TE (comp) - SEM VI (Rev) Dec 2013 3/12/13

S.P.C.C.

15-11-13-DTP-P-14-AK-3

Con. 8552-13. **LJ-11568**

(3 Hours) **[Total Marks : 100**

N.B. : (1) Question No. **one** is **compulsory**.
(2) Attempt any **four** from the remaining.
(3) Assume suitable data wherever necessary.

1. (a) Differentiate between a system program and an application program with examples. **5**
(b) Explain the different ways of parameter passing in macros. **5**
(c) What are the different error handling techniques used in a compiler. **5**
(d) Explain the various function of a loader. **5**

2. (a) Explain the working of single pass assembles. Show the structure of its databases used. **10**
(b) Differentiate Top-down and Bottom-up passing techniques. Explain shift-reduce passes in detail. **10**

3. (a) Explain the working of Direct Linking Loader with neat flow charts. **10**
(b) Explain the different code optimization techniques in compiter design. **10**

4. (a) What do you mean by ambiguity in grammar ? How will you remove ambiguity from a grammar ? use suitable examples. **10**
(b) Show whether the following grammar is LL (l). Construct the passing table. **10**
$S \rightarrow AB / y\,Da$
$A \rightarrow ab / c$
$B \rightarrow dC$
$C \rightarrow yC / y$
$D \rightarrow xD/y$

5. (a) What is binding ? Explain static and dynamic binding. **10**
(b) Explain the features of Java Compiter Environment. **10**

6. (a) Explain syntax directed translation. Give the syntax directed translation equations for infix to prefix conversion. **10**
(b) With examples explain the different forms of intermediate code generated. **10**

7. Write short notes on (any **two**) :- **20**
(a) Compiter - compiter
(b) Finite automata
(c) SPARC assembler
(d) Garbage collection and compaction.

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T.E. Comp. Sem VI NOV-13

Sub:- OOSE.

12-11-13-DTP-P-14-AK-8

Con. 7348-13.

LJ-11473

(3 Hours) **[Total Marks : 100**

N.B. : (1) Question No. **1** is **compulsory**.
(2) Out of remaining **six** questions, attempt any **four** questions.
(3) Assume suitable **data** wherever **required**.

1. (a) For Construction company software is to be developed with following specifications :- Company undertakes many projects each project is at particular location. Each project is supervised by project manager, assigned by COE of the company. Record related to start of the project, completion of it is maintained. Under each PM there is a team of people of different category like designer, plumber, electrician, Architect, labour etc. Each project is marketed by team of Marketing Executives. **10**
   (i) Draw class diagram for it.
   (ii) Draw use - case diagram.
   (b) Explain agile process with its advantages. Explain any one agile process. **10**

2. (a) How to map following associations to code ? **10**
   (i) Realization of unidirectional one-to-one associations.
   (ii) Bidirectional one-to-one associations.
   (iii) Bidirectinal on-to-many associations.
   (iv) Generalisation.
   (b) Explain coupling and choesion types in detail. **10**

3. (a) Why FTR is necessary ? How FTR is conducted ? **10**
   (b) Explain version control and change control with the help of suitable example. **10**

4. (a) What is Sequence diagram ? What are the elements used in Sequence diagram, explain each . **10**
   (b) Explain Integration and Regression Testing. **10**

5. (a) Explain Singleton Pattern in detail. **10**
   (b) Explain the following with suitable examples :- **10**
   Composition, Association, Generalization, Aggregation.

6. (a) Explain Function Point based Metrices. **10**
   (b) Draw the activity diagram of ATM activities. **10**

7. Write short notes (any **two**) :- **20**
   (a) CMM levels.
   (b) Task Network and Timeline Chart
   (c) Change Control.
