

# National Testing Agency

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| <b>Question Paper Name :</b> | Continuous Quality Improvement Tools and Techniques 26th<br>March 2021 Shift 2 |
| <b>Subject Name :</b>        | Continuous Quality Improvement Tools and Techniques                            |
| <b>Creation Date :</b>       | 2021-03-26 20:01:35  |
| <b>Duration :</b>            | 180  |
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| <b>Total Marks :</b>         | 100  |
| <b>Display Marks:</b>        | Yes  |

## Continuous Quality Improvement Tools and Techniques

|                                      |           |
|--------------------------------------|-----------|
| <b>Group Number :</b>                | 1         |
| <b>Group Id :</b>                    | 512452198 |
| <b>Group Maximum Duration :</b>      | 0         |
| <b>Group Minimum Duration :</b>      | 120       |
| <b>Show Attended Group? :</b>        | No        |
| <b>Edit Attended Group? :</b>        | No        |
| <b>Break time :</b>                  | 0         |
| <b>Group Marks :</b>                 | 100       |
| <b>Is this Group for Examiner? :</b> | No        |

## Continuous Quality Improvement Tools and Techniques 1

|                                |           |
|--------------------------------|-----------|
| <b>Section Id :</b>            | 512452872 |
| <b>Section Number :</b>        | 1         |
| <b>Section type :</b>          | Online    |
| <b>Mandatory or Optional :</b> | Mandatory |
| <b>Number of Questions :</b>   | 100       |

**Number of Questions to be attempted :** 100  
**Section Marks :** 100  
**Mark As Answered Required? :** Yes  
**Sub-Section Number :** 1  
**Sub-Section Id :** 512452989  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 51245216814 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

When did the Quality movement begin in Japan?

1. 1956
2. 1977
3. 1946
4. 1947

**Options :**

- 51245254139. 1
- 51245254140. 2
- 51245254141. 3
- 51245254142. 4

**Question Number : 2 Question Id : 51245216815 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who said "Quality is Conformance to Requirement and can only be measured by the Cost of Non-conformance"?

1. Philip B. Crosby
2. Joseph M. Juran
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

- 51245254143. 1
- 51245254144. 2
- 51245254145. 3
- 51245254146. 4

**Question Number : 3 Question Id : 51245216816 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who said "Quality is defined as Fitness for Use"?

- 1. Joseph M. Juran
- 2. Philip B. Crosby
- 3. Kouru Ishikawa
- 4. Walter Shewhart

**Options :**

- 51245254147. 1
- 51245254148. 2
- 51245254149. 3
- 51245254150. 4

**Question Number : 4 Question Id : 51245216817 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who is known as a father of modern-day statistical quality control?

- 1. Shewhart
- 2. Deming
- 3. Juran
- 4. Crosby

**Options :**

- 51245254151. 1

51245254152. 2

51245254153. 3

51245254154. 4

**Question Number : 5 Question Id : 51245216818 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who said "Quality consists of the capacity to satisfy wants"?

1. Joseph M Juran
2. Edwards Deming
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

51245254155. 1

51245254156. 2

51245254157. 3

51245254158. 4

**Question Number : 6 Question Id : 51245216819 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Continuous Quality Improvement is possible when you \_\_\_\_\_ the staff.

1. Hire
2. Engage
3. Force
4. Target

**Options :**

51245254159. 1

51245254160. 2

51245254161. 3

51245254162. 4

**Question Number : 7 Question Id : 51245216820 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following is/are responsible for the quality objective?

1. Top level management
2. Middle level management
3. Frontline management
4. All of the above

**Options :**

- 51245254163. 1
- 51245254164. 2
- 51245254165. 3
- 51245254166. 4

**Question Number : 8 Question Id : 51245216821 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

When is root cause analysis required?

1. To address non-conformance identified through audits
2. When a customer is dissatisfied
3. For failing proficiency test reports
4. Both options 1 and 3

**Options :**

- 51245254167. 1
- 51245254168. 2
- 51245254169. 3
- 51245254170. 4

**Question Number : 9 Question Id : 51245216822 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Pareto Principle was given by-

1. Philip B. Crosby
2. Joseph M. Juran
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

- 51245254171. 1
- 51245254172. 2
- 51245254173. 3
- 51245254174. 4

**Question Number : 10 Question Id : 51245216823 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Benchmarking creates objective measures of performance that are based on:

1. Post performance targets within an organization
2. Performance of a competing external organization
3. Some external universal performance target established by the industry
4. All of the above

**Options :**

- 51245254175. 1
- 51245254176. 2
- 51245254177. 3
- 51245254178. 4

**Question Number : 11 Question Id : 51245216824 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What is/are the method/s of data collection?

1. Observation
2. One-on-one interviews
3. Document Review
4. All of the above

**Options :**

- 51245254179. 1
- 51245254180. 2
- 51245254181. 3
- 51245254182. 4

**Question Number : 12 Question Id : 51245216825 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The total number of points in Dr W. Edwards Deming's points are \_\_\_\_\_.

1. 8
2. 10
3. 15
4. 14

**Options :**

- 51245254183. 1
- 51245254184. 2
- 51245254185. 3
- 51245254186. 4

**Question Number : 13 Question Id : 51245216826 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who developed the fishbone diagram?

1. Kaoru Ishikawa
2. Walter Shewhart
3. Joseph M. Juran
4. W. Edwards Deming

**Options :**

- 51245254187. 1
- 51245254188. 2
- 51245254189. 3
- 51245254190. 4

**Question Number : 14 Question Id : 51245216827 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Effective CQI does not require:

1. Leadership and commitment from management with long-term vision
2. Decreased emphasis on inspection
3. Increased investment on employee education and training
4. Periodic redesign of processes/ services

**Options :**

- 51245254191. 1
- 51245254192. 2
- 51245254193. 3
- 51245254194. 4

**Question Number : 15 Question Id : 51245216828 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



What is the use of Ishikawa's diagram?

1. Identify vital few
2. To find the relationship between variables
3. To check whether the process is in control
4. To identify causes of a problem

**Options :**

- 51245254195. 1
- 51245254196. 2
- 51245254197. 3
- 51245254198. 4

**Question Number : 16 Question Id : 51245216829 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Improving quality through small, incremental improvements is a characteristic of what type of quality management system?

1. Just in time
2. Six Sigma
3. Total Quality Management
4. Kaizen

**Options :**

- 51245254199. 1
- 51245254200. 2
- 51245254201. 3
- 51245254202. 4

**Question Number : 17 Question Id : 51245216830 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following is the final step in the Quality Trilogy?

1. Quality Control
2. Quality planning
3. Quality documentation
4. Quality Improvement

**Options :**

- 51245254203. 1
- 51245254204. 2
- 51245254205. 3
- 51245254206. 4

**Question Number : 18 Question Id : 51245216831 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What does PDCA stand for?

1. Plan-Do-Check-Act
2. Plan-Do-Correct-Act
3. Proceed-Do-Check-Act
4. Proceed-Do-Correct-Act

**Options :**

- 51245254207. 1
- 51245254208. 2
- 51245254209. 3
- 51245254210. 4

**Question Number : 19 Question Id : 51245216832 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which stage in the Shewhart cycle implements the change on a small scale?

1. Act stage
2. Do stage
3. Plan stage
4. Check stage

**Options :**

- 51245254211. 1
- 51245254212. 2
- 51245254213. 3
- 51245254214. 4

**Question Number : 20 Question Id : 51245216833 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following is NOT a focus of continuous quality improvement?

1. Processes
2. Exceeding standards
3. Individuals
4. Effective Competition

**Options :**

- 51245254215. 1
- 51245254216. 2
- 51245254217. 3
- 51245254218. 4

**Question Number : 21 Question Id : 51245216834 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who emphasized on the "Seven Quality Tools"?

1. Joseph M. Juran
2. Philip B. Crosby
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

- 51245254219. 1
- 51245254220. 2
- 51245254221. 3
- 51245254222. 4

**Question Number : 22 Question Id : 51245216835 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Of the following quality tools, which would be most useful for identifying a problem that could benefit from a quality improvement strategy?

1. Affinity diagram
2. Histogram
3. Flow chart
4. Run chart

**Options :**

- 51245254223. 1
- 51245254224. 2
- 51245254225. 3
- 51245254226. 4

**Question Number : 23 Question Id : 51245216836 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who introduced Pareto Chart?

1. Dieter Zetsche
2. Kaoru Ishikawa
3. Vilfredo. P
4. W. Edward Deming

**Options :**

- 51245254227. 1
- 51245254228. 2
- 51245254229. 3
- 51245254230. 4

**Question Number : 24 Question Id : 51245216837 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which one of the following is not one of the originators of the Continuous Improvement approach known as Total Quality Management?

1. W. Edward Deming
2. Kaoru Ishikawa
3. Dieter Zetsche
4. Joseph Duran

**Options :**

- 51245254231. 1
- 51245254232. 2
- 51245254233. 3
- 51245254234. 4

**Question Number : 25 Question Id : 51245216838 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

A Pareto diagram can be best described as:

1. Cause and Effect Diagram
2. Scatter Chart
3. Control Chart
4. Histogram

**Options :**

- 51245254235. 1
- 51245254236. 2
- 51245254237. 3
- 51245254238. 4

**Question Number : 26 Question Id : 51245216839 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who should work on a root cause analysis?

1. Only area supervisor(s)
2. Only the supervisor and the Quality Manager
3. The people who are closes to the work on a daily basis
4. Only the person who identified a non-conform

**Options :**

- 51245254239. 1
- 51245254240. 2
- 51245254241. 3
- 51245254242. 4

**Question Number : 27 Question Id : 51245216840 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

When performing a root cause investigation, which of the following should you work hard to avoid?

1. Determining what process was not adequate and why?
2. Assigning the personal blame
3. Assuming the first reason that comes to mind is the ultimate root cause
4. Both options 2 and 3

**Options :**

- 51245254243. 1
- 51245254244. 2
- 51245254245. 3
- 51245254246. 4

**Question Number : 28 Question Id : 51245216841 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Cost of quality is-

1. Prevention costs
2. Failure costs
3. Appraisal costs
4. All of the above

**Options :**

- 51245254247. 1
- 51245254248. 2
- 51245254249. 3
- 51245254250. 4

**Question Number : 29 Question Id : 51245216842 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Most imprecise definition for quality is-

1. Fitness for use
2. Meeting customer expectation
3. Completeness of requirements
4. Efficient and effective product

**Options :**

- 51245254251. 1
- 51245254252. 2
- 51245254253. 3
- 51245254254. 4

**Question Number : 30 Question Id : 51245216843 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

A \_\_\_\_\_ is a histogram or bar chart combined with a line graph that groups the frequency or cost of different problems to show their relative significance.

1. Pareto chart
2. Fishbone diagram
3. Scatter plot
4. Failure mode and effects analysis (FMEA)

**Options :**

- 51245254255. 1
- 51245254256. 2
- 51245254257. 3
- 51245254258. 4

**Question Number : 31 Question Id : 51245216844 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



A \_\_\_\_\_ sorts possible causes into various categories that branch off from the original problem. Also called a cause-and-effect or Ishakawa diagram

1. Scatter Plot Diagram
2. Pareto Chart
3. Fishbone Diagram
4. Failure mode and effects analysis (FMEA)

**Options :**

- 51245254259. 1
- 51245254260. 2
- 51245254261. 3
- 51245254262. 4

**Question Number : 32 Question Id : 51245216845 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Root Cause Analysis relates to:

1. Process Analysis
2. Quality Audits
3. Quality Control Measurements
4. Performance Measurements

**Options :**

- 51245254263. 1
- 51245254264. 2
- 51245254265. 3
- 51245254266. 4

**Question Number : 33 Question Id : 51245216846 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

FMEA is

1. Proactive
2. Reactive
3. Concurrent
4. Correlational

**Options :**

- 51245254267. 1
- 51245254268. 2
- 51245254269. 3
- 51245254270. 4

**Question Number : 34 Question Id : 51245216847 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

FMEA is used to identify potential failure modes and

1. Only identify actions to mitigate the failures
2. None of the alternatives
3. Only determine their effect on the operation of the product
4. Determine their effect on the operation of the product and identify actions to mitigate the failures

**Options :**

- 51245254271. 1
- 51245254272. 2
- 51245254273. 3
- 51245254274. 4

**Question Number : 35 Question Id : 51245216848 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What are the three attributes of a failure that the FMEA scores?

1. Scope, Schedule, Budget
2. Severity, Occurrence, Detection
3. What, When, Who
4. All of the above

**Options :**

- 51245254275. 1
- 51245254276. 2
- 51245254277. 3
- 51245254278. 4

**Question Number : 36 Question Id : 51245216849 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

DMAIC is often associated with \_\_\_\_\_.

1. Six-sigma activities
2. Kaizen board
3. 5-S
4. Acceptance sampling

**Options :**

- 51245254279. 1
- 51245254280. 2
- 51245254281. 3
- 51245254282. 4

**Question Number : 37 Question Id : 51245216850 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

When should FMEA be applied?

1. Early in the development cycle
2. After the development cycle
3. After the product has been launched
4. After customer feedback is obtained

**Options :**

- 51245254283. 1
- 51245254284. 2
- 51245254285. 3
- 51245254286. 4

**Question Number : 38 Question Id : 51245216851 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following is a graphical representation of Cause Effect analysis?

1. Pareto Diagram
2. Fishbone or Ishikawa Diagram
3. Scatter Diagram
4. Run Chart

**Options :**

- 51245254287. 1
- 51245254288. 2
- 51245254289. 3
- 51245254290. 4

**Question Number : 39 Question Id : 51245216852 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which analysis tool provides insight into the likely causes of observed customer complaints?

1. Failure Mode Effects Analysis
2. Quality Function Deployment
3. Process Capability Study
4. Root cause Analysis

**Options :**

- 51245254291. 1
- 51245254292. 2
- 51245254293. 3
- 51245254294. 4

**Question Number : 40 Question Id : 51245216853 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What is RPN?

1. Rajasthan Port Notation
2. Rashtriya Pradhanmantri Nigam
3. Risk Priority Number
4. Registered Project Number

**Options :**

- 51245254295. 1
- 51245254296. 2
- 51245254297. 3
- 51245254298. 4

**Question Number : 41 Question Id : 51245216854 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

According to Deming, Quality problems are

1. Due to Management
2. Due to Method
3. Due to Machine
4. Due to Material

**Options :**

- 51245254299. 1
- 51245254300. 2
- 51245254301. 3
- 51245254302. 4

**Question Number : 42 Question Id : 51245216855 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What are the types of FMEA?

1. System Failure Mode and Effects Analysis (SFMEA) and Design Failure Mode and Effects Analysis (DFMEA)
2. Process Failure Mode and Effects Analysis (PFMEA) and System Failure Mode and Effects Analysis (SFMEA)
3. Design Failure Mode and Effects Analysis (DFMEA) and Process Failure Mode and Effects Analysis (PFMEA) and System Failure Mode and Effects Analysis (SFMEA)
4. None of the above

**Options :**

- 51245254303. 1
- 51245254304. 2
- 51245254305. 3
- 51245254306. 4

**Question Number : 43 Question Id : 51245216856 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Six Sigma can best be defined as-

1. A management methodology that uses only statistical tools to improve the customer experience
2. A customer-focused problem-solving methodology that uses powerful statistical tools to reduce variation and improve processes
3. A management methodology that is primarily focused on achieving financial results.
4. A customer-focused problem-solving methodology used exclusively within the manufacturing sector

**Options :**

- 51245254307. 1
- 51245254308. 2
- 51245254309. 3
- 51245254310. 4

**Question Number : 44 Question Id : 51245216857 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

In DMAIC, the letter "I" stands for?

1. Inputs
2. Identify
3. Improve
4. Implement

**Options :**

- 51245254311. 1
- 51245254312. 2
- 51245254313. 3
- 51245254314. 4

**Question Number : 45 Question Id : 51245216858 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Which of these is NOT a component of quality?

1. Reliability
2. Durability
3. Acceptance sampling
4. Serviceability

**Options :**

- 51245254315. 1
- 51245254316. 2
- 51245254317. 3
- 51245254318. 4

**Question Number : 46 Question Id : 51245216859 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who introduced Six Sigma?

1. FRANCIS GALTON
2. WALTER A. SHEWHART
3. KAORU ISHIKAWA
4. BILL SMITH

**Options :**

- 51245254319. 1
- 51245254320. 2
- 51245254321. 3
- 51245254322. 4

**Question Number : 47 Question Id : 51245216860 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



Who created Just in Time Concept, Waste Reduction Concept and Pull System Concept?

1. James Womack
2. T. Ford
3. Alfred . P. Sloan
4. Taichii Ono and Shingeo Shingo

**Options :**

- 51245254323. 1
- 51245254324. 2
- 51245254325. 3
- 51245254326. 4

**Question Number : 48 Question Id : 51245216861 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

S-chart is used to monitor \_\_\_\_\_ of a quality characteristic.

1. Mean
2. Range
3. Variability
4. Attributes

**Options :**

- 51245254327. 1
- 51245254328. 2
- 51245254329. 3
- 51245254330. 4

**Question Number : 49 Question Id : 51245216862 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The goal of lean manufacturing is to increase profit by reducing:

1. Waste
2. Customers
3. Employees
4. The number of products sold

**Options :**

- 51245254331. 1
- 51245254332. 2
- 51245254333. 3
- 51245254334. 4

**Question Number : 50 Question Id : 51245216863 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who developed the seven wastes (MUDA), which are used in lean to describe nonvalue-added activity?

1. Shigeo Shingo
2. Taiichi Ohno
3. Philip B. Crosby
4. Armand V. Feigenbaum

**Options :**

- 51245254335. 1
- 51245254336. 2
- 51245254337. 3
- 51245254338. 4

**Question Number : 51 Question Id : 51245216864 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who popularized "zero defects" to define the goal of a quality program as the elimination of all defects and not the reduction of defects to an acceptable quality level?

1. Shigeo Shingo
2. Taiichi Ohno
3. Armand V. Feigenbaum
4. Philip B. Crosby

**Options :**

- 51245254339. 1
- 51245254340. 2
- 51245254341. 3
- 51245254342. 4

**Question Number : 52 Question Id : 51245216865 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who worked with Taiichi Ohno to refine Just In-Time (JIT)?

1. Walter Shewhart
2. Shigeo Shingo
3. Philip B. Crosby
4. Armand V. Feigenbaum

**Options :**

- 51245254343. 1
- 51245254344. 2
- 51245254345. 3
- 51245254346. 4

**Question Number : 53 Question Id : 51245216866 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

TPS stands for:

1. Toyota Production System
2. Total Production System
3. Total Productive Solution
4. Tata Production System

**Options :**

- 51245254347. 1
- 51245254348. 2
- 51245254349. 3
- 51245254350. 4

**Question Number : 54 Question Id : 51245216867 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who develop the Single Minute Exchange of Die (SMED)?

1. Taiichi Ohno
2. Philip B. Crosby
3. Armand V. Feigenbaum
4. Shigeo Shingo

**Options :**

- 51245254351. 1
- 51245254352. 2
- 51245254353. 3
- 51245254354. 4

**Question Number : 55 Question Id : 51245216868 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who developed the idea of total quality control based on three steps to quality consisting of quality leadership, modern quality technology, and an organizational commitment to quality?

1. Armand V. Feigenbaum
2. Shigeo Shingo
3. Taiichi Ohno
4. Philip B. Crosby

**Options :**

- 51245254355. 1
- 51245254356. 2
- 51245254357. 3
- 51245254358. 4

**Question Number : 56 Question Id : 51245216869 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

\_\_\_\_\_ is best known for his advocacy of 'ZERO DEFECTS MANAGEMENT & PREVENTION'.

1. Joseph M. Juran
2. Philip B. Crosby
3. Kouru Ishikawa
4. W. Edwards Deming

**Options :**

- 51245254359. 1
- 51245254360. 2
- 51245254361. 3
- 51245254362. 4

**Question Number : 57 Question Id : 51245216870 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which name is associated with the phrase, "quality is free"?

1. Edward Deming
2. Philip B. Crosby
3. Baldrige
4. Ishikawa

**Options :**

- 51245254363. 1
- 51245254364. 2
- 51245254365. 3
- 51245254366. 4

**Question Number : 58 Question Id : 51245216871 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Quality Guru who is known for the Four Absolutes

1. Philip B. Crosby
2. W. Edwards Deming
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

- 51245254367. 1
- 51245254368. 2
- 51245254369. 3
- 51245254370. 4

**Question Number : 59 Question Id : 51245216872 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Quality Guru who is known for the Three Basic Steps to Progress.

1. Joseph M. Juran
2. Philip B. Crosby
3. W. Edwards Deming
4. Kouru Ishikawa

**Options :**

- 51245254371. 1
- 51245254372. 2
- 51245254373. 3
- 51245254374. 4

**Question Number : 60 Question Id : 51245216873 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Quality Guru who is known for the 7 Deadly diseases.

1. W. Edwards Deming
2. Philip B. Crosby
3. Kouru Ishikawa
4. Walter Shewhart

**Options :**

- 51245254375. 1
- 51245254376. 2
- 51245254377. 3
- 51245254378. 4

**Question Number : 61 Question Id : 51245216874 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

P-charts are based on the-

1. Normal distribution
2. Poisson distribution
3. Binomial distribution
4. Negative exponential distribution

**Options :**

51245254379. 1

51245254380. 2

51245254381. 3

51245254382. 4

**Question Number : 62 Question Id : 51245216875 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

The quantity sigma ( $\sigma$ ) indicates

1. Trend in the process
2. Dispersion in the data
3. Average
4. Range

**Options :**

51245254383. 1

51245254384. 2

51245254385. 3

51245254386. 4

**Question Number : 63 Question Id : 51245216876 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**



A ----- is used to explain the time scheduled by separate phases by breaking down the project processes and tasks for the dependencies to be accounted.

1. Bar chart
2. SPC chart
3. PDCA
4. Gantt chart

**Options :**

- 51245254387. 1
- 51245254388. 2
- 51245254389. 3
- 51245254390. 4

**Question Number : 64 Question Id : 51245216877 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Cost-benefit analysis does not include

1. Project benefits
2. Project cost factors
3. Project gain
4. Impact on competitors

**Options :**

- 51245254391. 1
- 51245254392. 2
- 51245254393. 3
- 51245254394. 4

**Question Number : 65 Question Id : 51245216878 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Small/Mid-sized Six Sigma projects are executed by professionals titled as:

1. Champion
2. Green Belt
3. Black Belt
4. Site Champion

**Options :**

- 51245254395. 1
- 51245254396. 2
- 51245254397. 3
- 51245254398. 4

**Question Number : 66 Question Id : 51245216879 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following are examples of Internal Failure costs?

1. Defects and rework
2. Inspection and audits
3. Warranty and return
4. Purchasing and accounting

**Options :**

- 51245254399. 1
- 51245254400. 2
- 51245254401. 3
- 51245254402. 4

**Question Number : 67 Question Id : 51245216880 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Who is considered to be the father of Six Sigma?

1. Bill Smith
2. Walter Shewhart
3. Jack Welch
4. None of the above

**Options :**

- 51245254403. 1
- 51245254404. 2
- 51245254405. 3
- 51245254406. 4

**Question Number : 68 Question Id : 51245216881 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Six Sigma is applicable to

1. Finance
2. Supply chain
3. Healthcare
4. All of the above

**Options :**

- 51245254407. 1
- 51245254408. 2
- 51245254409. 3
- 51245254410. 4

**Question Number : 69 Question Id : 51245216882 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The percentage yield in Six Sigma is

1. 93.3
2. 99.38
3. 99.977
4. 99.99966

**Options :**

- 51245254411. 1
- 51245254412. 2
- 51245254413. 3
- 51245254414. 4

**Question Number : 70 Question Id : 51245216883 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Poka Yoke means

1. Mistake proofing
2. Standardization
3. Process control
4. None of the above

**Options :**

- 51245254415. 1
- 51245254416. 2
- 51245254417. 3
- 51245254418. 4

**Question Number : 71 Question Id : 51245216884 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In "DMAIC", M stands for

1. Method
2. Measure
3. Machine
4. Manpower

**Options :**

- 51245254419. 1
- 51245254420. 2
- 51245254421. 3
- 51245254422. 4

**Question Number : 72 Question Id : 51245216885 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

"DMAIC" is used for projects aimed at

1. Improving an existing business process
2. Creating new product or process designs
3. Both 1 and 2
4. None of the above

**Options :**

- 51245254423. 1
- 51245254424. 2
- 51245254425. 3
- 51245254426. 4

**Question Number : 73 Question Id : 51245216886 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Six Sigma project follows the following project methodology/(ies)

1. DMAIC
2. DMADV
3. Both 1 and 2
4. None of the above

**Options :**

- 51245254427. 1
- 51245254428. 2
- 51245254429. 3
- 51245254430. 4

**Question Number : 74 Question Id : 51245216887 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following was the first set of standards published by the International Standard Organization (ISO) defining a Six Sigma process?

1. ISO 13053:2009
2. ISO 13053:2010
3. ISO 13053:2011
4. ISO 13053:2012

**Options :**

- 51245254431. 1
- 51245254432. 2
- 51245254433. 3
- 51245254434. 4

**Question Number : 75 Question Id : 51245216888 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The aim of Six Sigma initiative is to

1. Reduce cost
2. Improve quality
3. Both 1 and 2
4. None of the above

**Options :**

- 51245254435. 1
- 51245254436. 2
- 51245254437. 3
- 51245254438. 4

**Question Number : 76 Question Id : 51245216889 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Combination of Six Sigma and Lean manufacturing is known as

1. Advanced Six Sigma
2. Lean Six Sigma
3. Operational Six Sigma
4. None of the above

**Options :**

- 51245254439. 1
- 51245254440. 2
- 51245254441. 3
- 51245254442. 4

**Question Number : 77 Question Id : 51245216890 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Processes that operate with “six sigma quality” over the short term are assumed to produce long-term defect levels below \_\_\_ defects per million opportunities (DPMO)

1. 2.4
2. 3.4
3. 4.4
4. 5.4

**Options :**

- 51245254443. 1
- 51245254444. 2
- 51245254445. 3
- 51245254446. 4

**Question Number : 78 Question Id : 51245216891 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Six Sigma strategies seek to improve the quality of the output of a process by

1. Identifying the causes of defects
2. Removing the causes of defects
3. Minimizing variability in manufacturing
4. All of the above

**Options :**

- 51245254447. 1
- 51245254448. 2
- 51245254449. 3
- 51245254450. 4

**Question Number : 79 Question Id : 51245216892 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



The concept of Six Sigma was developed by the following company

1. General Electric
2. Motorola
3. Honeywell
4. DuPont

**Options :**

- 51245254451. 1
- 51245254452. 2
- 51245254453. 3
- 51245254454. 4

**Question Number : 80 Question Id : 51245216893 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The main focus of any Continuous Improvement Project should be the elimination of

1. FTEs
2. Flexibility
3. Waste
4. Organizational levels

**Options :**

- 51245254455. 1
- 51245254456. 2
- 51245254457. 3
- 51245254458. 4

**Question Number : 81 Question Id : 51245216894 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following is NOT one of the seven wastes?

1. Inventory
2. Movement
3. Inventiveness
4. Waiting

**Options :**

- 51245254459. 1
- 51245254460. 2
- 51245254461. 3
- 51245254462. 4

**Question Number : 82 Question Id : 51245216895 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Lean is

1. A Method for reducing labor cost
2. About shortening the Lead Time
3. An efficiency improvement technique
4. A set of tools designed to improve productivity

**Options :**

- 51245254463. 1
- 51245254464. 2
- 51245254465. 3
- 51245254466. 4

**Question Number : 83 Question Id : 51245216896 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which word is not directly related to Six Sigma?

1. Variability
2. Precision
3. Flow
4. Accuracy

**Options :**

- 51245254467. 1
- 51245254468. 2
- 51245254469. 3
- 51245254470. 4

**Question Number : 84 Question Id : 51245216897 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Choose the statement that is not correct

1. LEAN and Six Sigma are both Process Improvement Methodologies
2. LEAN arose as a Method to optimize auto manufacturing (Toyota)
3. Six Sigma evolved as a quality initiative to reduce variance in Motorola
4. Both methodologies are focused in how to optimize the Process flow

**Options :**

- 51245254471. 1
- 51245254472. 2
- 51245254473. 3
- 51245254474. 4

**Question Number : 85 Question Id : 51245216898 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What is a typical semi value added activity (activity needed, but not providing directly value for the Customer)?

1. Check to ensure compliance
2. Rework to correct mistakes
3. Training to bring employee to desired standard
4. Searching documents

**Options :**

- 51245254475. 1
- 51245254476. 2
- 51245254477. 3
- 51245254478. 4

**Question Number : 86 Question Id : 51245216899 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The 5 "W" to be considered during a Root Cause Analysis are

1. Who, What, When, Where and Why
2. Who, Who, Who, Who and Who
3. Why, Why, Why, Why, and Why
4. Who, Why, Who, Why and When

**Options :**

- 51245254479. 1
- 51245254480. 2
- 51245254481. 3
- 51245254482. 4

**Question Number : 87 Question Id : 51245216900 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In a LEAN environment, operators are responsible for

1. Maximizing the output
2. Meet customer requirements
3. Run the processes assigned
4. Execute direct requests to the supervisor

**Options :**

- 51245254483. 1
- 51245254484. 2
- 51245254485. 3
- 51245254486. 4

**Question Number : 88 Question Id : 51245216901 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Value Stream Mapping exercise begins with

1. Customer Specifications
2. A consensus about how the process should be executed
3. A map of the Current Status (process and information flow)
4. Best Practices implementation

**Options :**

- 51245254487. 1
- 51245254488. 2
- 51245254489. 3
- 51245254490. 4

**Question Number : 89 Question Id : 51245216902 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

An employee with time available should

1. Be punished
2. Be rewarded
3. Anticipate his work
4. Perform the next operation on the Value stream

**Options :**

51245254491. 1

51245254492. 2

51245254493. 3

51245254494. 4

**Question Number : 90 Question Id : 51245216903 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which tool is not applicable in the Analyze phase?

1. Pareto
2. Histogram
3. Cause and effect diagram
4. Design of experiments

**Options :**

51245254495. 1

51245254496. 2

51245254497. 3

51245254498. 4

**Question Number : 91 Question Id : 51245216904 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which of the following statements is not correct about Control Charts?

1. It is applicable to every process and useful at any time
2. Its goal is to identify, as quick as possible, the occurrence of specific factors
3. It supplies information about process capability and its stability with time
4. It avoids bringing useless adjustments to the process

**Options :**

- 51245254499. 1
- 51245254500. 2
- 51245254501. 3
- 51245254502. 4

**Question Number : 92 Question Id : 51245216905 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Waste

1. is part of a Process and always inevitable
2. is part of a Process and always evitable
3. is the usage of any resource during the Process, which is not recognized by the Customer as increasing the value they receive
4. cannot be seen on the shop floor

**Options :**

- 51245254503. 1
- 51245254504. 2
- 51245254505. 3
- 51245254506. 4

**Sub-Section Number :**

2

**Sub-Section Id :**

512452990

**Question Shuffling Allowed :**

Yes

**Question Number : 93 Question Id : 51245216906 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

When deciding whether or not to implement CQI, cost should be the most important deciding factor.

1. True
2. False

**Options :**

- 51245254507. 1
- 51245254508. 2

**Question Number : 94 Question Id : 51245216907 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The goal of root cause analysis is to prevent recurrence of a non-conformance.

1. True
2. False

**Options :**

- 51245254509. 1
- 51245254510. 2

**Question Number : 95 Question Id : 51245216908 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Preventive actions do not require monitoring for effectiveness.

1. True
2. False

**Options :**

- 51245254511. 1
- 51245254512. 2



**Question Number : 96 Question Id : 51245216909 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Measure, Improve, Analyse and Control are the four logical filters

1. True
2. False

**Options :**

- 51245254513. 1
- 51245254514. 2

**Question Number : 97 Question Id : 51245216910 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

It is advisable to initiate the Sort and Set-In-Order phases at the same time.

1. True
2. False

**Options :**

- 51245254515. 1
- 51245254516. 2

**Question Number : 98 Question Id : 51245216911 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Juran's Trilogy summarizes the three primary managerial functions: Quality Planning, Quality Control & Quality Improvement.

1. True
2. False

**Options :**

51245254517. 1

51245254518. 2

**Question Number : 99 Question Id : 51245216912 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Quality Improvement phase which deals with continuous improvement of the product and process, is also called the Quality Breakthrough Sequence.

1. True

2. False

**Options :**

51245254519. 1

51245254520. 2

**Question Number : 100 Question Id : 51245216913 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Quality Control takes over after the planning phase.

1. True

2. False

**Options :**

51245254521. 1

51245254522. 2