MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2015/2016

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF EDUCATION IN PLANNING AND ECONOMICS OF EDUCATION

MAIN CAMPUS

EMA 845: MICRO (PROJECT) PLANNING IN EDUCATION

Date: 28th April, 2016 Time: 2.00 - 5.00 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.

EMA 845: MICRO (PROJECT) PLANNING IN EDUCATION.

DATE---------- TIME----------

INSTRUCTION:

ANSWER THREE QUESTIONS: QUESTION ONE IS COMPULSARY

Q1.You are considering the decision of whether or not to crash your project. After asking your operations manager to conduct an analysis, you have determined the "pre-crash" and "post-crash" activity durations and costs, shown in the table below:

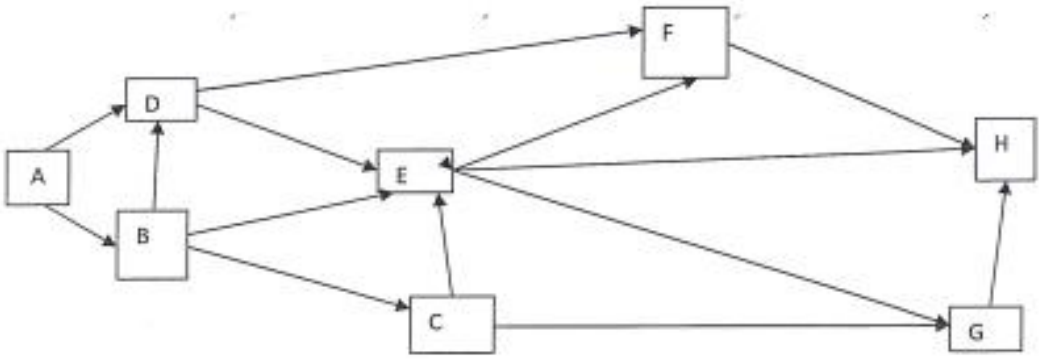
	Normal		Crashed	
Activity	Duration	Cost	Duration	Cost
A	4 days	$1,000	3 days	$2,000
B	5 days	$2,500	3 days	$5,000
C	3 days	$750	2 days	$1,200
D	7 days	$3,500	5 days	$5,000
E	2 days	$500	1 day	$2,000
F	5 days	$2,000	4 days	$3,000
G	9 days	$4,500	7 days	$6,300

a. Calculate the per day costs for crashing each activity

b. Calculate project costs by project duration.

c. At what point does it no longer make "cost sense" to continue crashing activities? Why? Show your graph.

Q2. Consider The Diagram Below. Re-draw the diagram by inserting activity times. Find the critical path and float time given the following additional information. (20marks)



AD = 3DAYS, AB = 4 Days, BD = 5 DAYS, DF = 9 DAYS, DE = 7 DAYS, BE = 8 Days

BC = 5 DAYS, CE = 6 DAYS, CG = 4 DAYS, EG =, EH = 3DAYS, EF = 10 DAYS,FH =3 DAYS, GH = 5 DAYS

Q3. Consider the activities shown below for the construction of a garage

ACTIVITY	DURATION
Prepare foundation	7
Make and position door frame	2
Lay drains, floor base and screed	15
Install services and fittings	8
Erect Walls	10
Plaster ceiling	2
Erect roof	5
Install Door and Windows	8
Fit Gutters and pipes	2
Paint outside	3

a) Draw the path for the activities (6marks)
b) Formulate a table for backward and forward activities to determine float time and critical path.(14 marks)

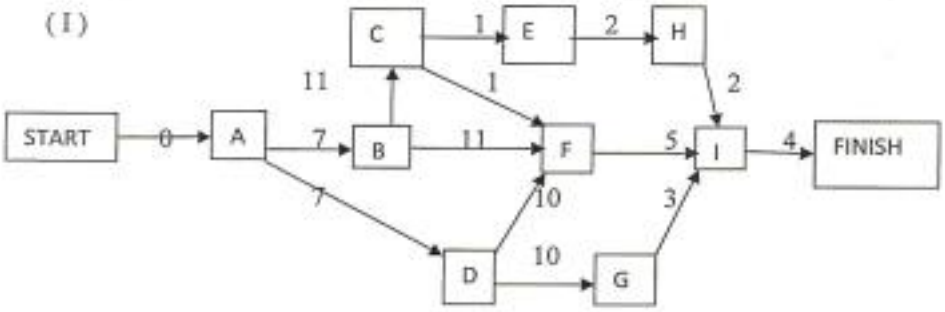
Q4. (a) Discuss the Advantages and disadvantages of Program Evaluation and Review Technique (10 marks)

(b) Discuss the importance of sometimes crushing a project (5marks)

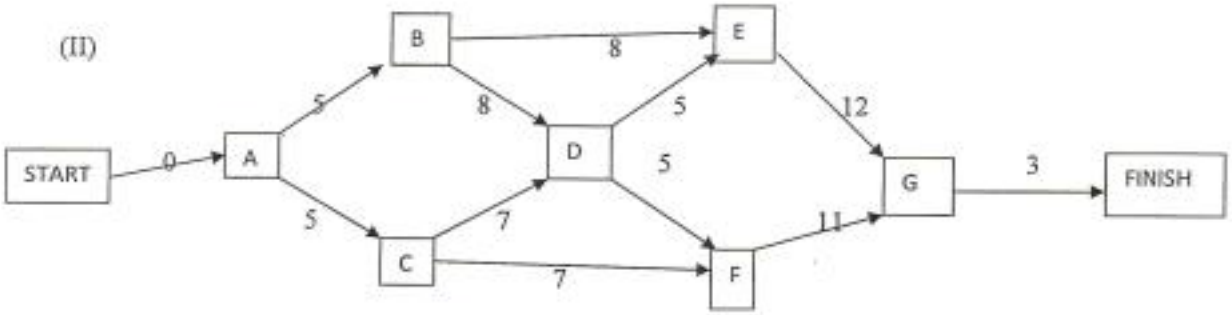
(C) Discuss the importance of critical path in project management (5 marks)

Q5. Advise the project manager on the critical path to be followed to successfully complete the following projects. Which paths should be avoided and why? (20 marks)

(I)



(II)



(III)