**MIT Arts, Commerce & Science College, Alandi, Pune**

**S.Y.BSc (Computer Science) - Paper II**

**SEM – IV**

**Software Engineering**

**Question Bank**

**By – Mrs. Rashmi Lad**

**Chapter 1 – Introduction to Software Engineering**

* **Short Question**
  1. What is software engineering?
  2. What is software?
  3. Explain System software?
  4. Explain Application software?
  5. What is Legacy software?
  6. Explain developer myths?
* **Long Question**
  1. What is software? Explain the characteristics of software.
  2. Explain all types of software?
  3. Explain features of Legacy software?
  4. Explain quality of Legacy software?
  5. Write short note on software evolution?
  6. Write short note on software myths?

**Chapter 2 – A Generic View of Process**

* **Short Question**
  1. Explain layers of software engineering?
  2. Explain process technology?
  3. Explain team software process framework activities?
  4. Give the name of personal software process framework activities?
  5. Explain 4 P’s of software development?
  6. What is planning?
* **Long Question**
  1. Explain Software engineering –A layered technology?
  2. Explain framework activities of a process?
  3. Explain all umbrella activities?
  4. Write short note on team software process?
  5. Write short note on personal software process?
  6. Write short note on product & process?
  7. Define process technology in detailed?

**Chapter 3 – Process Models**

* **Long Question**
  1. Explain Waterfall model with suitable diagram?
  2. Explain Increment process models with diagram. Explain advantage & disadvantage?
  3. Explain RAD models. Give the situation where it is applicable?
  4. Explain prototyping models. Explain it’s all steps?
  5. Explain Spiral models with its advantage & disadvantage?
  6. Explain concurrent development model?
  7. Difference between all models?
  8. Explain advantage & disadvantage of waterfall models?
  9. Write in which situation we use all models?

**Chapter 4 – An Agile View of Process**

* **Short Question**
  1. What is Agility?
  2. What is Backlog?
  3. What is Scrum?
  4. What is Scrum Master?
  5. What is XP (Extreme Programming)?
  6. What is Crystal Clear & Crystal Orange?
  7. What is Agile Modeling?
  8. What is Crystal family?
* **Long Question**
  1. What is Agility?
  2. Explain 12 principles of Agility?
  3. Explain human factors considered during agile software development?
  4. Write short note on XP?
  5. Write short note on ASD (Adaptive Software Development)?
  6. Explain the process of Dynamic System Development Method (DSDM)?
  7. What is Scrum? Define all process in detailed.
  8. Explain process of Feature Driven Development (FDD) models?
  9. Explain role of FDD?
  10. Explain core principles of Agile Modeling?

**Chapter 5 – Software Engineering Practice**

* **Short Question**
  1. Explain the essence of practice?
  2. What is High Cohesion?
  3. What is Low Coupling?
  4. What is Granularity?
  5. Define the type of modeling process?
* **Long Question**
  1. Explain the principle of essence of practice?
  2. Explain seven core principle of software engineering?
  3. Explain all principles for planning practices?
  4. Explain all principles for Communication practices?
  5. Explain principles of Analysis modeling?
  6. Explain principles of Design modeling?

**Chapter 6 – System Engineering**

* **Short Question**
  1. Write the definition of Computer Based System?
  2. What is World View?
  3. What is System modeling?
  4. What is System Simulation?
  5. What is application architecture?
* **Long Question** 
  1. Explain Computer Based system with all elements?
  2. Write short note on the System Engineering hierarchy?
  3. Write short note on System Simulation?
  4. Write short note on System Modeling?
  5. Write short on Business process engineering?
  6. Explain different architecture of process engineering?

**Chapter 7 – Requirements Engineering**

* **Short Question**
  1. Write the definition of Requirement engineering?
  2. What is Elicitation?
  3. What is QFD (Quality Function Deployment)?
  4. What do you mean Exciting Requirements?
  5. What do you mean by Elicitation Work Product?
* **Long Question**
  1. Explain Requirement Engineering Task in detailed?
  2. Explain initiating the requirements engineering process?
  3. Explain Eliciting Requirements in detailed?
  4. Explain Analysis models with its all types?
  5. What is Analysis pattern?
  6. Write short note on negotiating requirements?
  7. Write short note on validating requirements?

**Chapter 8 – Building the Analysis Model**

* **Short Question**
  1. What is Requirement Analysis?
  2. Explain Data Object?
  3. What is Data Attributes?
  4. What is Cardinality?
  5. What is Modality?
* **Long Question**
  1. Explain steps for building Analysis Model?
  2. Explain primary objective of Analysis model?
  3. Explain rules of thumb for creating analysis model?
  4. Write short note on Domain Analysis?
  5. Write short note on Data Modeling Concepts?