

Total No. of Questions : 6]

SEAT No. :

P5012

[Total No. of Pages : 2

B.E. /Insem. - 11

B.E. (Civil)

TQM & MIS

(2012 Pattern) (Semester - I) (Elective - II)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4 and Q.5 or Q.6.*
- 2) *Figures to the right indicate full marks.*
- 3) *Use of non-programmable electronic scientific calculator is allowed.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain why "quality" on a construction project is very important in the context of the "project life-cycle concept", with examples. [4]
- b) Discuss challenges faced by the Indian Construction companies w.r.t. the "quality aspects", in the fierce global business competition. [4]
- c) Elaborate Juran's definition of "quality" with an example. [2]

OR

- Q2)** a) Enumerate 8 most important factors which govern the quality of an underground water tank constructed in random rubble masonry and plastered from inside. [4]
- b) As a quality control manager, recommend 4 measures to be adopted by the contractor, in the construction of a brick wall, so as to ensure a quality construction. [4]
- c) "Human nature and absence of quality are inter-related". Explain validity of this statement or otherwise, with any example. [2]

- Q3)** a) Define "MIS" and explain with examples how a MIS will benefit construction organisations in effective management of construction projects. [1 + 4]
- b) Discuss limitations of MIS with examples. [5]

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OR

- Q4)** a) Explain in brief 3 sub-systems of any MIS. [6]
- b) Discuss data and information inputs needed to prepare a MIS for a client's organisation so as to keep a track of the attendance of its employees on work, including overtime aspects. [4]

- Q5)** a) Explain the concept of "management" of "quality" in "totality" on a residential construction project, from the owner's perspective, considering project life-cycle and customer aspects. Involve various other stakeholders, resources involved in elaborating the concept. [5]
- b) In a tabular format explain the six sigma levels. Which is the minimum sigma level which should certainly exist on any construction activity? Why? [3 + 1 + 1]

OR

- Q6)** a) Discuss advantages of using TQM on construction projects, by citing various examples. [5]
- b) Elaborate on the organisational culture, policies, procedures, processes, systems etc, which are to be defined and implemented within any construction organisation in order to attain the 6th sigma level of performance. Assume any other relevant aspects, for your discussion. [5]

