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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** Example of computer sequential access memory is

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

**2** 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

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

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

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

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

**5** 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

**6** ..... 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

**7** 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

**8** 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

9 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

11 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.

13 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

15 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)  $(v \ \& \ (v - 1)) == 0$

17 Information in computer read only memory is stored by

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

19 The first computers were programmed using

- A) assembly language
- B) machine language
- C) source code
- D) object code

10 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  $a + b$

12 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

14 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

16 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

18 The translator program used in assembly language is called

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

20 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

**21** The decimal equivalent of the binary number 11100001111 is

- A) 1806
- B) 1807
- C) 2806
- D) None of the above

**22** "MAN" stands for

- A) Maximum Area Network
- B) Minimum Area Network
- C) Main Area Network
- D) Metropolitan Area Network

**23** Which of the following is the odd one out?

- A) `j = j + 1;`
- B) `j += 1;`
- C) `j++;`
- D) `j += 1;`

**24** The format identifier "%x" is used for \_\_\_\_\_ data type?

- A) long double
- B) double
- C) float
- D) int

**25** The software for creating and managing databases is

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

**26** 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 anywhere in the C program.

**27** 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

**28** Which of the following are the functions of an operating system

- A) Allocates resources
- B) Monitors Activities
- C) Manages disks and files
- D) All of the above

**29** Which amongst the following expression uses bitwise operator?

- A) `!a>5`
- B) `a|b`
- C) `a!=b`
- D) `a++`

**30** 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

### ANSWER SHEET

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