

INDIAN STATISTICAL INSTITUTE
SQC & OR Unit, Hyderabad

MS in Quality Management Science: 2017 - 2019
III SEMESTER: FINAL EXAMINATION

Subject: Quality Assurance

Date: 22 November 2018 (Thursday)

Duration: 3 Hours

Max. Marks: 100

INSTRUCTIONS

This paper contains questions for 117 Marks. Answer as much as you can, but the maximum you can score is 100 Marks.

- 1) In the context of an ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 certified organization, state whether the following statements are TRUE or FALSE. Give brief justification to your answer quoting the applicable Clause Number, if exists. (8 x 3 = 24)
- i) The organization shall review the statutory and regulatory requirements applicable to the products and services
 - ii) Administrative controls are more effective compared to engineering controls in reducing health and safety risks.
 - iii) Government authorities shall also be communicated relevant information regarding emergency preparedness and response to potential hazards identified.
 - iv) Joint Audit and Combined Audit are different.
 - v) An incident which has the potential for injury or ill health can also be referred to as "close call"
 - vi) A good auditor will not take unpopular decisions.
 - vii) The organization shall evaluate its environmental performance and the effectiveness of the environmental management system.
 - viii) The organization shall communicate its environmental aspects among the various levels and functions of the organization, as appropriate.
- 2) Briefly explain any FIVE of the following (5 x 6 = 30)
- i) What are the constellations available in CMMI V 1.3? Explain their applicability.
 - ii) Define Generic Goal, Generic Practice, Specific Goal and Specific Practice in CMMI V 1.3

- iii) Which organizations can use COPC standard? Give COPC standard frame work with points.
- iv) What are the domains that need to be taken care in ISO 27001:2013, what are the number of control objectives and number of controls in each of the domains?
- v) As per IATF 16949:2016, what are the additional requirements under Control of production and service provision?
- vi) The structure of ISO 9001 in PDCA cycle

3) Write short notes on any FOUR of the following

(4 x 7 = 28)

- i) Types of environmental pollutions and remedial measures
- ii) Briefly explain trail following in conducting audits
- iii) Risk control hierarchy in OHSMS
- iv) Briefly explain how to plan and conduct Internal Audits in an ISO 9001, ISO 14001 & ISO 45001 certified organization.
- v) ISO 9001 clauses and statistical techniques applicable to QC and Marketing functions.

4) Answer any FIVE of the following.

The following audit observations are made at an IMS (ISO 9001:2015 / ISO 14001:2015 / ISO 45001:2018) certified organization. State whether each observation is a NC or not. If NC, then mention the relevant Standard, Clause Number and justify with brief explanation. If it is not an NC, give justification of compliance to the Clause. *(Each question carries 7 Marks. Clause identification - 4 Marks. Justification – 3 Marks)*

(5 x 7 = 35)

- i) ABC Company has been monitoring customer's perceptions of degree to which their needs have been fulfilled. The company is further determining the methods for obtaining, monitoring and reviewing this information.
- ii) The organization shall determine training needs associated with its significant environmental aspects and its environmental management system

- iii) XYZ Corporation has established, implemented and has been maintaining processes that are ongoing. The process(s) shall also take into account actual changes in organization, operations, processes, activities and the OH&S management system.
- iv) ABC company shall establish, implement and maintain a process(es) needed to prepare for and respond to potential emergency situations including communicating relevant information to contractors, visitors, emergency response services and the local community.
- v) The organization shall identify the status of outputs with respect to monitoring and measurement requirements throughout production and service provision.
- vi) The organization shall determine and have access to the compliance obligations related to its environmental aspects.