

[Total Marks: 80]

(3 Hours)

- N.B. :** 1) Question No.1 is **compulsory**.  
 2) Attempt any **three** from the remaining five questions.  
 3) Answer to sub-questions should be grouped together.

1. (a) Explain in brief the principles of testing (05)  
 (b) Differentiate between functional testing and non-functional testing (05)  
 (c) Compare and contrast V model and VV model (05)  
 (d) What is testing? How is debugging different from testing? (05)
2. (a) How are reviews useful tool for static analysis. Explain role and responsibilities of people involved in reviews (10)  
 (b) What is incident reporting? Explain incident status model. (10)
3. (a) Explain data flow anomalies used to reveal defects using suitable example (10)  
 (b) List and explain principles of testing. (10)
4. (a) Draw CFG and calculate statement coverage, branch coverage and path coverage for the given code (10)  

```

main()
{ int P,Q;
cin>>P;
cin>> Q;
if P+Q > 100
cout<< "Large";
if P > 50
cout<< "P Large";
}

```

  
 (b) Describe test plan. How are test cases prioritized and what is test Exit criteria (10)
5. (a) Discuss the various infrastructure components (TCDB, Defect Repository, and Configuration Management Repository). How would you make these tools operate in unison effectively? (10)  
 (b) What are the different test tool selection criteria? Give steps required to select a tool. (10)
6. Write short notes on (**any four**) (20)
  - (a) Steps in Measurement
  - (b) Software Maintenance Activities
  - (c) Five Views of Software Quality
  - (d) Testing Object Oriented System
  - (e) SQA Plan