

3<sup>rd</sup> SEMESTER

(B.Tech.)

MIDTERM EXAMINATION

Sept-2024

COURSE CODE: SE-209a/SE-209n/SE-207a

COURSE TITLE: Software Engineering Methodology/Engineering Analysis  
Design/ Software Engineering

Time: 1:30Hours

Max.Marks:20

Note: All questions are compulsory.  
All questions carry equal marks as mentioned.  
Assume suitable missing data, if any.

- Q.1 Explain the waterfall and spiral models for the software life cycle and discuss various activities in each phase along with a neat and clean diagram. [5] (CO2)
- Q.2 a) How are software myths affecting the software process and what are they? Explain with the help of examples. [2.5\*2] (CO1)
- b) What do you understand with the term “requirements elicitation”? Discuss any two techniques in detail.
- Q.3 The Railway Reservation System is basically developed in order to perform Online ticket reservation and enquiry. Every time a ticket is booked there must be a proper record to be maintained and also the ticket status, availability status must be updated time to time. There may be any new addition of trains and train being deleted or a station added or deleted which must be updated prior in the database. The reservation option enables a person to reserve a ticket in an easier and more efficient manner. Once the train is available the person will be asked to enter his personal details and his requirements regarding the coach and berth. After this, the reservation database is updated with the person details, train name, and also the source and destination place, and a unique PNR number is generated and given as the reference number for the user. The availability status is changed according to the number [2\*3] (CO2)

of tickets booked. The enquiry option allows the user to enter the PNR number and get the current details about the ticket. The software ensures safety and security of details about the passengers, his payment details and ensures integrity of the data being processed.

Draw the following:

- (i) Use case diagram
- (ii) Use case template.
- (iii) Context-level DFD

Q.4 Write short notes on each of the following terms with suitable examples: [4] (CO1)

- a) Product and Process
- b) Throw-away Vs evolutionary prototype

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