

Multiple Choice Questions (*attempt these MCQs on this sheet*) (10)

1. In software engineering, a *software process* is:
  - a. A set of executable modules that run concurrently
  - b. An activity that is executed during all cycles of software development forever
  - c. A sequence of steps that converts inputs to one or more outputs
2. The ISO 9001 standard is best described as the
  - a. guidelines for developing quality manuals
  - b. guidelines for auditing quality systems
  - c. quality assurance requirements for measuring equipment
  - d. quality management systems requirements
3. Process performance is predictable at maturity level known as:
  - a. Optimized
  - b. Defined
  - c. Quantitatively Managed
  - d. Repeatable
4. SEPG that acts similar to CCB is:
  - a. Virtual
  - b. Working
  - c. Oversight
  - d. Deliberative
5. Which two of the following are change resistance sources:
  - a. Insecurity
  - b. Habitat
  - c. Fear of the known
  - d. Income
6. Process fidelity is the degree to which:
  - a. Engineers follow a standard process
  - b. A company follows a standard/Model
  - c. Engineers follow their personal process
  - d. Engineers follow their own defined personal process
7. Which of the following role is like management representative to TSP team:
  - a. Project Manager
  - b. Team lead
  - c. Peer
  - d. Coach
8. Which one of the following statements is true?
  - a. We must start with firm requirements
  - b. If it passes test, it's not OK
  - c. Software quality can be measured
  - d. Problems are technical

9. Which class of SCAMPI is used to appraise a company to certain CMMI level?
- SCAMPI B
  - SCAMPI C
  - SCAMPI A
10. "Opponents" to change lie at which one of the following levels of stakeholder analysis matrix:
- High area of agreement, Low Trust
  - High area of agreement, High Trust
  - Low area of agreement, High Trust
  - Low area of agreement, Low Trust

Answer following short questions: (10)

1. What is software process entropy? Give 2 reasons. (2)

Disruptive forces that often cause organizations to fall back into the chaos trap:

- Dynamic requirements
- Increasing system size
- Human nature. Emotions and ambitions can pose negative effects on overall organization

2. What is the impact of software Gurus on a software project? (1)

Gurus sometimes believe they can do no wrong. But under crisis, limits of intuitive approach are at their peak. Gurus break down!

3. What are the roles of SEPG? Give any 2. (2)

- Change agents
- Define process
- Review process
- Maintain process database
- Serve as focal point for technology insertion
- Provide key process education
- Provide project consultation
- Make periodic assessments and status reports

4. Explain Change Acceptance equation (1)

It says process implementation can be effective only if acceptance of change exists along with quality processes.

5. Which maturity level of CMMI maps "Defining a customized Personal Process" knowledge area of PSP and why? (1)

Level 3 because both of these allow customization or tailoring

6. Convert the following into SMART objectives: (2)

- "Reduce Number of defects"*  
*Reduce number of functional defects by 10 % in next 3 months*
- "Improve Schedule Variance"*

*Schedule variance will be reduced by 25% by end of the quarter*

7. What is gap Analysis? (1)

Difference between requirements of a standard/Model and current processes/practices