

SOFTWARE ENGINEERING

Duration: 2 Hours

Total Marks: 50

Instructions: 1) All Questions are Compulsory.

2) Figures to the right indicate Full Marks.

3) Start each new question on a fresh page

Q1. Answer the following questions

(2x5=10mks)

- i. Define User requirements and System requirements.
- ii. State any four Software Quality attributes.
- iii. Advantages of Waterfall model
- iv. Benefits of Gantt chart.
- v. Define purpose of State Chart Diagrams

Q2. Answer the following questions

(10 mks)

- a) Differentiate between Functional and Non functional Requirements
- b) State the characteristics of Software
- c) Explain Spiral model with diagram ,advantages and disadvantages

(2 mks)

(3 mks)

(5 mks)

Q3. Answer the following questions

(10 mks)

- a) Explain Include and Extend in usecase diagram

(2 mks)

b) Consider the following scenario

The Retail Store Management System is a system designed for managing goods.

The Retailer checks for the availability of goods in the store. If the stock of goods is less then retailer places order for goods. While ordering the goods, goods are received at store, the retailer then arrange them by product or by price, then retailer makes payment. If the stock of goods is available then he will arrange goods for selling.

The retailer then sells the goods directly to the customer. The customer buys the items from retailer. The retailer prepares bill for goods purchased by the customer, he receives amount by credit or by cash from customer. The supplier supplies the goods to the store in the system.

For the above scenario draw the following

1) Activity diagram (3 mks)

2) Usecase diagram (5 mks)

Q4. Answer the following questions (10 mks)

a) Explain any one type of Feasibility (2 mks)

b) Explain role of messages in Sequence Diagram (3 mks)

c) Draw Class diagram for the following (5 mks)

Consider the Airline system. Many flights land and depart from city's airport. Some of the big cities may have more than one airports. Every flight belongs to specific airline. The planes may have many flights to different airports. Each plane is identified with serial number and model. E.g. hypersonic. There are specific pilots for each airline and they fly many flights. Each flight is identified by flight number and date on which flight is scheduled.

Q5. Answer the following questions (10 mks)

i. What are the advantages of using feasibility study (2 mks)

ii. Define characteristics of good SRS (3 mks)

iii. Explain different phases of Requirement Engineering process (5 mks)
