

Con/5770-07.

(REVISED COURSE)

CD-7146

(3 Hours)

[Total Marks : 100]

**N.B. :** (1) Question No. 1 is **compulsory**.(2) Attempt any **four** questions out of remaining **six** questions.

1. (a) How would you collect requirements for small, medium and large scale software development? Mention some of the tools used for requirement elicitation. **10**
- (b) Define product, process, project and the metrics associated with them. **10**
2. (a) What are the different methods of finding out the efforts required to develop the software? **10**
- (b) Design an user interface for on-line bookstore. Assess risk factors. **10**
3. (a) What are the different components that are stored for each version of the software? How would you retrieve the required version? **10**
- (b) SQA is an umbrella activity – Discuss. **10**
4. (a) Draw the state transition diagram to calculate runs scored by a batsman in the cricket ground. **8**
- (b) Give an example to explain the relationship between a CFD and DFD, PSPEC and CSPEC. **12**
5. (a) How would you reduce the maintenance cost of a software and increase reusability? **10**
- (b) In a point of sale system customer can pay by cash or through credit card. Give the architectural design taking care of coupling and cohesion. **10**
6. (a) Draw the flowgraph, find the cc and give the test cases for the following logic. **10**  
 begin  
   int x, y, power ;  
   float z ;  
   input (x, y) ;  
   if (y < 0) power = -y ;  
   else power = y ;  
   z = 1 ;  
   while (power != 0) {  
     z = z \* X ;  
     power = power - 1 ;  
   }  
   if (y < 0)  
     z =  $\frac{1}{z}$  ;  
   output (z) ;  
 end
- (b) Why is Boundary value analysis important? How is equivalence partitioning reduce the number of test cases? **10**
7. Write short notes on :
  - (a) Project Scheduling and Tracking. **10**
  - (b) Reverse Engineering and Re-engineering. **10**