[Time: 3 Hours]   **[Marks:60]**

Please check whether you have got the right question paper.

N.B: 1. Questions no.1 is compulsory carries 20 marks.

2. Attempt any four questions from Question 2 to 7. All questions carry equal marks(10 marks)

Q.1   Tech Expo organization decided to implement Inventory Management System. IMS will able to manage inventory and keep track of inventory levels in real time and generate purchases order to replenish stock.IMS has the additional features of managing inventories by locations and zones for all retail outlets of Tech Expo. Using IMS Managers can easily track all the newly added items along with inventory level management. IMS can also prepare professional invoice and forward it to customers.

In this context answer the following:

(Make suitable assumptions wherever necessary; however state those assumptions very clearly)

   a.   List out Use Cases. Draw any one use case of them.
   b.   Design a suitable 1 page MIS report for the CEO of this firm.
   c.   Draw the sequence diagram to represent the processes.
   d.   Draw data flow diagram.

Q.2   Solve **any two** of the following:
   a.   Explain in brief the term "Feasibility study".
   b.   Explain in brief Agile software development model.
   c.   Explain best practices for Software Requirement gathering.

Q.3   Write short notes on **any two** of the following:
   a.   COCOMO model
   b.   Software Reliability
   c.   Incremental Model

Q.4   Solve **any two** of the following:
   a.   Explain in brief the term "Software Configuration Management".
   b.   Enumerate various diagram suggested under UML stating briefly their purpose.
   c.   Define any two of the following terms:
         1.   Error   2. Fault   3. Failure

Q.5   Solve **any two** of the following:
   a.   Explain in detail Risk identification and Risk projection.
   b.   What is prototyping? Discuss its advantages & disadvantages.
   c.   State and explain characteristics of software requirements specification.

Q.6   Solve **any two** of the following:
   a.   Explain in brief User Interface Analysis.
   b.   Enlist and explain the steps required to perform a cost estimation using COCOMO model.
   c.   Explain different levels of software testing.

Q.7   Discuss **any two** of the following techniques:
   a.   Extreme programming (XP)
   b.   SDLC
   c.   Smoke testing.

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