ACE
Engineering Academy

ESE- 2018 (Prelims) - Offline Test Series   Test-14
GENERAL STUDIES

SUBJECT: STANDARDS AND QUALITY PRACTICES IN PRODUCTION, CONSTRUCTION, MAINTENANCE AND SERVICES
SOLUTIONS

01.   Ans: (c)
Sol: All of the mentioned reasons reduce labour productivity.

02.   Ans: (b)
Sol: First party: Internal customer
Second party: End user
Third party: External customer

03.   Ans: (d)
Sol: a, b & c are correct statements regarding audit.

04.   Ans: (b)
Sol: 'b' is given 50% weightage

05.   Ans: (d)
Sol: Establishing procedures is part of quality assurance.

06.   Ans: (d)
Sol: All the outcomes are potential costs of poor quality.

07.   Ans: (b)
Sol: 1994 version focussed on quality assurance. 2000 version focussed on quality improvement (P-D-C-A is method included). 2015 version increased the focus on environment.

08.   Ans: (a)
Sol: (1) or (2) is compulsory relevant certification.

09.   Ans: (a)
Sol: These standards are some of the frequently searched ones.

10.   Ans: (d)
Sol: All the mentioned ones are contributions of Deming.

11.   Ans: (d)
Sol: Zero defect is the contribution of Crosby.

12.   Ans: (b)
Sol: Lowest frequency is for service failures.

13.   Ans: (a)
Sol: List-I consists of are definitions of quality given by quality Gurus in List-II.

14.   Ans: (b)
Sol: Quality inspector is internal customer, while the rest are external customers.

15.   Ans: (d)
Sol: All are contributions of Juran.

16.   Ans: (b)
Sol: Option (b) is external view while the remaining are internal views.

17.   Ans: (b)
Sol: Reinspection is internal failure cost whole remaining are appraisal costs.

18.   Ans: (d)
Sol: All the mentioned are hidden quality costs, i.e., costs which are very difficult to find.

19.   Ans: (c)
Sol: Deming was against the points mentioned.

20.   Ans: (a)
Sol: List-II is concept given by Gurus in List-I

21.   Ans: (a)
Sol: List-II is definition given by ISO for term used in List-I.

22.   Ans: (a)
Sol: 'a' is special (assignable) cause while the rest are random(common) causes.

23.   Ans: (b)
Sol: $p = \dfrac{20}{100} = 0.2; \quad q = 1 - 0.2 = 0.8$

$n = 10000; z = 2$

$UCL = np + 2\sqrt{npq}$

$\quad = 10000 \times 0.2 + 2\sqrt{0.2 \times 0.8 \times 10000}$

$\quad = 2080$

24.   Ans: (d)
Sol: All the statements are true regarding operating characteristic (OC) curve.

25. Ans: (b)

Sol: $C_{pk} = \dfrac{31.8 - 31.9}{3 \times 0.025} < 1$

$C_p = \dfrac{2 \times 0.1}{6 \times 0.025} > 1$

26. Ans: (b)

Sol: Fish bone diagram is used when enough data is available, while the rest are used when not enough data is available.

27. Ans: (d)

Sol: All the statements are true.
QFD: Quality functional deployment
DFSS: Design for six sigma
FMEA: Failure made effect analysis

28. Ans: (c)

Sol: All the statements are objectives of quality circle.

29. Ans: (d)

Sol: a, b and c are correct statements.

30. Ans: (d)

Sol: Over production, waiting and unnecessary motion are wastes.

31. Ans: (a)

Sol: Objective of SMED is changeover time must be less than 10 minutes.

32. Ans: (d)

Sol: All the mentioned techniques reduce setup time (changeover time).

33. Ans: (d)

Sol: Who, What and How questions and answers are written in matrix diagram called as house of quality used in quality functional deployment.

34. **Ans: (c)**
Sol: Creativity is encouraged but in the process of eliminating waste.

35. **Ans: (d)**
Sol: All the mentioned reasons are responsible for machine failures.

36. **Ans: (d)**
Sol: TPM addressed major losses related to availability, performance and yield.

37. **Ans: (d)**
Sol: Reliability, Assurance, Tangible, Empathy and reliability(RATER) are dimensions of service quality.

38. **Ans: (d)**
Sol: a, b and c are dimensions of service quality usually associated with product quality. Features is a dimension usually associated with product quality.

39. **Ans: (d)**
Sol: Contact method indentifies product defects by testing the product's size, shape, colour or other physical attributes.
Fixed value or constant number method alerts the operator if a certain number of movements are not made.
Motion-step (or sequence) method determines whether the prescribed steps of the process have been followed.

40. **Ans: (b)**

41. **Ans: (d)**

42. **Ans: (a)**

Sol: Taguchi's quality loss concept doesn't tell how to make customer praise.

43. Ans: (a)
Sol: To stream line operations, either automation or elimination of bottlenecks (or both) is considered.
While addressing bottleneck, current process must be addressed.
By implementing any of the above, change over time can be reduced.

44. Ans: (d)
Sol: It is best tool to eliminate root causes because priorities are depicted pictorially.

45. Ans: (b)

46. Ans: (a)
Sol: We will go for second sample only when decision can't be taken with first sample.

47. Ans: (d)
Sol: 5s is not house keeping. In maintaining workplace cleaner and better organised, it gives a chance to improve the process by reducing break downs.

48. Ans: (a)
Sol: Lesser the variation, higher the customer satisfaction.

49. Ans: (b)
Sol: Both statements are true. The correct explanation for statement (I) is 99.75% of all observations lie between $\pm 3\sigma$ from mean.

50. Ans: (a)
Sol: Praising or not praising the product affect customers perception of product and hence company

GATE TOPPERS

GATE 2017

Rank	Branch	Name
1	EC	PRAMOD
1	ME	SUDHEER
1	ME	HASAN ASIF
1	EE	SHIVAM SINGH
1	CE	MRIDUL RAKESH
1	CS	DEVAL N PATEL
1	IN	NAVEEN
2	EC	SREE KALYANI
2	CE	PUNEET KHANNA
2	IN	RAHUL MAHATO
2	IN	SHUBHAM BANSAL
2	PI	GAURAV BHARDWAJ
3	EC	KARUN
3	EE	RAVI TEJA
3	ME	PRADIP BOBADE
3	CS	RAVI SHANKAR
3	CE	ANKUR TRIPATHI
4	EC	SONU SHARMA
4	EE	SARFRAJ NAWAZ
4	CE	CHIRAG MITTAL
4	ME	GAUSH ALAM
4	IN	MONTI
4	PI	Sanghamitra Adhikari
5	IN	VRAJESH SHAH
5	PI	ANKIT TIWARI
6	EC	LIKHITA SAI UPPU
6	CS	MEGHASHAYAM
6	EE	RAJASEKHAR REDDY
6	IN	RAMESH KAMALLA
6	PI	PINAL KUMAR RANA
7	IN	PANKAJ MISHRA
8	ME	DIVYANSHU JHA
8	PI	Mohit Bhargava
9	EC	Anand Uppada
9	CS	Mihir Ranjan Sahoo
9	ME	DHRUV KUMAR JHA
10	EC	AMIT RAWAT
10	ME	ANKUR GUPTA
10	EE	SURAJ DASH
10	IN	Himanshu Muddal
10	IN	NIRMAR DANGWADE

ESE TOPPERS

ESE 2017

CE

Rank	Branch	Name
1	CE	NAMIT JAIN
2	CE	PRAVIND SINGH
3	CE	ANKIT
6	CE	RISHABH DANGAYACH
8	CE	ADITYA SINGH
9	CE	HIMANSHU GAUTAM
10	CE	AYUSH DUBEY

7 IN TOP 10 RANKS

🏆 **7**
All India 1st Rank in ESE.

E&T

Rank	Branch	Name
2	E&T	SUDHANSHU CHAUDHARY
3	E&T	KAVULURI SRINIVASULU
5	E&T	AMIT GAUTAM
6	E&T	SUBHRANGINI MISHRA
7	E&T	DEVADURGAM PAWAN KUMAR
8	E&T	DEEPALI GOYAL
9	E&T	ABHISHEK PRATAP SINGH
10	E&T	UMESH

8 IN TOP 10 RANKS

EE

Rank	Branch	Name
2	EE	PREETI KUMARI
3	EE	SUMAN CHANDRA SHARMA
4	EE	HARSHIT KUMAR SINGH
5	EE	NIKHIL KUMAR
6	EE	DUSHYANT SINGH
8	EE	APOORVA GUPTA
9	EE	KIRAN BABU KONERU

7 IN TOP 10 RANKS

and many more...

ME

Rank	Branch	Name
3	ME	SAURABH
4	ME	AMIT KUMAR RAI
6	ME	ANKAN GUPTA
7	ME	DHRUW JHA
9	ME	ACHARAJ GUPTA

5 IN TOP 10 RANKS

🏆 **27**
Ranks in Top 10 in ESE-2017

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