

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)*

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

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

<https://www.rtuonline.com>

Whatsapp @ 9300930012

Send your old paper & get 10/-

अपने पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से