Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

(A constituent institution of MAHE, Manipal)

II SEMESTER M.TECH. (CONSTRUCTION ENGINEERIGN & MANAGEMENT)
END SEMESTER EXAMINATIONS, APRIL/MAY 2018
SUBJECT: CONSTRUCTION MATERIALS MANAGEMENT [CIE 5232]
REVISED CREDIT SYSTEM
(/ 04/ 2018)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer ALL the questions.
- Answer to the point.

1A.	Write note on (i) Brisch Sytem of coding (ii) M-series of preferred numbers.	**06**
1B.	What is an Inventory? What is its importance in Material Management	**04**
2A.	Explain Weighted point plan for material source appraisal.	**05**
2B.	Write note on Ordering System and Post Purchase System	**05**
3.	Time series for 2 years prices of cement/bag are given below. Show which of the following methods is better for forecasting prices (i) Moving Average method with N=5 (ii) Weighted Moving Average method with w_i = 0.1,0.3.0.3,0.2,0.1 Yl: 315,309,261,280,296,306,312,298,264, 312,300, 307 Y2: 272, 259, 278, 302, 255, 283,260,283, 256, 287,308, 302	**10**
4.	Using Internal Return of Rates method decide which of the following two equipments is economically profitable with rat 6%	**10**
5.	20,000 m^3 of coarse aggregate has to be provided for a RCC work of a project scheduled for 600 days. The unit cost of coarse aggregate at given site is Rs.300. Ordering cost is Rs.l00 per order and Carrying cost is 5% of unit cost. The Standard deviation of demand is estimated at 4000 m^3 and Reliability Coefficient k= 1.65. The average lead time is 3 days and maximum lead time with probability of 45% is 6 days. Compute 5 cycles of Q-System.	**10**

Investment	Capital Investment (Lakhs INR)	Gross Annual Returns, for respective years of Life equipment (Lakhs INR)	Annual Deductions for respective years for Life of Equipment (Lakhs INR)	Life of Equipment	Solvage Value
A	85	40,41,39,38,40, 38.5,39.5,37	25,23,25,25,24,22,23,22	8	10%
B	68	28,29,27,30,27	13,14,13,14,14,	5	10%

Cycle	Daily Consumption	Lead Time
1	35	3
2	40	5
3	50	6
4	36	4
5	40	5