CLASS: BARCH   SEMESTER: IX
BRANCH: ARCHITECTURE   SESSION : MO/2019

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 the term 'construction management'.   [2]
      (b)   Discuss briefly the various phases of project life cycle.   [3]

Q2   (a)   Based on the concept of ownership, discuss the classification of projects?   [2]
      (b)   Discuss 'any three' types the project feasibility.   [3]

Q3   (a)   Write the "Networking" and "event numbering" rules.   [2]
      (b)   Discuss 'any three' errors in the network of   project   [3]

Q4   (a)   What are the limitations of bar-chart technique?   [2]
      (b)   Draw the Bar Chart diagram for a project whose activity and durations are as follows: [3]

ACTIVITY	DURATION (Days)	REMARKS
P	10	Starting activity
Q	5	Do
R	10	Can start after completion of Q
S	7	Can start after 3 days of Q
T	5	Totally depends upon S
U	8	Should start with R depend fully on Q
V	15	Totally dependent on P & S

Calculate the following:
 (i) The project completion time (ii) After 2- week which activities has to be fully completed?

Q5   (a)   Define Total Float and Independent Float along with its mathematical expression.   [2]
      (b)   Differentiate between (i) Float and Slack, (ii) Event and Activity, (iii) Dummy Activity   [3]
            and Critical Activity. Give relevant examples.

Q6   A project is divided into following activities as per the table below.

Activity	Immediate Predecessor Activity	Duration (Days)	Activity	Immediate Predecessor Activity	Duration (Days)
A	-	2	F	B	7
B	A	5	G	C, E	11
C	A	7	H	D	8
D	A	10	I	F, G, H	7
E	B	5	J	H	5

      (a)   Construct the CPM network and identify the critical path.   [3]
      (b)   Find the 'Total float' of non-critical activities.   [2]

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