

B.Tech 2nd Semester Exam., 2016

FUNDAMENTALS OF INFORMATION
TECHNOLOGY

Time : 3 hours

Full Marks : 70

Instructions :

- (i) The marks are indicated in the right-hand margin.
 (ii) There are **NINE** questions in this paper.
 (iii) Attempt **FIVE** questions in all.
 (iv) Question No. 1 is compulsory.

1. Choose the correct answer (any seven) :

2×7=14

(a) The correct descending ordering of the following storage devices according to their speed is

1. RAM
2. register
3. cache
4. hard disk

(i) 2-3-4-1

(ii) 1-2-3-4

(iii) 4-3-2-1

(iv) 2-3-1-4

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(b) Machine level language is a _____ level language.

(i) high

(ii) middle

(iii) low

(iv) high and middle

(c) Which of the following are secondary memory devices?

1. RAM

2. Pendrive

3. Register

4. Hard disk

(i) 1 and 2

(ii) 2 and 3

(iii) 1 and 3

(iv) 2 and 4

(d) How many of the following are browsers?

1. Google

2. Windows

3. Chrome

4. Yahoo

5. Microsoft

(i) 1

(ii) 2

(iii) 3

(iv) 4

(3)

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(e) Which of the following can be used to store integer-type data in C?

1. int
2. float
3. long int
4. string

(i) 1 and 3 (ii) 2 and 4

(iii) 1 (iv) 1, 2 and 3

(f) Pictorial representation of an algorithm is called

(i) pseudocode

(ii) program

(iii) flowchart

(iv) complete algo

(g) Software designed for a specific purpose is called as

(i) system software

(ii) compiler

(iii) specific software

(iv) application software

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(4)

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(h) What will be the output of the following C program?

```
#include <stdio.h>
void main() {
    int else=2;
    printf("%d", else);}
```

(i) 2

(ii) Else

(iii) Compilation error

(iv) None of the above

(i) What will be the output of the following C code?

```
#include<stdio.h>
int main() {
    int i=5, j=2;
    for (j=1, j<=10; j++)
        ++i;
    printf("%d", i);
    return 0;}
```

(i) 13

(ii) 14

(iii) 15

(iv) 16

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(5)

- (j) What will be the output of the following C code?

```
#include <stdio.h>
void main() {
    int i=1, j=5;
    j=++i;
    j=i++;
    printf("%d and %d", j, i);
}
```

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- (i) 2 and 2
(ii) 3 and 3
(iii) 2 and 3
(iv) None of the above
2. (a) Explain the advantages and disadvantages of second generation of computers.
(b) How is ROM different from RAM? 8+6=14
3. (a) Explain the term IT and describe its advantages.
(b) What do you understand by Internet? 9+5=14

(6)

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4. (a) What is Web browser? 14
(b) Explain e-mail and the process of sending an e-mail.
(c) Write a program in C that takes four integer values a, b, c and d from the terminal and evaluates the ratio of (a+b) to (c-d) and prints the result, if (c-d) is not equal to zero. 4+4+6=14
5. (a) Explain different looping techniques with examples in C.
(b) Write a program in C to print your city of birth 10 times in same line using while loop. 9+5=14
6. (a) What are various types of operators supported by C language? Explain briefly each of them.
(b) Write a program in C that reads three numbers and prints the largest of the three numbers using nested if...else statements. 8+6=14
7. Write a program in C that uses function to computes x raised to the power y for integers x and y and returns double-type value. 14

8. (a) Write a program in C to find the shortest element of an array of 100 numbers.

(b) Write a program in C to reverse an integer.

8+6=14

9. Write a program in C to add two matrices using array with proper checks and comments.

14
