

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : **14CE2028**
Sub. Name : **Construction Management**

Semester : **2016-17 ODD**
Duration : **3hrs**
Max. marks : **100**

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No	Sub Div.	Questions	Course Outcome	Marks																								
1.	a.	What are the objectives, importance and scope of construction Management?	CO1	10																								
	b.	What is abstract report and detailed project report? Explain in detail the main points in detailed report	CO1	15																								
(OR)																												
2.	a.	Find out the economical material <table border="1"><tr><td></td><td>Material A</td><td>Material B</td></tr><tr><td>Strength</td><td>20000 units</td><td>30000 units</td></tr><tr><td>Cost</td><td>Rs. 4000/tonne</td><td>Rs.4250/tonne</td></tr></table>		Material A	Material B	Strength	20000 units	30000 units	Cost	Rs. 4000/tonne	Rs.4250/tonne	CO1	5															
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	b.	Briefly explain the four analysis involved in feasibility of a project	CO1	15																								
3.	a.	Define break even analysis. What are the advantages and disadvantages in breakeven analysis?	CO1	5																								
	b.	A well planned work is half done. Explain the advantages and stages of planning	CO1	15																								
(OR)																												
4.	a.	The maintenance project of a building consists of 10 activities. The predecessor relationship are identified by their numbers as indicated below. Draw the network diagram for the project. <table border="1"><tr><td>Activity</td><td>Identification</td><td>Activity</td><td>Identification</td></tr><tr><td>P</td><td>(1,2)</td><td>U</td><td>(4,5)</td></tr><tr><td>Q</td><td>(2,3)</td><td>V</td><td>(4,7)</td></tr><tr><td>R</td><td>(2,4)</td><td>W</td><td>(5,8)</td></tr><tr><td>S</td><td>(3,6)</td><td>X</td><td>(6,8)</td></tr><tr><td>T</td><td>(3,5)</td><td>Y</td><td>(7,8)</td></tr></table>	Activity	Identification	Activity	Identification	P	(1,2)	U	(4,5)	Q	(2,3)	V	(4,7)	R	(2,4)	W	(5,8)	S	(3,6)	X	(6,8)	T	(3,5)	Y	(7,8)	CO2	10
	Activity	Identification	Activity	Identification																								
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	b.	‘Specifications define the structure and furnish full project physically and technically’ write briefly its importance and types.	CO2	10																								
5.	a.	The following table lists the activities, durations and their sequence of operation for a construction project. Prepare the network and compute in a table their early start, early finish, late start and late finish times. Determine the critical path and find the total float and free float for all the activities. <table border="1"><tr><td>Activity</td><td>Duration (days)</td><td>Activity</td><td>Duration (days)</td></tr><tr><td>1-2</td><td>8</td><td>4-7</td><td>0</td></tr><tr><td>1-3</td><td>10</td><td>5-6</td><td>4</td></tr><tr><td>1-4</td><td>5</td><td>5-7</td><td>3</td></tr><tr><td>2-7</td><td>6</td><td>5-8</td><td>6</td></tr><tr><td>3-4</td><td>3</td><td>6-8</td><td>5</td></tr></table>	Activity	Duration (days)	Activity	Duration (days)	1-2	8	4-7	0	1-3	10	5-6	4	1-4	5	5-7	3	2-7	6	5-8	6	3-4	3	6-8	5	CO2	20
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3-4	3	6-8	5																									

		4-5	7	7-8	5			
(OR)								
6.	a.	The details of a network is given below where the duration is in days.					CO2	20
		Activity	t _o	t _m	t _p			
		1-2	2	5	8			
		1-3	1	4	7			
		2-3	0	0	0			
		2-4	2	4	6			
		2-6	5	7	12			
		3-4	3	5	10			
		3-5	3	6	9			
		4-5	4	6	10			
		4-6	2	5	8			
		5-6	2	4	6			
		a) Draw the network diagram (3) b) Find the probability of completing the project within 23 days (6) c) Find the critical path (5)						
7.	a.	‘Contract documents for a construction projects is to be developed based on a joint effort by the designer, owner and manager’ – discuss on items to be considered for a typical contract package.					CO 3	10
	b.	Gammon India Properties needs to construct a mall in Coimbatore. As a civil engineer in charge, explain the salient points a tender notice and a tender document should carry.					CO 3	10
(OR)								
8.	a.	Draft a tender notice for the construction of an overhead tank for a hostel complex.					CO 3	5
	b	Give short account about: a) Earnest Money Deposit and Security Deposit b) Legal Obligation of the contract						10
	b.	For establishing a cordial relationship between the owner and the contractor, type of contract selected plays a vital role. Summarize different types of contract.					CO 3	10
		<u>Compulsory:</u>						
9.	a.	Explain importance of safety					CO 3	4
	b.	Explain the safety benefits and the role of various parties in safety management					CO 3	6
	c.	Name any four software used in the field of construction management. Explain the step by step procedure in PRIMAVERA					CO 3	6
	d.	With the help of flowchart, explain the organizational structure of the P.W.D.					CO 3	4

ALL THE BEST

CO1: Manage the resources and labours in the construction

CO2: Plan the construction projects

CO3: Estimate the cost of the projects and evaluate the tenders