

**BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE
(AUTONOMOUS)**

III - B.Tech I-Semester Supplementary Examinations (BR23), Mar/Apr - 2026

CONSTRUCTION TECHNOLOGY & MANAGEMENT (Civil Engineering)

Time: 3 hours

Max. Marks: 70

*Question Paper consists of Part-A and Part-B
Answer ALL the question in Part-A and Part-B*

PART-A (10X2 = 20M)

	Marks	CO	BL
1a) What do you understand by critical path?	(2M)	CO1	BL2
b) What is meant by construction planning?	(2M)	CO1	BL2
c) Explain Cost analysis.	(2M)	CO2	BL2
d) What are common methods to complete large construction projects?	(2M)	CO2	BL2
e) List any three-equipment used in concrete works.	(2M)	CO3	BL1
f) Explain about rear dump trucks.	(2M)	CO3	BL2
g) Write the application of gyratory crushers.	(2M)	CO4	BL2
h) Compare different methods for producing aggregates.	(2M)	CO4	BL2
i) How would you implement cost estimation on a new site?	(2M)	CO5	BL1
j) Discuss briefly about the piling.	(2M)	CO5	BL2

PART-B (5X10 = 50M)

2a. Explain in detail the role of construction project manager on construction project.	5(M)	CO1	BL2
2b. Discuss about monitoring and controlling in project planning.	5(M)	CO1	BL1
(OR)			
3a. Enumerate the steps involved in Construction scheduling of a major project.	10(M)	CO1	BL2
4a. Explain about Project evaluation and review technique with one example?	5(M)	CO2	BL1
4b. Draw a PERT network for the following and find expected mean time, variance and SD of the project			

Activity	Three-time estimates (days)
0-1	2-3-10
0-2	4-5-6
1-2	0-0-0
1-3	6-7-8
1-4	1-5-9
2-5	3-5-19
3-4	0-0-0

5(M) CO2 BL2

(OR)			
5a. Explain the use of PERT	5(M)	CO2	BL2
5b. Explain about Resource Analysis and Resource Allocation.	5(M)	CO2	BL2

6a.	Explain economic life of construction equipment in detail.	5(M)	CO3	BL2
6b.	Write short notes on compaction rollers.	5(M)	CO3	BL2
(OR)				
7a.	Explain excavating equipment. Draw a neat sketch and explain working of any one of excavating equipment.	10(M)	CO3	BL2
8a.	Discuss in detail different factors affecting selection of construction equipment	5(M)	CO4	BL2
8b.	Explain about placing of concrete?	5(M)	CO4	BL2
(OR)				
9a.	Discuss about screening of aggregate.	5(M)	CO4	BL1
9b.	Explain about consolidating and finishing.	5(M)	CO4	BL1
10a.	Explain the different methods of construction.	5(M)	CO5	BL3
10b.	Explain the procedure for pile concreting	5(M)	CO5	BL3
(OR)				
11a.	Write about quality control and safety engineering in construction.	5(M)	CO5	BL2
11b.	Explain the safety precautions to be taken in pile driving and pile concreting.	5(M)	CO5	BL2
