University of Sargodha

BS 4th Term Examination 2023

Subject: Information Technology   **Paper: Software Engineering (CMPC-206)**

Time Allowed: 02:30 Hours   **Maximum Marks: 60**

Note: Objective part is compulsory. Attempt any three questions from subjective part.

Objective Part   (Compulsory)

Q.1. Write short answers of the following in 2-3 lines each on your answer sheet.   (2*12)
   i. Why software engineering is said to be a layered technology?
   ii. Define use case diagram. Explain with an example.
   iii. Write down the name of different phases of Rational Unified Process.
   iv. What is Software Reengineering?
   v. Why Black Box Testing is called the End user type perspective? Justify.
   vi. Define Risk Management.
   vii. What is Scrum Process?
   viii. Why use Agile Scrum Methodology?
   ix. What is information hiding?
   x. List the elements of user interface design.
   xi. What is cohesion and coupling?
   xii. Which process model removes defects before software get into trouble?

Subjective Part   (3*12)

Q.2. Estate Agency case study
Clients wishing to put their property on the market visit the estate agent, who will take details of their house, flat or bungalow and enter them on a card which is filed according to the area, price range and type of property. Potential buyers complete a similar type of card which is filed by buyer name in an A4 binder. Weekly, the estate agent matches the potential buyer's requirements with the available properties and sends them the details of selected properties. When a sale is completed, the buyer confirms that the contracts have been exchanged, client details are removed from the property file, and an invoice is sent to the client. The client receives the top copy of a three-part set, with the other two copies being filed. On receipt of the payment the invoice copies are stamped and archived. Invoices are checked on a monthly basis and for those accounts not settled within two months a reminder (the third copy of the invoice) is sent to the client.
Create a context and Level 1 diagram for this Estate Agency case study.

Q.3. What is extreme programming? Describe its phases in detail.

Q.4. a) What is software design? Explain different design concepts in detail.
b) Explain three golden rules that form the basis of interface design.

Q.5. Write a note on different types of software Testing techniques.

Q.6. Compare and Contrast between Incremental Process Model and Prototyping.

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