

SF - 486

Total No. of Pages : 2

Seat No.	
-------------	--

**T.E. (I.T.) (Semester - V) Examination, November - 2017**  
**SYSTEM PROGRAMMING**  
**Sub. Code : 66303**

Day and Date : Monday, 20 - 11 - 2017

Total Marks : 100

Time : 10.00 a.m. to 01.00 p.m.

- Instructions:
- 1) Answer any 2 questions from Q.1 to Q.3 of section - I any 2 questions from Q.5 to Q.7 of section - II
  - 2) Questions 4 and 8 are compulsory.
  - 3) Figures to the right indicate full marks.

**SECTION - I**

Q1) a) What are language processors? Explain fundamentals of language processing. [8]

b) What is forward reference? Explain how forward reference is tackled by single pass assembler. [8]

Q2) a) How a macro preprocessor processes a macro definition? [8]  
What tables are generated at this stage?

b) Explain assembly language statements with example. [8]

Q3) a) Explain pass D of two pass assembler. [8]

b) Explain Nested macrocalls with an example. [8]

Q4) Write short note on (any 3)

[3 × 6 = 18 ]

a) Macro definition & expansion

b) Variant I & variant II

c) Language processor pass

d) Assembler directives

P.T.O.

SECTION - II

- Q5) a) Explain relocation algorithm in detail. [8]  
b) Explain the object module format of linker for MS-Dos. [8]
- Q6) a) Explain the following optimization transformations [8]  
i) Deadcode elimination  
ii) Frequency reduction  
iii) Common sub expression elimination  
iv) Strength reduction  
b) Explain different parameter passing mechanisms with example. [8]
- Q7) a) Define the terms: [8]  
i) Triples  
ii) Quad triples  
iii) Indirect triples  
iv) Expression trees  
b) Explain compilation of control transfer, condition execution and iterative constructs. [8]
- Q8) Write short notes on : (any 3) [3 × 6 = 18]  
a) Self relocating programs  
b) Memory allocation  
c) Open source softwares  
d) Pure and impure interpreters.

6 × 6 × 6

