Important questions of Software engineering

(based on previous year question paper analysis, **FIRST DRAFT**)

SI	Important topics (primary)	Marks	Years asked
1	definition software Engineering	2	2024
2	ISO standards	5	2023,2024
3	Waterfall model definition, diagram, illustrations, explanation: • Iterative model • Classical model	8	2023,2024
4	Black box testing definition, techniques: • All 5 techniques must be explained	8	2023,2024
5	W5HH principles	4	2023,2024
6	Software Process Improvement (SPI) explanation	4,5	2023,2024
7	Project scheduling process note	5,4	2023,2024
8	Risk definition, risk management and its principles, process • RMMM plan	4,3,2	2023,2024
9	Extreme programming definition	2	2023,2024
10	Clean room strategy, testing, design explanations	2,5	2023,2024
11	SDLC models:	5,4	2023,2024

	• Any one of model **COMP** • Agile model and spiral model were asked previously.		
12	Software configuration management (SCM): • Process • Features • Basic concepts	4	2023,2024
13	Non – functional requirements (or Functional requirements)	5	2023
14	White box testing	5	2023
15	Reveres Engineering: • Code restructuring • Data restructuring	4	2024
16	Re-engineering process	4	2024
17	Software maintenance activity	5	2023
18	Testing on Object oriented software	5	2023
19	Roles and responsibility of Project Manager	5	2024
20	Types of box structures	5	2024
21	Verification and validation, differences	5	2024
22	SRS document	2	2024
23	Gantt chart	2	2024
24	Prototyping	2	2024
25	Feasibility studies	2	2023
26	Formal specification	2	2023
27	Unit testing	2	2023
28	Forward engineering	2	2023
29	PSP and TSP	2	2023

Some important definitions:

Software Engineering:

According to IEEE "Software engineering is the systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software; that is, the application of engineering to software. "

Extreme programming:

XP is an agile software development method that emphasizes teamwork, communications and rapid feedback. Its key principles are simplicity, communication, feedback, courage and respect.

ISO

International organization for standardization is an independent, international organization that develops and publishes standards for industries to ensure quality, safety and efficiency.

SPI

Software process improvement is about making continues improvements to the way software is developed, leading to better software products and more efficient development practices.

Project scheduling

it refers to the process of planning and organizing the tasks, activities, and resources required to complete a software development project within a specified timeframe.