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Total Number of Pages : 02

M.Tech
P1CTBC04

1st Semester Regular/Back Examination 2019-20
PROJECT PLANNING AND MANAGEMENT
BRANCH : CONSTRUCTION TECH. AND MANAGEMENT

Max Marks : 100

Time : 3 Hours

Q.CODE : HRB731

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)

- a) Why is schedule updating needed for construction projects?
- b) Give a practical example for Start to Start relationship only.
- c) Define a fast-track operation.
- d) What does the term degressing a schedule mean?
- e) Explain the term '*contractor created float*'.
- f) Which claims can be considered as contractual in nature?
- g) What is meant by VED analysis?
- h) List out the factors involved in selecting a project team?
- i) Differentiate between float and slack.
- j) How do you classify different inventory systems?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- a) Create a WBS for building a house. Use four levels of details and provide activity codes for each breakdown element.
- b) For the following schedule, draw the node network, perform the CPM calculations, mark the critical path.

c)	Activity	A	B	C	D	E	F
	Duration	5	6	4	5	3	2
	IPA	-	A	A	A	B	C,B

- d) Mention an example for each of the following:
 - i. Start-restricted float
 - ii. Finish restricted float
- e) Are the terms project monitoring and project tracking equivalent to project control. Explain
- f) Can the critical path in a project change during the life of the project? How can such a thing happen? Give example.
- g) Why are inventory models needed? Discuss EOQ model?
- h) Describe the various dispute resolution mechanisms adopted by construction industry.
- i) Discuss different inventory control policies.
- j) Explain benefits of computerized information system in project management.
- k) What is the main reason for the over use of date constraints? How do you minimize such overuse?
- l) Describe various dispute resolution mechanisms adopted by construction industry.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3 What is an updated schedule? What are the steps involved in updating a schedule? When you are updating a project, an activity may be added or deleted, what are the mishaps that may occur and how do you avoid them? **(16)**

Q4 For the activity table given in below table, find the expected time for completion of project with 84.1% probability. **(16)**

Activity	Estimated activity duration		
	T_o	T_m	T_p
1-2	3	6	15
1-6	2	5	14
2-3	6	12	30
2-4	2	5	8
3-5	5	11	17
4-5	3	6	15
6-7	3	9	27
5-8	1	4	7
7-8	4	19	28

Q5 Draw the network for data given in below table, pertaining to small construction project. Compute the event times for all activities. Find out critical path. Also calculate the three floats for the non critical activities. **(16)**

Activity	Duration(weeks)	Depends upon
A	4	--
B	2	A
C	2	A,B,F
D	2	C,L
E	6	D,G,H
F	2	A
G	2	F
H	3	G,L
K	5	A
L	3	F,K

Q6 Claims are inevitable in construction contracts, Discuss the different aspects of successful claims management systems for a contractor. How will you differentiate claims that occur in the construction business? **(16)**