

Code : 061201

B.Tech 2nd Semester Exam., 2015

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) :
 akubihar.com $2 \times 7 = 14$

(a) Select the smallest memory unit :

- (i) Kilobyte
 (ii) Megabyte
 (iii) Terabyte
 (iv) Gigabyte

- (b) EPROM stands for
 (i) Error in Programmable ROM
 (ii) Erasable Programmable ROM
 (iii) End of Partition in ROM
 (iv) None of the above
- (c) Which of the following is secondary memory device?
 1. Register
 2. Pen drive
 3. RAM
 4. Hard disk
 (i) 1 and 2
 (ii) 2 and 3
 (iii) 1 and 3
 (iv) 2 and 4

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(d) How many of the following are browsers?

Internet Explorer, Google, Yahoo,
 Windows, Chrome

- (i) 1
 (ii) 2
 (iii) 3
 (iv) 4

(e) Which of the following can be used to store numbers with decimal value in C?

1. Integer
2. Float
3. Double
4. String

(i) 1 and 3

(ii) 2 and 4

~~(iii) 2 and 3~~

(iv) 2, 3 and 4

(v) 2 only

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

(i) system software

(ii) compiler

(iii) specific software

~~(iv) application software~~

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(g) The memory size of double data type in C is

(i) 2 byte

(ii) 4 byte

(iii) 1 byte

~~(iv) 8 byte~~

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

```
#include<stdio.h>
int main( ){
    int if=5;
    printf("%d",if);
    return 0; }
```

(i) 5

(ii) Compilation error

(iii) if

(iv) None of the above

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

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

(i) 10

(ii) 11

(iii) 12

(iv) Compilation error

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- (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",j); }
```

- (i) 2 (ii) 3
(iii) 6 (iv) 7

2. (a) Explain the main features of 3rd and 4th generation of computers.

(b) What are search engines? 8+6=14

3. (a) Describe briefly about secondary storage devices.

(b) What is variable in C language? What are the rules for defining variables?

8+6=14

4. (a) What is smart card? How is it advantageous to use smart card in e-commerce?

(b) Write a C language program to print all Armstrong numbers between 1 to 500.
(e.g., $153 = 1^3 + 5^3 + 3^3 = 153$) 8+6=14

5. (a) Explain different types of functions based on argument passing and return type used in C.

(b) Explain the use of commands break and continue in C language. 9+5=14

6. (a) Write a program in C to generate Fibonacci series using recursion.

~~(b)~~ What is a Web browser? 8+6=14

7. Write a program in C to find the prime numbers between any two numbers. 14

8. Write a program in C to find the smallest and largest element of an array of numbers. 14

9. Write a program in C to subtract matrix *b* from matrix *a* using array with proper checks and comments. 14
