Tertiary and Vocational Education Commission

NVQ Level 05 – Semester II

Construction Technology

Construction Planning	F45C001M08	Three Hours

Answers ANY FOUR questions FROM QUESTION NO 1 TO 5 AND QUESTION NO 06 IS COMPULSORY

Question-01

1. What do you mean by planning? (05 Marks)
2. Define the meaning of construction planning. (05 Marks)
3. State that the objectives of planning. (05 Marks)
4. What are the types of project plans? (05Marks)

Question-02

1. Draw a typical site layout plan for building construction site? (06 Marks)
2. Draw a typical organization structure for a small scale construction industry? (06 Marks)
3. Explain the importance of having "work break down" (WBD) structure for a construction project? (08 Marks)

Question-03

1. Define the types of labeling approach? (05 Marks)
2. Defining precedence relationship among activities? (05Marks)
3. Express your ideas about the site safety. (05 Marks)
4. Explain the differences between of "activity direct cost and activity indirect cost" (05Marks)

Question-04

1. Define the following terms:
    a. Critical path
    b. Dummy activity (06Marks)
2. What do you mean by the significance of critical path? (06 Marks)

3. Differentiate the following terms,
    a. EST (Earliest Start Time)
    b. LST (Latest Start Time)
    c. EFT (Earliest Finish Time
    d. LFT (Latest Finish Time) (08 Marks)

Question-05

1. What are the classifications of networks? (04 Marks)
2. Define the following terms,
    a. Float
    b. Total Float (04 Marks)
3. What is mean by the resource levelling and crashing? (04 Marks)
4. Define the following terms,
    a. Normal cost
    b. Normal time
    c. Crash time
    d. Crash cost
    e. Activity cost slope (08 Marks)

Question-06 *(Compulsory Question)*

1.

a. Draw activity on arrow diagram for the details given below in "Table Q6-01". (05 Marks)

b. Tabulate Early Stat Time (EST), Late Stat Time (LST), Early finish Time (EFT) and Late Finish Time (LFT) for each activity. (05 Marks)

Activity	Predecessors	Duration
A	-	6
B	A	7
C	A	1
D	-	14
E	B	5
F	C,D	8
G	C,D	9
H	D	3
I	H	5
J	F	3
K	E,J	4
L	F	12
M	G,I	6
N	G,I	2
O	L,N	7

Table Q6-01

2. The network of a construction project is shown in “Figure Q6-01” with the estimated durations of various activities. Determine the followings,
   I. Earliest and latest activity time
   II. Total float for each activity
   III. Critical path for the network. (10 Marks)

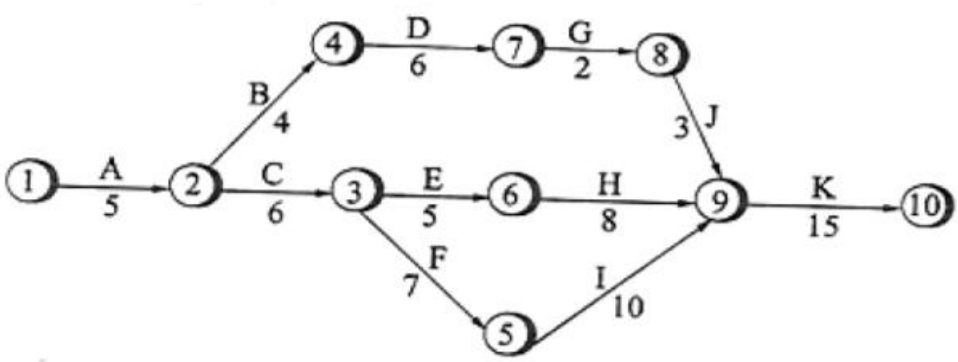

Figure Q6-01