Assignment 1st

Software Project Management

1. Explain the difference between Programming in the Small and Programming in the Large. Give two challenges of each.

2. Discuss the key causes of software project failures. How can effective risk management and quality assurance help prevent such failures?

3. Imagine you are a project manager of a large-scale e-commerce project. Which visualization techniques (like Gantt Chart, PERT, Kanban, etc.) would you use for planning and monitoring the project, and why?

4. What are the principles of Software Quality Assurance (SQA)? Explain how “defect prevention” and “continuous improvement” contribute to high-quality software development.

5. Trace the historical development of Software Engineering from Jackson Structured Programming to Agile Development. How did Agile address the limitations of earlier models like Waterfall and Spiral?

Research Methodology and IPR

1. Define research methodology in your own words and explain why it is important in conducting research.

2. Give two differences between descriptive research and analytical research with suitable examples.

3. Explain the steps involved in identifying a research problem with an example from computer applications.

4. List and briefly explain any four criteria of good research, giving an example for each.

5. Choose one popular research area in computer applications from the PPT and describe a possible research problem in that area.

Data Mining and data Warehousing

Q.1 Explain the key components of a data warehouse with suitable examples.

Q.2 Discuss the importance of data cleaning in data warehousing.

Cloud Computing

Unit-I

Q1. Explain the term cloud computing with neat Diagram.

Q2. State three major Cloud Services.

Q3. Write architecture of Cloud Computing.

Q4. Basics characteristics of Cloud Computing.

Q5. State three types of Cloud Computing.

Unit-II

Q1. Define grid computing, cluster computing & cloud computing with neat diagram.

Q2. Define concept of virtualization with its types.

Q3. State the term load balancing in cloud computing.

Q4. State the cloud computing architecture - 1. monolithic architecture 2. SOA 3. Microservices.

Q5. Explain benefits of cloud computing.