Registration No : | | | | | | | | | | |

Total Number of Pages : 01 **B.Tech**
PCS3I103

3rd Semester Back Examination 2019-20
SYSTEM PROGRAMMING
BRANCH : CSE
Max Marks : 100
Time : 3 Hours
Q.CODE : HB682

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.
The figures in the right hand margin indicate marks.

Part-I

Q1 **Only Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) Explain lexical analysis of language processor.
b) Explain any three Code Optimization Techniques.
c) Explain the term loader with its basic function.
d) Define forward references.
e) Explain the term positional parameter.
f) What is the difference between System Software and Application software ?
g) Explain memory allocation in block structured language.
h) Define Assembler.
i) Define operator precedence grammer.
j) What is ambiguity in grammar specification ?

Part-II

Q2 **Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** **(6 x 8)**

a) Define Linking.How external reference is resolved in Linking ?
b) Describe the facilities for dynamic debugging.
c) What is the structure of LEX program ?
d) Which are the methods used for indentifying free memory area ?
e) Write a macro definition for adding numbers 10 times.Use nested macro call to increment numbers by 1 every time in 10 iterations.
f) How the use of programming language can help in making the software reliable ?
g) Explain the term s Binding and Binding Times.
h) Define : L-Attributed definition in detail.
i) Explain the types of grammar.
j) Explain triple and quadruple representation with example.
k) Explain Left recursion,Left factoring in top down parsing.
l) Describe following data structures : OPTAB,SYMTAB,LITTAB and POOLTAB.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 Explain life cycle of source program with neat sketch. **(16)**

Q4 Explain use and field of following tables of a macro KPDTAB,MDT,EVTAB,SSTAB **(16)**

Q5 Explain the drawbacks and benefits of Interpretation. **(16)**

Q6 What is program relocation? How relocation is performed by Linker ? Explain with example. **(16)**