

CBCS SCHEME

BCV657D

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Question Paper Version : A

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2026

Quality Control and Quality Assurance

Max. Marks: 50



INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.**

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1. Which of the following is NOT a Quality Guru?
a) Philip B. Crosby
b) W. Edwards Deming
c) Peter Drucker
d) Joseph M. Juran
 2. The PDCA cycle stands for
a) Plan, Do, Check, Act
b) Plan, Do, Check, Adjust
c) Plan, Design, Check, Act
d) Perform, Do, Check, Act
 3. Which of the following definition best describes Quality?
a) The ability of a product to meet Customers' needs and expectation
b) The maximum possible output
c) The durability of a product
d) The value of a product
 4. Which of these is a reason for poor Quality in construction?
a) Inadequate material procurement
b) Lack of skilled labor
c) Improper handling of resources
d) All of these
 5. Quality Control (QC) refers to :
a) A proactive approach to prevent defects
b) A reactive approach to identify defects in products
c) Creating a culture of continuous improvement
d) None of these

6. The concept of Quality Assurance (QA) is best described as
- Preventing defects in products or services
 - Ensuring that every product is thoroughly inspected
 - Checking only the final product
 - Correcting issues after production
7. Which of the following is a key concept in Quality Engineering?
- Applying mathematical and scientific principles to design better products
 - Performing regular checks to ensure Quality compliance
 - Managing customer relationships effectively
 - Ensuring that products meet legal regulations
8. Which of the following is a cost associated with Quality?
- Inspection cost
 - Rework cost
 - Training cost
 - All of these
9. Which of these is a part of Quality Inspection?
- Testing of raw materials
 - Monitoring Production Processes
 - Final product Quality checks
 - All of these
10. According to W. Edwards Deming, how can Organizations improve Quality?
- By improving process control
 - By increasing workforce size
 - By reducing product features
 - By focusing on cost reduction
11. Which of the following best describes TQM?
- A management approach that focuses only on manufacturing Quality
 - An Organisation – wide approach to improving Quality at all levels
 - A certification for Quality assurance
 - A method for measuring customer satisfaction
12. The vision of an organization refers to :
- The current operational status
 - The long – term goals and strategic direction
 - A short – term objective
 - Day – to – day operational activities
13. What is the purpose of Quality Function Deployment (QFD)?
- To reduce production costs
 - To design products that meet customer needs by translating those needs into engineering characteristics
 - To evaluate supplier performance
 - To create training materials
14. Which of the following is a method of Benchmarking in Quality Management?
- Competitive Benchmarking
 - Functional Benchmarking
 - Generic Benchmarking
 - All of these

15. Which of the following is a key benefit of ISO 9000 certification?
- a) Increased brand awareness
 - b) Improved product quality and customer satisfaction
 - c) Lower production costs
 - d) Reduction in material waste
16. Which standard is part of the ISO 9000 family of Quality Management systems?
- a) ISO 9001 b) ISO 14001 c) ISO 16001 d) ISO 12000
17. Which of these is a focus of ISO 14000 standards?
- a) Environmental Management b) Financial Auditing
 - c) Product Testing d) Employee Training
18. The vision and quality policy of an Organisation should be :
- a) Defined by External stakeholders
 - b) General statements without specific goals
 - c) Clear, measurable and aligned with strategic objectives
 - d) Focused only on customer satisfaction
19. Which of the following is an essential part of Quality Management?
- a) Cost cutting measures b) Employee Training and Involvement
 - c) Minimize production time d) Reducing product features
20. In which of the following areas does TQM primarily focus?
- a) Product design and delivery b) Employee skills and involvement
 - c) Customer relationships and feedback d) All of these
21. What is the main goal of Statistical Quality Control (SQC)?
- a) To measure customer satisfaction
 - b) To identify and control variation in processes
 - c) To reduce costs in production
 - d) To design new products
22. What does sampling refer to in SQC?
- a) Measuring all products in the population
 - b) Selecting a portion of products for analysis
 - c) Randomly Inspecting products
 - d) Analyzing customer feedback
23. Which of the following is a statistical parametric used in SQC to measure data dispersion?
- a) Mean b) Variance c) Median d) Mode
24. The measure of Central Tendency refers to :
- a) The spread or variability of data
 - b) The most common value in the dataset
 - c) The average or middle value in a dataset
 - d) The highest value in the dataset

25. What does standard deviation measure in SQC?
- The spread of data points around the mean
 - The average of all data points
 - The range between maximum and minimum values
 - The frequency of defects
26. What does IS 456 : 2000 primarily deal with in terms of concrete quality?
- Concrete compressive strength only
 - Sampling, Testing and acceptance criteria for concrete
 - Material costs
 - Environmental Impact of concrete
27. Which of the following is NOT a type of sampling used in SQC?
- Random sampling
 - Systematic sampling
 - Stratified sampling
 - Defective sampling
28. Which of the following tests is commonly used in concrete quality control?
- Compression test
 - Slump test
 - Impact test
 - All of these
29. In Statistical Quality Control, the control chart is used to
- Track variations in a process over time
 - Assess customer complaints
 - Measure employee performance
 - Forecast future sales
30. What is the primary purpose of sampling in SQC for concrete testing?
- To save time by testing fewer sample
 - To ensure that all concrete meets quality standards without testing every batch
 - To measure the total quantity of concrete used
 - To evaluate the labor efficiency
31. Which of the following is an example of a common error in concrete construction?
- Inadequate curing time
 - Over – mixing the concrete
 - Under - reinforcement
 - All of these
32. How frequently should material testing be performed in construction?
- Once per week
 - After every project completion
 - At regular intervals throughout the project
 - Only when there is a defect
33. Which of these materials should be tested for quality before use in construction?
- Cement
 - Sand
 - Steel
 - All of these
34. What is the purpose of Non – Destructive Testing (NDT) in concrete?
- To measure concrete strength without damaging it
 - To evaluate environmental impact
 - To test the temperature of concrete
 - To measure the cement content

35. Which of the following is NOT a key step in the quality assurance process in construction?
- a) Pre – qualification of suppliers
 - b) Inspection of completed work
 - c) Use of defective materials
 - d) Regular monitoring of processes
36. Which of the following is a norm for accepting construction materials according to IS codes?
- a) Visual Inspection only
 - b) Using only recycled materials
 - c) Meeting strength , durability and other specified properties
 - d) Random selection
37. Which of the following testing methods used for concrete quality control?
- a) Rebound Hammer Test
 - b) Impact Test
 - c) Hardness Test
 - d) Tensile Test
38. Which of these actions ensures proper handling of concrete on a construction site?
- a) Adequate curing and proper storage
 - b) Mixing until the material is homogeneous
 - c) Maintaining the correct proportions of materials
 - d) All of these
39. What is the primary goal of quality control in construction?
- a) Minimize project costs
 - b) Ensure that the construction meets safety and performance standards
 - c) Speed up construction
 - d) Reduce waste only
40. What is a Non – Conformance Report used for in construction?
- a) To track time delays
 - b) To report deviations from quality standards
 - c) To manage the construction budget
 - d) To monitor employee attendance
41. Which stage of construction is concerned with designing the concept of the buildings?
- a) Conceptual Design
 - b) Preliminary Design
 - c) Detailed Design
 - d) Construction
42. Which of the following is tested during the testing stage of construction?
- a) Material strength
 - b) Site safety
 - c) Structural integrity
 - d) All of these
43. Which Non – destructive testing method is used to assess concrete quality?
- a) Rebound Hammer Test
 - b) Flexural Strength Test
 - c) Tensile Strength Test
 - d) Impact Test
44. The Rebound Hammer Test in concrete is used to assess :
- a) Workability
 - b) Compressive Strength
 - c) Durability
 - d) Adhesion

45. What does the USPV test (Ultra Sonic Pulse Velocity) in concrete measure?
- a) Porosity and Cracks in concrete
 - b) Weight and Density
 - c) Moisture content
 - d) Color stability
46. Which of the following is a key factor during construction commissioning?
- a) Final inspection and testing
 - b) Material procurement
 - c) Setting up project Timelines
 - d) Employee training
47. Which document outlines the quality standards to be followed during construction?
- a) Quality Assurance plan
 - b) Project charter
 - c) Material Safety Data sheet
 - d) Structural Design plan
48. Which phase is crucial for ensuring the long – term durability of the construction project?
- a) Conceptual Design
 - b) Construction
 - c) Testing and Commissioning
 - d) Handover
49. During construction testing, if concrete fails to meet the required standards, what should be done?
- a) Ignore and continue the work
 - b) Perform corrective actions and retest
 - c) Increase the cement content
 - d) Replace the contractor
50. Which factor contributes most to achieving quality at every stage of construction?
- a) Use of advanced technology
 - b) Strict adherence to safety protocols
 - c) Proper planning and monitoring
 - d) Frequent meetings with stakeholders

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