

**B.TECH. SEM -VII (CIVIL) 2014 COURSE (CBCS) : WINTER -
2017**

SUBJECT : ELECTIVE – II : CONSTRUCTION MANAGEMENT

Day : **Monday**
Date : **22/01/2018**

Time **02.30 PM TO 05.30 PM**
Max. Marks : 60

W-2017-2262

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.
- 4) Use of non-programmable **CALCULATOR** is allowed.
- 5) Assume suitable data, if necessary.

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- Q. 1 a)** What are the objectives and role of CIDC? **(05)**
- b)** Enlist the functions of construction management. Elaborate any one of them. **(05)**

OR

- Q.1 a)** Enlist and discuss the qualifications and qualities required to be a successful Construction Manager. **(05)**
- b)** Explain planning and leadership as a function of construction management. **(05)**

- Q. 2 a)** Discuss Net Present Value, Benefit Cost Ratio and Internal Rate of Return with suitable example. **(06)**
- b)** What is feasibility of a project? Discuss the parameters required for preparation of a feasibility report for construction of a tunnel. **(04)**

OR

- Q. 2 a)** Find out the Benefit Cost Ratio for following cash flow. Initial Investment Rs. 120000 and Benefits Rs. 40000 per year for 6 years with rate of interest 12%. **(05)**
- b)** Find present value of Rs. 500000 receivable after 8 years if the rate of interest is 10% and 12% **(05)**

- Q. 3 a)** Solve the Assignment Problem by Hungarian Method for minimization **(08)**

Jobs	Machines				
	1	2	3	4	5
A	2	9	2	7	1
B	6	8	7	6	1
C	4	6	5	3	1
D	4	2	7	3	1
E	5	3	9	5	1

- b)** Explain payoff matrix. **(02)**

P. T. O.

OR

Q. 3 Solve the following Transportation Problem by VAM **(10)**

Warehouse	Store				Supply
	S1	S2	S3	S4	
A	10	6	8	8	44
B	9	9	11	10	25
C	10	8	8	7	22
D	11	8	11	10	29
Demand	31	35	27	35	

Q.4 a) What is Artificial Intelligence? Write its applications in Construction Management. **(07)**

b) Differentiate between biological neuron and artificial neuron **(03)**

OR

Q. 4 What is forward and backward propagation in ANN? **(10)**

Q. 5 Give the salient features of Workmans Compensation Act and Payment of Wages Act. **(10)**

OR

Q.5 a) Give the necessity and importance of Labour Laws. **(05)**

b) What are the salient features of Minimum Wages Act? **(05)**

Q.6 a) What are the roles of different parties in Safety Management? **(04)**

b) Prepare a site layout for construction of a 1.5km long tunnel. **(06)**

OR

Q. 6 a) Prepare a site layout for construction of a underground Metro Rail station. **(06)**

b) Enlist the different protective equipments used during demolition of a 5 storeyed RCC building. **(04)**

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