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Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2021/2022**

COURSE NAME : PROJECT QUALITY MANAGEMENT  
COURSE CODE : BBY11104  
PROGRAMME CODE : BBY  
EXAMINATION DATE : JANUARY/ FEBRUARY 2022  
DURATION : 3 HOURS  
INSTRUCTION : 1. ANSWER **ALL** QUESTIONS  
2. THIS FINAL EXAMINATION IS  
AN **ONLINE** ASSESSMENT AND  
CONDUCTED VIA **CLOSED**  
**BOOK**

THIS QUESTION PAPER CONSISTS OF **ELEVEN (11)** PAGES

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**TERBUKA**

**SECTION A**

- Q1** Independent party of the project team should be used to \_\_\_\_\_.
- A. plan Project Quality
  - B. perform Quality Assurance
  - C. perform Quality Control
  - D. perform inspections
- Q2** What is the first step of Quality Assurance?
- A. development of standards
  - B. identification of customer need
  - C. servicing
  - D. material control
- Q3** Which of the following is **NOT** a tool for Quality Planning?
- A. Pareto diagram
  - B. Benchmarking
  - C. Design of experiment
  - D. Cost-benefit analysis
- Q4** When doing Quality Planning, the following need to be considered, **except** \_\_\_\_\_.
- A. project scope statement
  - B. project network diagram
  - C. rules, standards, or guidelines that relate to the product or service
  - D. procedures, standards, or guidelines that pertain to the organization
- Q5** A planning phase for an engineering component generated 80 engineering drawings. The QA team randomly selected 8 drawings for inspection. This exercise can **BEST** be described as example of \_\_\_\_\_.
- A. inspection
  - B. statistical sampling
  - C. flow charting
  - D. control charting
- Q6** The customer will only award the project to you if you have a quality certification. The normal industry standard is \_\_\_\_\_.
- A. all project team members are PMP certified
  - B. ISO 9000/ISO 9001
  - C. TQM certification
  - D. a written document from the sponsor

TERBUKA

- Q7** You need to ensure that the customer for your project is satisfied with the result. Your plan is to make sure that the product \_\_\_\_\_.
- A. is delivered on time even if it does not pass all the customer verification tests
  - B. meets all the customer requirements and works under operational conditions
  - C. is tested several times during the project
  - D. has a comprehensive user manual
- Q8** The project sponsor is upset with costs included for quality management and wants to reduce the budget. As a project manager, your response is to \_\_\_\_\_.
- A. reduce the quality management budget
  - B. convince the sponsor that the impact of reducing the budget will result in higher overall costs
  - C. create a change request
  - D. ask the sponsor for a scope reduction
- Q9** The performance information received by the project manager indicates a trend analysis that is falling below standard for achieving the quality required for a series of tasks. The project manager's next step is to \_\_\_\_\_.
- A. continue to monitor results
  - B. add more time to the project schedule
  - C. assess the number of management reserves
  - D. take corrective action
- Q10** Quality Audits are a tool and technique of which Quality Management Process?
- A. Plan Quality Management consistency
  - B. Perform Quality Assurance
  - C. Control Quality
  - D. Validate Scope
- Q11** As part of the Control Quality process, your project team is focused on completing an activity that keeps errors out of the hands of the customer? They are most likely focused on \_\_\_\_\_.
- A. prevention
  - B. inspection
  - C. attribute sampling
  - D. tolerances
- Q12** During a bidder conference, you see that one bidder is your close friend. What should your next step be?
- A. You will pass some confidential info to him
  - B. You will disclose this relationship to your management
  - C. You will resign immediately from the bidding process
  - D. You will try not to give the contract to him to prove your integrity

- Q13** You are a project manager running a project involving a major corporation and many suppliers of different sizes. During the project, you observe the differences between the companies' corporate cultures. This situation leads to different expectations on how the project should be handled and frequent misunderstandings between stakeholders. Another effect is a growing degree of distrust. What should you try first to integrate the diverse stakeholder groups?
- A. Focus on project work. As a project manager, you should not get distracted by big egos.
  - B. Let the problems grow further until they are obvious for all. Then escalate them.
  - C. Develop a joint quality policy for the project and seek a commitment by all organizations.
  - D. Analyze the probability and impact of the risks linked with the situation and plan how to respond to them.
- Q14** A project manager performs quality assurance for a project whose very stringent quality standards. To meet and exceed the quality requirements, the project manager uses a set of technical guidelines applied during the design phase of the project to optimize quality.  
What tool or technique is the project manager using in this scenario?
- A. Design for the quality aspect of the product
  - B. Design of Experiments (DOE) as a quality improvement methodology prevent shrinkage
  - C. The Manage Quality process to ensure compliance with project quality requirements
  - D. Process analysis to identify opportunities for process improvements
- Q15** In the design phase, external experts verified that the team's blueprints for a new crane complied with requirements. However, during the build phase, the customer performed a walkthrough and found that some welding joints on the crane were defective. As a result, the crane needs to be reworked to ensure it can be operated safely.  
How could this situation have been avoided?
- A. Outsourcing the welding to an external vendor
  - B. Testing the welding before the customer walkthrough
  - C. Using the requirements traceability matrix
  - D. Defects are part of any project and cannot be avoided.
- Q16** A technician has just tested a piece of equipment and found a defect. The technician has informed the project manager and submitted a change request to repair the defect, indicating that the repair will require significant rework.  
What should the project manager do first?
- A. Approve the change request
  - B. Consult the change management plan
  - C. Instruct the team to repair the defect
  - D. Reject the change request due to significant rework

- Q17** During an inspection of a project deliverable, the team, detects the same defect in the deliverable that has already been identified during a previous inspection. The project manager is confused about how this could have happened since a change request was approved to repair the defect. After discussing the issue with the team, the project manager learns that the team never implemented the approved change request. What could have helped prevent this situation?
- A. Holding an approved change requests review
  - B. Conducting a retrospective meeting
  - C. Performing a root cause analysis
  - D. Creating a quality report
- Q18** Accreditation refers to one of the following:
- A. Making assessment
  - B. Meeting predetermined standards
  - C. Making care cost effective
  - D. Ensuring Quality
- Q19** Who is associated with the concept of Total Quality Management?
- A. Rensis Likert
  - B. Kurt Lewin
  - C. Max Weber
  - D. W. Edwards Deming
- Q20** Which of the following is for Environment management?
- A. ISO-9000
  - B. ISO-14000
  - C. ISO-26000
  - D. ISO-31000
- Q21** Quality is achieved when \_\_\_\_\_.
- A. exceed customers' every expectation.
  - B. exceed customer's expectations in some way or other.
  - C. the defined requirements of the customers are fulfilled.
  - D. the number of benefits far outweighs the number of defects.
- Q22** Modern quality management practices promote that \_\_\_\_\_.
- A. the inspection helps identify problems; therefore, it is a method of choice for quality management processes.
  - B. prevention helps avoid problems and reduces the overall costs of correcting them in the long run.
  - C. inspection and prevention are both tools and techniques of the quality planning process.
  - D. cost of conformance will always be lower than the cost of nonconformance.

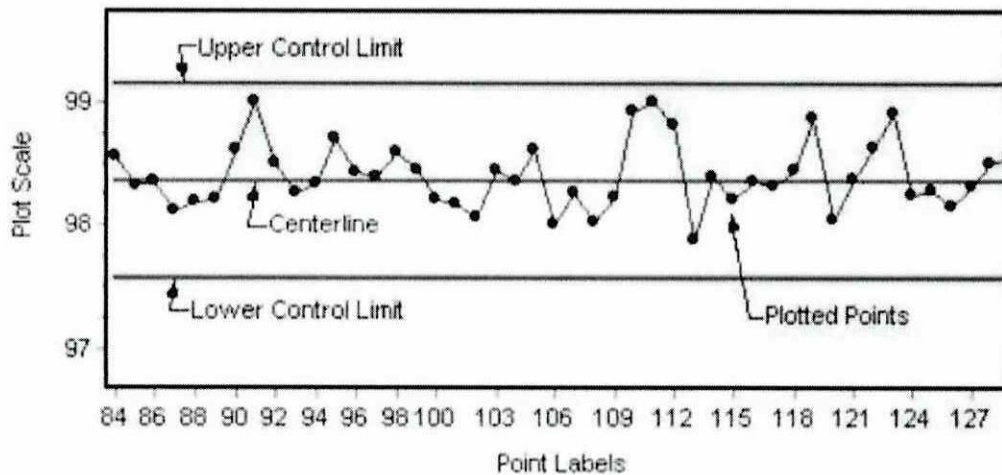
- Q23** Quality in manufacturing means that at a \_\_\_\_\_, all production must be within specification limit and the \_\_\_\_\_ variation from the nominal, the better the quality.
- A. minimum, less.
  - B. minimum, more
  - C. maximum, less
  - D. maximum, more
- Q24** Customers want suppliers to have all of the following except:
- A. High quality level.
  - B. High flexibility to change
  - C. High service level
  - D. High variability in meeting targets
- Q25** \_\_\_\_\_ is the set of activities that ensure the quality levels of products and services are properly maintained and that supplier and customer quality issues are properly resolved.
- A. Quality Assurance.
  - B. Quality Management.
  - C. Quality Control.
  - D. Quality Inspection
- Q26** One of the most powerful aspects to emerge from TQM is the internal customer and supplier concept. This means that
- A. Service Level Agreement must be made to ensure standards are met
  - B. The product must be inspected before the delivery to the customer
  - C. Satisfying own internal customer contributes to external customer satisfaction
  - D. The quality executive must manage the customer-supplier relationship
- Q27** Which of the following is **NOT** an element of TQM?
- A. Leadership
  - B. Perceived quality
  - C. Employee empowerment
  - D. Customer focus
- Q28** Reliability can be measured effectively by using \_\_\_\_\_.
- A. Probability
  - B. Durability
  - C. Failure
  - D. Customer focus
- Q29** Who introduced the use of statistical control charts for monitoring production?
- A. Radford
  - B. Walter Shewart
  - C. Frederick Taylor
  - D. Kaoru Isikawa

- Q30** How often should a status meeting ideally be held to catch up on people's progress?
- A. Once a week
  - B. Every day
  - C. Once a month
  - D. None are needed as long as you keep in touch via email
- Q31** What is the purpose of identifying milestones?
- A. To keep track of your finances
  - B. To help you keep track of each key stage of the project
  - C. To speed up your work process
  - D. To delegate all your tasks to other
- Q32** Which statement **BEST** describes the responsibility of the project manager?
- A. Service Level Agreement must be made to ensure standards are met
  - B. To take ultimate accountability for the delivery of the business benefits
  - C. To deliver the project objectives to enable benefits to be realized
  - D. To delegate all accountability for managing time, cost, and quality to team leaders
- Q33** Who are the stakeholder in a construction project?
- A. Those who are sponsoring your project and providing its resources
  - B. Those who will be affected by the project's outcome and are involved at specific stages
  - C. The people who carry out your delegated tasks throughout the project's duration
  - D. Those who have expertise in specific areas and provide you with advice where Necessary
- Q34** A delivery company defines a "defect" as a package delivered later than the promised delivery time. Management wants to monitor the proportion of packages delivered per week beyond the promised delivery time. Management is willing to sample 150 packages per week and determine which of these packages are "defects."
- A. c-chart
  - B. R-chart
  - C. p-chart
  - D. np-chart
- Q35** Which of the following statements best describes attribute sampling versus variable sampling?
- A. Attribute sampling is concerned with the prevention, whereas variable sampling is concerned with the inspection.
  - B. Attribute sampling is concerned with conformance, whereas variable sampling is concerned with the degree of conformity.
  - C. Attribute sampling is concerned with special causes, whereas variable sampling is concerned with any causes.
  - D. Both are the same concept

- Q36** You're managing a highway construction project. The foreman of your building team alerts you to a problem that the inspection team found with one of the pylons, so you use an Ishikawa diagram to figure out the root cause of the defects. What process is being performed?
- A. Quality Management
  - B. Plan Quality
  - C. Perform Quality Control
  - D. Perform Quality Assurance

- Q37** What type of variation occurs when a process is in control?
- A. Random
  - B. Natural
  - C. Sampling
  - D. Assignable

- Q38** Which type of distribution chart is this?



- A. p-chart
  - B. c-chart
  - C. control chart
  - D. np-chart
- Q39** If the right tail is longer than the left tail, then distribution is called \_\_\_\_\_.
- A. Negatively Skewed
  - B. Positively Skewed
  - C. Symmetrical
  - D. None of these





- Q40** Control limits are \_\_\_\_\_.
- A. Limits defined by customers
  - B. Limits driven by the natural variability of the process
  - C. Limits driven by the inherent variability of the process
  - D. Statistical limits
- Q41** Rank ordering of defects should be used to guide corrective action. What is the underlying principle for this statement?
- A. Trend analysis
  - B. Inspections
  - C. Control Charts
  - D. Pareto diagrams
- Q42** Which statement below is **WRONG** described Histogram and Bar chart?
- A. Both have space between bars
  - B. Both refer to a graphical representation of data
  - C. A histogram has elements grouped and considered as ranges.
  - D. A bar chart has a categorical data
- Q43** What is the skill needed by a construction inspector?
- A. Able to advise on or issue directions concerning aspects of quality
  - B. Understand the principles of materials testing and interpretation of test result
  - C. Acknowledge any substitute materials or equipment
  - D. Authorize deviations from the contract documents
- Q44** Which of the following should be checked by a construction inspector?
- A. Monthly inspection records
  - B. Material testing records
  - C. Design surveying
  - D. Drawing records
- Q45** What is the difference between Quality Assurance (QA) and Quality Control (QC)?
- A. QA is the process to create the deliverables, and QC is a method to verify quality
  - B. QA is aimed to identify and improve defects, and QC aims to prevent the defect
  - C. QA is the process to verify that deliverables, and QC is the process to create the deliverables
  - D. QA is validations of process, and QC is a verification process
- Q46** What things should a construction inspector check?
- A. The production process for flaws that may lead to low-quality products
  - B. Monitor and maintain the quality of products or services
  - C. Monitor process inputs
  - D. Control and monitor a process or production

- Q47** There are basic quality tools for statistical process control (SPC) **EXCEPT**,
- A. Check Sheet
  - B. Critical Path Method (CPM)
  - C. Control Chart
  - D. Flow Chart
- Q48** What is the main purpose of the Building Regulations?
- A. For the artistic outlook of the building
  - B. To ensure the health and safety of people in and about building
  - C. To ensure building raised new ideas that would suffice the needs of building construction
  - D. To make the city look more urbanized and appealing that attract foreign investors
- Q49** There are 4 main points of requirements when checking the products, **EXCEPT**:
- A. Material and Construction
  - B. Weight and dimensions
  - C. Prize
  - D. Markings and Labelling
- Q50** ISO 9001 is the ISO Standard that covers Quality Management System Requirement.
- A. True
  - B. False

**SECTION B**

- Q51** a) “The field of quality management has been studied for more than 100 years since the early 1900s. The establishment of a quality management direction can be traced by looking back at the evolution of quality”.

Based on the statement, describe the development of quality management in the construction industry. Your description should discuss the focus, principles, systems, and tools or techniques used based on the changing era.

(12 marks)

- b) Quality has always been an issue taken seriously in the construction industry. Therefore, implementing the ISO 9001 Quality Management System in Malaysian construction companies is important to address quality issues. As a project manager in a construction organization, explain your opinion on the benefits of implementing the ISO 9000 Quality Management System to:

i) Employees

(4 marks)

ii) Operation

(5 marks)

iii) Company’s Business

(4 marks)

- Q52** The Quality Control Inspection Plan (QCIP) is the master document that controls the quality of the project requirements.

- a) What is the purpose of QCIP?

(5 marks)

- b) Using a diagram, describe and give examples of a project Quality Control Inspection & Test Plan tools used in the construction industry.

(15 marks)

- c) Who is responsible for Quality Control Inspections in the construction industry, and what is their role?

(5 marks)

**END OF QUESTIONS**