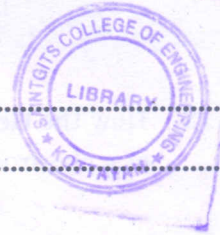


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Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, MAY 2015

Fourth Semester

Branch : Civil Engineering

CE 010 402—CONSTRUCTION ENGINEERING AND MANAGEMENT (CE)

(New Scheme—2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Nominal and design mix of concrete.
2. Spider line cracks in plastering.
3. Optimum moisture content in compaction.
4. Critical path method.
5. Employees State Insurance Act.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Measurement of workability of fresh concrete.
7. Lime and cement plastering.
8. Dynamic compaction.
9. Different types of floats in project management.
10. Role of construction industry in socio-economic conditions.

(5 × 5 = 25 marks)

Part C

Answer all questions.

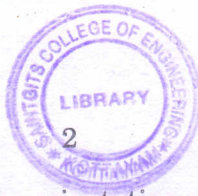
Each question carries 12 marks.

11. Explain different joints in a concrete framed building.

Or

12. What are the methods used for Damp prevention of floors, walls and roofs ?

Turn over



13. How the Geographic location controls the orientation of buildings ? Explain about the orientation of a classroom complex.

Or

14. With neat sketch explain the working of any two large scale each moving equipment.

15. The jobs of a network along with their time estimates are given below. Identify the critical path. What is the expected project length ?

Duration in days	Job	...	1-2	1-3	1-4	2-5	3-5	4-6	5-6
	Optimistic	...	1	1	2	1	2	2	3
	Most likely	...	1	4	2	1	5	3	6
	Pessimistic	...	7	6	8	1	14	10	15

Or

16. The precedence relationships and activities of a project are given below. Draw the CPM network. Tabulate EST, EFT, LST, LFT and floats for each activity.

Activity	...	A	B	C	D	E	F	G	H	I	J	K	L
Preceding	...	—	—	B	A	C	B	F	D, E	E	H	J, I	K, G
Time	...	40	30	15	25	15	25	10	15	15	20	3	3

17. Using the given data Determine the cost duration relationship. Total cost duration relationship. Also draw the least cost network. Project overhead costs are Rs. 1,00,000 per week.

Activity	Normal Duration	Normal cost	Crash Duration	Crash cost
1-2	4	2,00,000	3	3,50,000
1-3	8	2,50,000	7	4,00,000
2-3	5	4,00,000	3	5,00,000

Or

18. Discuss resource allocation, resource smoothing and resource levelling.

19. List the Acts intended for the welfare of workers. Explain any two in detail.

Or

20. Explain about Industrial safety. How state ensures the safety workers.

(5 × 12 = 60 marks)