

## **MODEL QUESTION PAPER**

**Subject:** 2110004 - Elements of Civil Engineering

**Time:** 150 Minutes

<b>Remembrance based sample questions</b>	
<i>Question No</i>	<i>Question Description</i>
A1	Recall the following technical terms. (i) Circulation (ii) Declination (iii) Height of Instrument
A2	Enlist various instruments used in chaining and describe any one of them with sketch.
A3	Draw the sectional elevation of a prismatic compass and label the parts of the instrument.
A4	Enlist any three kinds of cements and mention their specific application.
A5	Enumerate various principles of planning.
A6	List the properties of stone used to construct building.
A7	Draw six signatures of traffic signs (symbols).

A8	Recall the term DzWatersheddz , citing an example.
----	--

Understanding based sample questions	
Question No	Question Description
B1	Consolidate your views in the context of Indian economy on the affect of the Dz)mpact ofinfrastructural developmentdz.
B2	State and justify the fundamental principles of surveying with appropriate examples.
B3	a) Detail the process steps to convert <i>Whole Circle Bearing</i> (WCB) to <i>Reduced Bearing</i> (RB) and vice-versa with sketch. b) Convert WCB to RB: ii) 295°      iii) 325°
B4	Recall contour and mention the three uses of contour plan with suitable example.
B5	Conceptualize watershed development, draw appropriate diagram and support with real world examples/practice.
B6	Apply various aids and devices used to control, regulate and guide traffic citing appropriate examples.
B7	What do you understand by load bearing and a framed structure? Clearly spot the advantages with respect to each other and citing due examples.

Application and analysis based sample questions				
Question No	Question Description			
C1	Scenario: In a two road junction crossing, heavy traffic congestion is a constant phenomenon. Give your suggestions to regulate and minimize the traffic congestion.			
C2	Conceptualize a structure for a hilly and earthquake prone zone. Suggest suitable materials to be used to realize/erect such structures and discuss the limitations of the said structures.			
C3	Conceptualize the design of a Check Dam with minimal construction for a village with population less than 7000. Detail critical design parameters specific to selection of Dam location and population.			
C4	It is proposed to record the readings for the purpose of carrying out a boundary survey. The reading recorded by the device is tabled in matrix given below.			
	Line	Fore Bearing (FB)	Back Bearing (BB)	
	AB	20° 32 '	200° 22 '	
	BC	110° 22 '	290° 32 '	

