

11506

Roll No. ~~9001302010~~

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B. Tech. I - Sem. (Main) Exam., Dec. - 2018

ESC

1FY3 – 06 Programming for Problem Solving

Time: 2 Hours

Maximum Marks: 80

Instructions to Candidates:

Part – A: Short answer questions (up to 25 words) 5×2 marks = 10 marks. All five questions are compulsory.

Part – B: Analytical/Problem solving questions 4×10 marks = 40 marks. Candidates have to answer four questions out of six.

Part – C: Descriptive/Analytical/Problem Solving questions 2×15 marks = 30 marks. Candidates have to answer two questions out of three.

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

- Q1 Explain the concept of Arrays in C. [2]
- Q2 What is a pseudo code? [2]
- Q3 Give 4 examples of secondary memory. [2]
- Q4 Convert $(37A)_{16}$ into octal number system. [2]
- Q5 Add 3475 and 2057 in octal number system. [2]

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PART - B

- Q.1 Calculate 9's compliment of 74895. [10]
- Q.2 Subtract $(7657)_8$ from $(863C)_{16}$. [10]
- Q.3 Draw a flow chart to add 2 numbers written as $\left(\frac{a}{b}\right)$ and $\left(\frac{c}{d}\right)$. [10]
- Q.4 State the differences between Assembly and Machine languages. [10]
- Q.5 Explain the difference between structure and union with suitable examples. [10]
- Q.6 What do you understand by Multifile handling? Give a suitable example. [10]

PART - C

- Q.1 Explain the differences among direct, sequential and random access methods. [15]
- Q.2 Write a program to add the contents of 2 arrays using pointer. [15]
- Q.3 (a) Add 101101110 and 01100011 . [15]
- (b) Subtract 100001111 from 1011110000 .
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