BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: BARCH **SEMESTER: IX/ADD.**
BRANCH: ARCH **SESSION : MO/2018**

SUBJECT : AR9103 CONSTRUCTION MANAGEMENT

TIME: 1.5 HOURS **FULL MARKS: 25**

INSTRUCTIONS:
1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

Q1 (a) Define project management. [2]
(b) Based on the new concept of financing, discuss the classification of projects. [3]

Q2 (a) Define the role of project manager. [2]
(b) Elaborate the various stages of project management with the help of flow chart. [3]

Q3 (a) What are the limitations of Bar Chart Technique? [2]
(b) Write the "Networking" and "event numbering" rules. [3]

Q4 (a) Develop the bar chart end estimate the project completion time. Divide the whole project into five equal phases and hence derive the cost histograms [5]

Activity	Duration (Days)	% Age Cost	Inter - Relation
A	6	18	Starting Activity
B	11	22	Can start after half completion of A
C	3	12	Start after A
D	10	30	Can overlap last 3 days of B
E	6	6	Can start after half completion of D
F	4	12	Start after D

Q5 (a) What do you mean by a dummy activity? Why it is used in networking? [2]
(b) Define Total Float, Free Float, Independent Float and Interfering Float along with its mathematical expression. [3]

Q6 (a) The project has the following activities and characteristics: [3+2]
(i) Draw the CPM network, Critical path and the project duration.
(ii) Calculate the all four types of floats for all non-critical activities.

Activity	Immediate Successor	Duration (Days)
A	B, C, F	4
B	G, D	12
C	E	8
D	F	2
E	H	14
F	H	4
G	-	6
H	-	11

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