

1E2406

Roll No. \_\_\_\_\_

Total No. of Pages: **3**

**1E2406**

**B. Tech. I/II - Sem. (Main / Back) Exam., March – 2021  
ESC**

**1FY1-06/2FY3-06 Programming for Problem Solving**

**Time: 2 Hours**

**[To be converted as per scheme]**

**Max. Marks: 65**

**Min. Marks: 23**

**Instructions to Candidates:**

***Attempt all five questions from Part A, four questions out of six questions from Part B and one questions out of three from Part C.***

***Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.***

***Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)***

[ersahilkagyan.com](http://ersahilkagyan.com)

1. NIL

2. NIL

**PART – A**

**(Answer should be given up to 25 words only)**

**[5×2=10]**

**All questions are compulsory**

**Q.1 What is the difference between High level language and Low level language?**

**Q.2 Write the syntax of switch case statement in C – language.**

**Q.3 Write application areas of computer.**

**Q.4 Explain Von Neumann Architecture.**

**Q.5 What is keyword? Write names of keyword available in C.**

## **PART – B**

**(Analytical/Problem solving questions)**

**[4×10=40]**

**Attempt any four questions**

- Q.1** Write a program in 'C' to find maximum number among three number and also draw flow chart of this program.
- Q.2** Write r's complement of the following numbers, where r is a radix (base) of these numbers-
- (a)  $(10111010)_2$
  - (b)  $(34056)_8$
  - (c)  $(8750)_{10}$
  - (d)  $(7F3B)_{16}$
- Q.3** Write the program to print the following patterns using loop-
- (a)

```
*
* *
* * *
* * * *
* * * * *
```

(b)

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```
- Q.4** What is flow chart and algorithm? Draw a flow chart and check step by step whether a number is even or odd.
- Q.5** Explain the concepts of file handling in 'C' language. Write a program to copy the data from source file to destination file.
- Q.6** What is array? Explain array of structures with the help of suitable program. Also describe structure within structure with an example.

## PART – C

(Descriptive/Analytical/Problem Solving/Design Questions)

[1×15=15]

Attempt any one questions

Q.1 Perform the following –

(a)  $(651.24)_8 = (?)_2$

(b)  $(5764)_{10} = (?)_8$

(c)  $(10111010)_2 + (10101000)_2$

(d)  $(7051)_{16} = (?)_2$

(e)  $(1111010.11010)_2 = (?)_{16}$

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Q.2 What is memory? Discuss various types of memory. Explain primary and secondary memory in detail.

Q.3 Write a program to read marks of four subjects and print division.

Percentage	Division
$\geq 60$	First
$\geq 48 \ \& \ \leq 59$	Second
$\geq 36 \ \& \ \leq 47$	Third
$< 37$	Fail

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