Time : $2\frac{1}{2}$ Hours]   [Total Marks : **70**

1 (a)   Answer the following in one line, one word or give   **4**
       full form :
       1.   Full form of SDLC.
       2.   What is a Business System ?
       3.   Full form of DFD.
       4.   Full form of UML.

  (b)   Attempt any one :   **2**
       1.   What is a role of system analyst ?
       2.   What is a sequence Diagram ?

  (c)   Explain any one :   **3**
       1. 0th and 1st level DFD for ATM.
       2.   What is decision tree ? Explain with example ?

  (d)   Attempt any one :   **5**
       1.   Explain SDLC.
       2.   Explain Activity and Use Case Diagram with example.

2 (a)   Answer the following in one line, word or full form :   **4**
       1.   Full form of QA
       2.   Full form of PM-CMM.
       3.   What is the meaning of SEI- CMM level 5
           company ?
       4.   _____ is an international standard for the
           evaluation of software.

  (b)   Attempt any one :   **2**
       1.   What is a software engineering ?
       2.   What is a QA ?

(c) Explain any one : 3

1. What is a McCall's Quality Factor ?

2. What is Six Sigma ?

(d) Explain any one in detail : 5

1. Waterfall Model

2. Spiral Model.

3 (a) Answer the following in one line, word or Full form : 4

1. Full form of SLOC

2. Full form of PERT chart.

3. What is a testing ?

4. Full form of SRS.

(b) Differentiate any one : 2

1. Fault and Failure.

2. Test Case and Test Script.

(c) Explain any one : 3

1. Risk Management in Software Engineering.

2. Explain following testing. (Any three)

a. Performance testing

b. Stress testing

c. System testing

d. Load testing.

(d) Explain any one in detail : 5

1. COCOMO Model with types.

2. White box testing with methods and techniques.

4 (a) Answer the following in one line, word or Full form : 4

1. What is a Kernel ?

2. The history of Linux began in 1991 with the commencement of a personal project by Finnish student _____ to create a new free operating system kernel.

3. What is ctrl - f command in vi ?

4. What is file structure of UNIX ?

(b) Explain any one :   **2**

1. What is a Piping and Redirection in UNIX ?
2. What is a freeware and open source ?

(c) Explain any one :   **3**

1. Modes of Vi editor
2. Functions of OS.

(d) Explain any one in detail :   **5**

1. Types of OS.
2. Explain Following Commands.
   a. Chmod b. Umask c. grep d. Nice e. Cron

5 (a) Answer the following in one line, word or Full form :   **4**

1. Full form of XFce.
2. What is GNOME used for ?
3. Full form of KDE.
4. The _____ variable is a special system-wide environment variable found on Windows NT and its derivatives.

(b) Explain any one :   **2**

1. Shell Variables.
2. Positional parameters

(c) Explain any one :   **3**

1. Operators in Shell Scripting.
2. Decision Statements in Shell Scripting.

(d) Explain any one in detail :   **5**

1. Windows Desktop Environment.
2. Write a shell script to check whether the number is prime or not.

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