0579

Sri Lanka Institute of Information Technology

# B. Sc. Special Honours Degree/ Diploma
in
# Information Technology/ Information Systems / Computer Systems and Networking

## Orientation Examination
## 2010

# Computer Skills

Duration: 1 Hour

28th December 2009
9.00 a.m. – 10.00 a.m.

## Instructions to Candidates

- This paper has **THREE** parts. Answer **ALL** questions.
  - Part A – 30 MCQ Question
  - Part B – C Program
  - Part C – Flow chart
- Total Marks is 100.
- Use the Answer sheet provided to write the answers
- This paper contains 08 pages and the cover page.

**Part A** ( Select the most suitable answer and write it in the answer sheet provided at the end of the question paper)

1) What is the world's first general purpose electronic computer?
   a) MARK I
   b) ENIAC
   c) Turing Machine
   d) Colossus

2) In which generation of computers are we currently in?
   a) 2nd Generation
   b) 3rd Generation
   c) 4th Generation
   d) 5th Generation

3) Which of the following statement is TRUE?
   a) Charles Babbage invented the Tabulating Machine
   b) Ada Augusta found the 1st Bug inside a computer
   c) Colossus did not directly affect to the development of computers
   d) Alan Turing designed the first electro-mechanical computer

4) What was the electronic device used in the 2nd generation of computers?
   a) Integrated Circuits (IC)
   b) Transistors
   c) Vaccum Tubes
   d) Mechanical devices

5) Out of the following, which machine/device was used in the early stages of computing?
   a) Hollerith Tabulator
   b) Zuse's Z3
   c) Abacus
   d) Napiers Bones

6) Select the correct statement.
   a) A mini computer is large in size and is designed for single user
   b) A mainframe can not handle huge processing jobs and mathematical calculations
   c) Super computers are mainly used in breaking codes, modeling weather systems or simulating nuclear explosions
   d) PDA and notebooks are not examples of Personal computers or Micro computers

7) Select the appropriate list that includes peripheral devices.
   a) Monitor, Printer, PDA, Touch screen, Joystick
   b) Computer games, mouse, keyboard, Microphone
   c) Laptop, CPU, printer, scanner
   d) Microphone, scanner, LCD monitor, wireless mouse

8) What is the correct statement regarding impact and non-impact printers?
   a) Impact printers produce better outputs than non- impact printers
   b) Dot Matrix Printer and Ink-jet Printer are examples of impact printers
   c) Impact printers are popular and faster than non impact printers
   d) Impact printers generate the print-out by striking the print head against an inked ribbon onto a paper

9) What is the most suitable statement about USB port?
   a) USB stands for Uniform Serial Bus and it is hot-swappable
   b) USB is a robust connecter and it supports plug and play
   c) Parallel port has a faster data transfer rate than a USB port
   d) USB port cannot be used to plug devices like mice, printers or keyboards

10) Choose the incorrect statement about "Application Software"
   a) It is the master program that runs inside a computer
   b) A set of instructions to do a specific task
   c) An application which helps to edit your digital photographs
   d) Application software runs on top of an operating system

11) Why do we need computer network?
   a) To share physical resources such as disk space, printers, scanners etc
   b) To share information
   c) To avoid duplication of data
   d) All are correct

12) Networks which are confined to a small geographic area describes as
   a) PAN
   b) WAN
   c) LAN
   d) MAN

13) Which is <u>not</u> a wireless technology?
   a) Bluetooth
   b) Wi-Fi
   c) WiMAX
   d) Ethernet

14) What is/are the main security concern/s of information systems?

a) Confidentiality
b) Integrity
c) Availability
d) All of the above

15) Which one is not a password attack?

a) Brute force attacks
b) Dictionary attacks
c) Identity Theft
d) Keystroke Monitoring

16) What is the correct set of Control Structures?

a) Sequence , Separation, Repetition
b) Selection, Segmentation, Iteration
c) Selection, Sequence, Repetition
d) Serialization, Linear Progression, Iteration

17) What is NOT a feature of an Algorithm?

a) Be precise
b) Be ambiguous
c) Be logical
d) Be direct

18) What is NOT a capability of a computer?

a) Computer can receive information
b) Computer can perform arithmetic operations
c) Computer can make a decision by it's own
d) Computer can supply information

19) What is incorrect about an algorithm?

a) Algorithm is a step by step procedure for solving a problem
b) Algorithm is a set of instructions written in a programming language
c) Algorithm can be represented using a flowchart
d) Algorithm can be written as a pseudo code

20) What is the correct Pseudo code to do the following task?
" Input 10 numbers and find the sum and the average "

a)
```
SET counter = 0
WHILE counter < 10
        INPUT number
        sum = sum + number
        counter = counter + 1
ENDWHILE
avg = sum/counter
OUTPUT sum, avg
```

b).
```
SET counter = 0
FOR counter = 0 to 10
    INPUT number
    sum = sum + number
    counter = counter + 1
ENDFOR
avg = sum/10
OUTPUT sum, avg
```

c)
```
SET sum = 0, avg = 0
FOR counter = 0 to 9
        INPUT number
        sum = sum + number
ENDFOR
avg = sum/10
OUTPUT sum, avg
```

d).
```
SET sum = 0, avg = 0
FOR counter = 1 to 10
    INPUT number
    sum = sum + number
    counter = counter + 1
ENDFOR
avg = sum/10
OUTPUT sum, avg
```

21. Which of the following programming language can be considered as a low level language
    a) Java
    b) Ruby
    c) Assembly
    d) C++

22. Find the output of the following program.

```
#include <stdio.h>
void main()
{
      printf("Hello \n");
      printf("Welcome");
}
```

    a) Hello Welcome
    b) Hello
       Welcome
    c) Hello \n
       Welcome
    d) Hello \n Welcome

23. Find the output of the following program

```
#include <stdio.h>
void main()
{
     int grade = 5;
     printf("Your grade is %d \n", grade);
}
```

a) Your grade is 5 \n
b) Your grade is grade
c) Your grade is 5
d) Your grade is %d

24. Select the correct list of identifiers

a) MySalary , My_Salary, _mySalary, my_salary
b) price, price1, 1price, Price
c) Character1, char, char_1, character_1
d) _Myname, MyName, myname, my*name

25. Find the value of x++ if the value of the integer variable x is 4

a) 4
b) 5
c) 6
d) none of the above answers

26. Find the correct statement about the code segment below

```
int x = 10;
if (x > 10)
{
     printf("%d \n", x);
}
```

a) It will print numbers from 0 to 10
b) It will print numbers from 1 to 10
c) It will print number 10 only
d) It will not print anything

27. Which code segment will print the even numbers from 0 to 10 (including 0 and 10)?

a)
```
int no;
for (no = 0; no <= 10; no=no+1)
{
     printf("%d \n", no);
}
```

b)
```
int no;
for (no = 1; no <= 10; no=no+1)
{
     printf("%d \n", no);
}
```

c)
```
int no;
for (no = 0; no <= 10; no=no+2)
{
     printf("%d \n", no);
}
```

d)
```
int no;
for (no = 0; no < 10; no=no+2)
{
     printf("%d \n", no);
}
```

28. Find the program that does not contain any errors.

```
a)
void main()
{
       int i;
       for (i=0; i<3; i++)
       {
            printf("Welcome to SLIIT \n");
       }
}
```

b)
```
#include <stdio.h>
void main()
{
      int i = 1
      while (i<4)
      {
           printf("Welcome to SLIIT \n");
           i= i+1;
      }
 }
```

c)
```
#include <stdio.h>
void main()
{
      int i;
      for (i=0; i<3; i+1)
      {
           printf("Welcome to SLIIT \n);
      }
 }
```

d)
```
#include <stdio.h>
void main()
{
      int i;
      for (i=0; i<3; i++)
      {
           printf("Welcome to SLIIT \n");
      }
 }
```

29. Students are grouped based on their marks. Sunil got 45 marks. According to the program segment below, Sunil's group is,

```
if (mark > 45)
     group = 1;
else
     group = 2;
```

a) group 1
b) group 2
c) cannot say
d) None of the above

30. Find the output of the following program

```
#include <stdio.h>
void main()
{
      int no=0;
      while (no < 3)
      {
            printf("***");
            no=no+1;
      }
}
```

a) ***

b) ***
   ***

c) ***
   ***
   ***

d) *********

**Part B:** ( Use the answer sheet provided )

Write a C Program to enter a set of numbers from the keyboard. If the user enters a negative number then allow the user to re-enter a number. If the user enters a positive number then add that to the sum. Stop entering numbers when the user enters -99. Finally print the sum of the positive numbers the user has entered.

**Part C :** ( Use the answer sheet provided )

Draw a flow chart to input 10 integer numbers through the keyboard and display the minimum number.