

Time : 2 1/2hrs

Marks: 75

- Note : 1) All questions are compulsory.
2) All questions carry equal marks.

Computer program

Q.1. A State whether the following statements are true or false: 8

1. The speed of the Third Generation of computer were measured in micro seconds.
2. Super computers are the largest computer made today.
3. Rectangle shape symbol in the flow chart is used for processing.
4. Interpreter first scans the entire program and then translates it into machine code.
5. The speed of the computer is linked to the technology used to built it.
6. A value stored as int has 6 decimals in it.
7. In the format %0wd the 0 is used to indicate that all the leading zeros(if any) will be filled with zeros.
8. A program stops execution when a break statement is encountered.

B. Select the appropriate option from the following: 7

1. The technology used in second generation of computer is _____.
a) Integrated circuits c) transistors
b) Vaccum tubes d) radios
2. 1 Exabyte is equal to _____ Petabytes.
a) 1023 b) 1022 c) 1024 d) 1020
3. The circle shape in the flow chart signifies:
a) Processing c) Decision making
b) Input d) connector
4. The format character used for representing data type long int is _____.
a) %d b) %u c) %ld d) %lf
5. The escape sequence used to represent horizontal tab is _____.
a) \f b) \t c) \" d) \?
6. Case statement is used in _____.
a) For() b) while() c) if() d) switch()
7. Nested if() should be used when we have more than _____ alternatives.
a) 4 b) 1 c) 2 d) 3

Q.2. Answer the following question (Any 3): 15

- a) Write a short note on central processing unit.
- b) Explain different characteristic of computer.
- c) Perform the binary addition of the following:
1) 11011 + 10101 2) 1111 + 0101 3) 1001 + 1111
4) 00101 + 01010 5) 11111 + 11011

OPI0AEO

d) Differentiate between Super Computers and Desktop computers.

Q.3 Answer the following question (Any 3): **15**

- e) Write characteristics of interpreter and compiler.
- f) What is System software? Write note on Operating system.
- g) Discuss the application of computer to Accounting and social media.
- h) Draw flow chart and write algorithm to display even numbers from 1 to 100.

Q.4 Answer the following question (Any 3): **15**

i) Explain different types of operator with example.

j) What is the output of the following C program:

```
#include<stdio.h>
void main()
{ int b=786;
Float a= -9263.65;
printf(“%+010.1f%25d\n”,a,b);
printf(“%+09.3f%+06d\n”,a,b);
}
```

k) Write C – programs to find area of triangle.

l) Give comparison between printf() and puts().

Q.5 Answer the following question (Any 3): **15**

m) Explain if ..else statement with example.

n) Write C – programs for comparison between 2 numbers and display which is greater number.

o) Write C – programs to input the purchase amount & code. If purchase amount exceed 10,000 then discount of 15% is given else 8% is given. Calculate discount & net amount print code, purchase amount, discount & net amount.

p) Write C – programs for the following series:

$$2^2 + 5^2 + 8^2 + \dots + 302^2$$