

Ref. No. EX/PG/CT/T/113B/2024

M.E. Construction Engineering. 1st Year 1st Semester Examination, 2024

SUBJECT : CONSTRUCTION MANAGEMENT & ESTIMATION OF REPAIR

(50 Marks for each Part)

Time : Three hours

Use separate answer script for each Part

Full Marks: 100

No of Questions	Part I (50 Marks)	Marks
	Answer all questions	
Q1.	What is DISTRESS MAPPING with photographic documentation in repair project, why it is very important to execute a repair/ retrofit job.	10
Q2.	Why PERT is more effective in civil engineering planning to cater uncertainty.	05
Q3.	Define the term WBS in Civil Engineering Project? What are the importance of WBS in Civil Engineering Project?	15
Q4.	Write a short notes on PMM Micro-concrete System Low Viscous Epoxy Grout Sacrificial Anode	20

[Turn over

M.E Construction Engineering 1st year 1st semester Examination – 2024

Subject: Construction Management & Estimation of Repair

Time : Three hours**Full Marks: 100***Part-II(Full Marks-50)**Use separate Answer Sheet for Each Part*

	<p>Answer the following Question $25 \times 1 = 25$ Marks</p> <p>1. After inspection of a building it was seen that 10 number of columns at the ground level had suffered structural damage. Based upon the UPV and Schmidt Hammer readings it was seen that the internal structure of the concrete needed sufficient improvement. Give a list of the various items and their respective estimation of quantities needed for carrying out the retrofitting work of the columns like Grouting, Jacketing and carbon Wrapping.</p> <p>Information regarding the work</p> <ol style="list-style-type: none"> Floor to floor height 3.0m Depth of floor beam 0.45 m Depth of slab 0.150 m Original size of the columns = 300 mm \times 400 mm Size of the columns after jacketing = 500 mm \times 500 mm Jacketing details = 4Nos of 16Tor bars(Longitudinal Reinforcement) & 2legged 8 mm dia Tor bars @ 150 c/c <p>Assume suitable data as considered necessary.</p>
	<p>Write Short notes on any five - $[5 \times 5 = 25]$</p> <ol style="list-style-type: none"> Format of detailed Investigation Report. Sub-heads of work as listed in special items for structural repair work in CPWD Handbook on Repair and Rehabilitation of RCC buildings. Technical specification for propping and supporting. Technical specification for providing temporary steel tubular standard double scaffolding system. Write a general format of a financial disclosure form which is to be included in the pre qualification information while bidding for a repair and rehabilitation project. Letter of Transmittal. Criteria for evaluation of Contractors on the basis of performance on works as per CPWD Handbook on Repair and Rehabilitation of RCC buildings.