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| Image result for adamas university logo | **ADAMAS UNIVERSITY**  **END SEMESTER EXAMINATION**  (Academic Session: 2020 – 21) | | |
| **Name of the Program:** | M. Tech. (CEM) | **Semester:** | II |
| **Paper Title:** | Quality Control and Assurance in Construction | **Paper Code:** | CEM21011 |
| **Maximum Marks:** | 50 | **Time Duration:** | 3 Hrs |
| **Total No. of Questions:** | 17 | **Total No of Pages:** | 02 |
| *(Any other information for the student may be mentioned here)* | 1. At top sheet, clearly mention Name, Univ. Roll No., Enrolment No., Paper Name & Code, Date of Exam. 2. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page. 3. Assumptions made if any, should be stated clearly at the beginning of your answer. | | |

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| **Group A**  **Answer All the Questions (5 x 1 = 5)** | | | |
| 1 | 1. \_\_\_ is a series of standards dealing with quality management systems. 2. a) ISO 9000 3. b) ISO 9001 4. c) ISO 9002 5. d) ISO 9003 | **Understand** | **CO1** |
| 2 | If you are trying to learn whether a customer is satisfied with the construction of a product, what type of factor are you examining?   1. Quality of the product 2. Price of the product 3. Quality of the service provided 4. Value of the product | **Understand** | **CO2** |
| 3 | Which of the following option is correct regarding QA and QC? a) QC is an integral part of QA b) QA is an integral part of QC c) QA and QC are independent to each other d) QC may or may not depend on QA | **Understand** | **CO3** |
| 4 | The items in a personality test correlate strongly with one another. What kind of reliability or validity does this imply?   1. Convergent validity 2. Content validity 3. Internal consistency 4. Retest reliability | **Understand** | **CO4** |
| 5 | Process control is carried out   1. a) before production 2. b) during production 3. c) after production control 4. d) All of the above | **Understand** | **CO5** |
| **Group B**  **Answer All the Questions (5 x 2 = 10)** | | | |
| 6 a) | Write about the process of QMS. | **Understand** | **CO1** |
| **(OR)** | | | |
| 6 b) | Explain the objectives of Quality Assurance. | **Understand** | **CO1** |
| 7 a) | **Define Ergonomics.** | **Understand** | **CO2** |
| **(OR)** | | | |
| 7 b) | What should be the prime factors of quality inspection in construction site? | **Understand** | **CO2** |
| 8 a) | What is a project objective? | **Understand** | **CO3** |
| **(OR)** | | | |
| 8 b) | Why are the audits important? | **Understand** | **CO3** |
| 9 a) | What is failure mode analysis? | **Understand** | **CO4** |
| **(OR)** | | | |
| 9 b) | Write a note on Statistical Quality Control. | **Understand** | **CO4** |
| 10 a) | What is Value Engineering in Project Management? | **Understand** | **CO5** |
| **(OR)** | | | |
| 10 b) | Discuss the Purpose of Life Cycle Cost Analysis | **Understand** | **CO5** |
| **Group C**  **Answer All the Questions (7 x 5 = 35)** | | | |
| 11 a) | Design a suitable organizational structure to maintain construction quality in the site. | **Apply** | **CO1** |
| **(OR)** | | | |
| 11 b) | How does an operational team co-ordinate with program team for completing the project with in the due date? | **Apply** | **CO1** |
| 12 a) | Derive an effective and economically viable QA/QC Programme for a Residential Apartment Project. | **Apply &Analyse** | **CO2** |
| **(OR)** | | | |
| 12 b) | Give a detailed Quality Planning Programme for a Construction Firm using Juran Trilogy. | **Apply** | **CO2** |
| 13 a) | Discuss the difference between QA and QC. | **Understand** | **CO3** |
| **(OR)** | | | |
| 13 b) | List out the reasons for the failure of quality audit in construction site. | **Analyse** | **CO3** |
| 14 a) | How to explore possible causes of the problem in an organization using QC Tool? | **Analyse** | **CO4** |
| **(OR)** | | | |
| 14 b) | Correlate 7 QC Tools with PDCA Cycle. | **Analyse** | **CO4** |
| 15 a) | How to perform Failure Mode and Effect Analysis for Construction Projects? | **Apply** | **CO4** |
| **(OR)** | | | |
| 15 b) | Give a note on Reliability and Validity. | **Understand** | **CO4** |
| 16 a) | Design a Construction Quality Plan for a Multi-storeyed Residential Complex. | **Apply** | **CO5** |
| **(OR)** | | | |
| 16 b) | Propose an effective TQM Implementation Plan for the construction industry. | **Apply** | **CO5** |
| 17 a) | Short Notes on Total Quality Control. | **Understand** | **CO5** |
| **(OR)** | | | |
| 17 b) | What are the steps in the bidding process? | **Understand** | **CO5** |