

1E2409

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B.Tech. I semester (Main) Examination, Dec. - 2018

ESC

1FY3-09 Basic Civil Engg.

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Attempt all five questions from Part A, selecting four questions from Part B and two from Part C. (Schematic diagrams must be shown wherever necessary). Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Part - A

(Short answer questions up to 25 words). All question are compulsory.

(5×2=10)

1. Discuss scope of civil engineering and give any two objects of civil engineering.
2. Write down the formula for tape correction due to - temperature and tape correction for sag.
3. Write down the different units of measurements.
4. Explain in brief the term R.C.C.
5. Define levelling and any one objects of levelling.

Part - B

(Analytical/Problem Solving Questions). Attempt any four question. (4×10=40)

1. Convert the following whole circle Bearing of lines in to quadrantal Bearing system as :
 - i) 35°
 - ii) 115°
 - iii) 210°
 - iv) 315°

RTU paper The following readings were observed with a 4 metre levelling staff and a dumpy level. Calculate the reduced level by Height of Instrument (H.I.) method. Also apply a arithmetical check. The reading given in table as :

STATION	B.S.	I.S	F.S	H.I.	R.L	REMARK
A	3.25				210.00	B.M.
B		3.15				
C		3.25				
D		2.95				
E			2.85			

3. Explain Fundamental principles of surveying upon which the various methods of surveying is based? Explain how will you fix a point C in the field in relation to two points 'A' and 'B' which is already fixed in the filed.
4. What are the various safety measures will you take during accidents, in civil construction and in Traffic.
5. Describe impact of Infrastructural development on economy of country and role of civil engineer in society.
6. Explain Hydrological cycle with neat sketch.

Part - C

(Descriptive/Analytical/Problem Solving/Design Question). Attempt any two question. (2×15=30)

1. Explain various components of buildings along with their functions.
2. State Building Bye laws. Explain various types of buildings along with their functions.
3. Describe Reuse and saving of water. Also explain Rain water harvesting with neat sketch.