

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019**

**Course Code: CE404**

**Course Name: CIVIL ENGINEERING PROJECT MANAGEMENT**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions, each carries 15 marks.*

Marks

- 1 a) Explain the steps involved in realisation of a Construction project. (8)
- b) Write short notes on Resource codes. (7)
- 2 a) What are the advantages of networks over bar charts? (5)
- b) Determine the expected completion time, variance and critical path of the project given below. (10)

Activity	A	B	C	D	E	F	G	H
Predecessors	-	-	A	B	A	C,D	C,D,E	F
T <sub>0</sub> days	2	2	3	4	3	4	3	4
T <sub>L</sub> days	5	6	4	6	5	6	5	8
T <sub>p</sub> days	7	9	9	10	12	13	6	13

- 3 a) Following table shows cost and duration of each activity. The indirect cost is Rs.3150/week. Determine the optimum duration of project and minimum cost. (15)

Activity	Predecessor	Normal Duration (weeks)	Normal Cost (Rs)	Crash Duration (weeks)	Crash Cost (Rs)
A	-	7	8,000	4	15500
B	-	9	5,000	6	9500
C	A	5	7,000	2	10,000
D	A	6	9,000	4	16,000
E	B, C	6	6,000	4	12,000

**PART B**

*Answer any two full questions, each carries 15 marks.*

- 4 a) During a dispute, what are the claims that a contractor can put forward against a client? (7)

- b) Discuss the advantages and disadvantages of arbitration over other methods of settlement of disputes. (8)
- 5 a) What are the various elements that constitute the direct cost of an item/activity in a construction project? How does the direct cost behave as the output volume increases? (7)
- b) Explain the problems encountered in Project Management Information System. (8)
- 6 a) List some of the ethical issues commonly found in civil engineering works. (5)
- b) Elaborate on the role played by professional bodies in ensuring professional ethics. (5)
- c) Describe the components of Project Management Information System. (5)

### PART C

*Answer any two full questions, each carries 20 marks.*

- 7 a) List out the functions of materials management. (5)
- b) Explain economic order of quantity. (5)
- c) Explain the steps involved in classifying items using ABC analysis (10)
- 8 a) Outline any two important types of contracts. (10)
- b) Differentiate between earnest money deposit and security deposit. (5)
- c) Discuss the use of a measurement book. (5)
- 9 a) Explain total quality management. (10)
- b) Discuss the measures to ensure safety in construction. (10)

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