Total No. of Questions : 8]

SEAT No. :

P2047

[Total No. of Pages : 2

[5059] - 652
B.E. (Computer Engineering)
SOFTWARE DESIGN METHODOLOGIES & TESTING
(2012 Pattern)

Time :2½ Hours] *[Max. Marks :70*

Instructions to the candidates:-

1) ***Q 1 and Q 2 are compulsory. Solve Q 3 or Q 4, Q 5 or Q 6, and Q 7 or Q 8.***
2) ***Assume suitable data if necessary.***
3) ***Figures to the right indicate full marks.***

Q 1) a) Explain different views of Software Architecture? What is 4+1 Architecture View Model? Explain with suitable diagram? **[5]**

b) Explain Activity diagram for ATM System? **[5]**

Q 2) a) Explain the Broker pattern for design of service oriented architecture? **[5]**

b) Explain intent, motivation, structure & consequences of Observe pattern. **[5]**

Q 3) a) Explain the modified V-model? **[6]**

b) Discuss the generic steps in defect management process. **[6]**

c) Is complete testing possible? When to stop testing? What are the test resumption criteria? **[6]**

OR

Q 4) a) Discuss the test defect metrics. Provide the sample metrics for priority& severity of defects? **[6]**

b) State and explain different software testing principles? **[6]**

c) Discuss the essential features of modern defect management tools? **[6]**

Q 5) a) Explain integration testing .What are different types of integration testing? **[8]**

b) What is performance testing? Explain performance testing process? **[8]**

OR

Q 6) a) Explain graph based testing with suitable example. **[8]**

b) Consider the following program segment. **[8]**

```
s:= 0
a:=0
while (a< = b) {
a: = a+2;
b: = b-4;
if(a+b<20)
s := s+a+b
else
s: = s+a-b
}
```

i) Draw the control flow graph for the program.

ii) Calculate the cyclomatic complexity of the program.

Q7) a) Explain the generalized architecture of automation tool. Draw the suitable diagram to show different components. **[8]**

b) What are different components of selenium testing tool? **[8]**

OR

Q 8) a) Write a short note on Monkey Talk & highlight its features. **[8]**

b) Explain different methods of mobile testing. **[8]**