Code: DC120   **Subject: SOFTWARE TESTING**

DiplETE – CS {NEW SCHEME}

Time: 3 Hours   **June 2019**   **Max. Marks: 100**

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.
- **Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.**
- **The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.**
- **Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.**
- **Any required data not explicitly given, may be suitably assumed and stated.**

Q.1 **Choose the correct or the best alternative in the following:**   **(2×10)**

a. What direct measures include in the Software product?
   (A) Line of Code (LOC)   **(B)** Execution Speed
   (C) Defect reported   **(D)** All of these

b. Which of the following is not a part of Performance Testing?
   (A) Measuring Transaction rate   **(B)** Measuring response time
   (C) Measuring the LOC   **(D)** None of these

c. Software is divided into separately Named and addressable components, and it's called
   (A) Software   **(B)** Cohesion
   (C) Module   **(D)** Link

d. In SDLC, who is the best person to catch a defect?
   (A) Softwaretester   **(B)** Customer
   (C) Business Analyst   **(D)** Developer

e. The model which estimates the total efforts in terms of person, months of technical project staff is
   (A) Spiral Model   **(B)** Waterfall model
   (C) Prototype model   **(D)** COCOMO model

f. A domain that is linear, complete, consistently closed & simply connected can be called as:
   (A) good   **(B)** ugly
   (C) nice   **(D)** bad

g. Which is a Formal Review Technique?
   (A) Walkthrough   **(B)** Peer to peer review
   (C) Inspection   **(D)** Meeting

h. How many types of graphs are in QC?
   (**A**) 4   (**B**) 5
   (**C**) 6   (**D**) 7

i. Relational Algebra was first described by
   (**A**) Boehm   (**B**) William Stalling
   (**C**) E.F. Codd   (**D**) John Henry Holland

j. During software designing developer always try _____ level of "Cohesion" and _____ Level of "Coupling" for best outcome.
   (**A**) Low, High   (**B**) High, Low
   (**C**) Low, Low   (**D**) High, High

Answer any FIVE Questions out of EIGHT Questions.
Each Question carries 16 Marks

Q.2 a. Explain PDCA Cycle and where testing fits in this? **(6)**

   b. Explain prototype model in SDLC. Also explain how this model overcome the limitations of waterfall model? **(10)**

Q.3 a. What is cohesion and coupling? Also define functional and non functional testing in detail. **(10)**

   b. What is integration testing? Explain Top-down & Bottom-up integration testing with neat diagram. **(6)**

Q.4 a. What is the difference between interoperability testing and performance testing? **(8)**

   b. Define pilot and installation testing in brief. **(8)**

Q.5 a. What is BFSI in transaction testing? Explain. **(8)**

   b. What are the Transaction flow techniques? Define in brief. **(8)**

Q.6 a. What is the concept of domain in testing? Also explain domain testing. **(8)**

   b. Write difference in
      (i) nice and ugly domain
      (ii) Domain and interface testing **(8)**

Q.7 a. Define path testing & basic path testing with example. **(8)**

   b. Explain path expressions and path reduction procedure. **(8)**

Q.8 a. What is decision table? Why it is important in functional testing? Explain. **(10)**
   b. Write short notes on
      (i) Predicates   (ii) Relational operator
      (iii) Structural testing **(6)**

Q.9 a. What are types of requirements gathered for software development? **(8)**

   b. What are the tools for testing in O.O system? **(8)**