = 1;
x = x << 7;
x = x >> 7;
```

- A) 1
- B) -1
- C) 127
- D) Implementation error

20 Different components on the motherboard of a PC processor unit are linked together by sets of parallel electrical conducting lines. What are these lines called?

- A) Buses
- B) Cables
- C) Conductors
- D) Connectors

21 What is the following function computing? Assume a and b are positive integers.

```
int fn( int a, int b)
{if (b == 0)
    return b;
else
    return (a * fn(a, b - 1));
}
```

- A) Output will be 0 always
- B) Output will always be b
- C) Computing ab
- D) Computing $a + b$

22 Which of the following is true for the statement: `NurseryLand.Nursery.Students = 10;`

- A) The structure `Students` is nested within the structure `Nursery`.
- B) The structure `NurseryLand` is nested within the structure `Nursery`.
- C) The structure `Nursery` is nested within the structure `NurseryLand`.
- D) The structure `Nursery` is nested within the structure `Students`

23 What will be the output of the following code segment?

```
#include <stdio.h>
#include <string.h>
main() {
char s[10];
strcpy(s, "abc");
printf("%d %d", strlen(s), sizeof(s));
}
```

- A) 3 10
- B) 3 3
- C) 10 3
- D) 10 10

25 What is the following program doing?

```
#include <stdio.h>
main ()
{int d = 1;
do
printf("%d\n", d++);
while (d <= 9);}

```

- A) Adding 9 integers
- B) Adding integers from 1 to 9
- C) Displaying integers from 1 to 9
- D) Displaying integers from 2 to 10

27 Example of computer sequential access memory is

- A) magnetic tape
- B) DVD
- C) memory card
- D) hard disk

29 Software which produces experimental results for biologist research can be classified as

- A) Real-time software
- B) Business software
- C) Engineering and science software
- D) Embedded software

24 stores data or information temporarily and passes it on as directed by the control unit

- A) Address
- B) Auxiliary Storage
- C) Main Memory
- D) Register

26 What is the output of the following program?

```
include <stdio.h>
main ()
{ int x = 2, y = 5;
if (x < y) return (x = x+y);
else printf ("z1 ");
printf ("z2");
}
```

- A) z2
- B) z1z2
- C) Compilation error
- D) None of these

28 If $12A7C(16) = X(8)$ then value of X is

- A) 225174
- B) 425174
- C) 17325
- D) 225714

30 Computer memory in which user cannot write new information or instructions is

- A) RWM
- B) RAM
- C) ROM
- D) CMOS

ANSWER SHEET

Q	Answer
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