2015

Time : 3 hours

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

(Objective Type Questions)

1. Choose the correct answer of the following :   2×10 = 20

   (a) What is Software ?

   (i)   Set of computer programs, procedures and possibly associated document concerned with the operation of data processing

   (ii) A set of compiler instructions

   (iii) A mathematical formula

   (iv) None of the above

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3. (a) What are the three principle types of critical system ? Explain the differences between these.

   (b) Explain why there is a close relationship between system availability and system security.

4. What are the advantages of providing static and dynamic views of the software process as in the Rational Unified Process ?

5. Develop an object model, including a class hierarchy diagram and an aggregation diagram showing the principle components of a personal computer system and its system software.

6. Using your Knowledge of how an ATM is used, develop a set of use-cases that could serve as a basis for understanding the requirements for an ATM system.

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(b) Which of the following is not a product matrix ?

   (i)   Size   (ii)   Reliability

   (iii) Productivity   (iv) Functionality

(c) Management of software development is dependent upon :

   (i)   People   (ii)   Product

   (iii) Process   (iv) All of the above

(d) The term module in the design phase refers to :

   (i)   Functions   (ii)   Procedures

   (iii) Sub programs (iv) All of the above

(e) Spiral Model was developed by :

   (i)   Bev Littlewood (ii) Berry Bohem

   (iii) Roger Pressman (iv) Victor Bisli

(f) Which model is popular for students small projects ?

   (i)   Waterfall Model

   (ii) Spiral Model

   (iii) Prototyping Model

   (iv) Quick and Fix Model

(g) SDLC stands for :

   (i)   Software design life cycle

   (ii) Software development life cycle

   (iii) System design life cycle

   (iv) System development life cycle

(h) Waterfall model is not suitable for :

   (i)   Small projects

   (ii) Complex projects

   (iii) Accommodating change

   (iv) None of the above

(i) Software engineering aims at developing :

   (i)   Reliable software

   (ii) Cost effective software

   (iii) Reliable and cost effective software

   (iv) None of the above

(j) White box testing, a software testing technique is sometimes called :

   (i)   Basic path   (ii) Graph Testing

   (iii) Dataflow   (iv) Glass box testing

Group – B

(Long-answer Type Questions)

Answer any **four** questions of the following :

                              15×4 = 60

2. What are the differences between Generic Software Product Development and Custom Software Development.