Roll No.													

PRESIDENCY UNIVERSITY
BENGALURU
SCHOOL OF MANAGEMENT

MID TERM EXAMINATIONS

Sem & AY: Odd Sem. 2019-20
Course Code: OPS 202
Course Name: PROJECT MANAGEMENT
Program & Sem: MBA & III

Date: 17.10.2019
Time: 01:30PM to 03:00PM
Max Marks: 40
Weightage: 20%

Instructions:

i. Answer all the questions in each part.

Part A [Memory Recall Questions]

Answer all the Questions. Each Question carries two marks. **(3Qx2M=6M)**

1. State any four roles of Project Manager? (C.O.NO.1)[Knowledge]
2. List the four stages of Project Life Cycle. (C.O.NO.1)[Knowledge]
3. Describe any two determinants of project success. (C.O.NO.1)[Knowledge]

Part B [Thought Provoking Questions]

Answer all the Questions. Each Question carries four marks. **(5Qx4M=20M)**

4. Explain Project Scope Management and list the six sections as per PMBOK (C.O.NO.2) [Comprehension]
5. Distinguish between AOA and AON project network diagrams. (C.O.NO.2) [Comprehension]
6. Discuss the ITTO of Monitor and Control Project Work. (C.O.NO.2) [Comprehension]
7. Explain WBS with suitable examples. (C.O.NO.2) [Comprehension]
8. Discuss the ITTO of Project Charter. (C.O.NO.2) [Comprehension]

Part C [Problem Solving Questions]

Answer both the Question. Each Question carries seven marks. **(2Qx7M=14M)**

Case Study: PQR Enterprise offers various services on Project Management. It helps in planning projects and organizing various resources necessary to manage the projects. PQR Enterprise has been provided with a task of analyzing the project duration of a new systems installation project for a design firm. The project has 7 activities. The activities along with description of p-activities and duration of each activity is shown in below.

SNo.	Activity	p-activity	Duration (days)
1	A	--	10
2	B	A	7
3	C	A	8
4	D	B	20
5	E	C	10
6	F	D, E	5
7	G	F	10

9. a) Sketch the project network diagram and compute the EST and LCT for each activity. [6M]

   b) Interpret the total project completion time. [1M]

10. a) Choose the critical activities using Floats [5M]

    b) Show the critical path. [2M]

(C.O.NO.3)[Application]

SCHOOL OF MANAGEMENT

Semester: Odd Sem 2019-20
Course Code: OPS202
Course Name: Project Management

Date: 17/10/2019
Time: 01.30 PM to 03.30 PM
Max Marks: 40
Weightage: 20%

Extract of question distribution [outcome wise & level wise]

Q.NO.	C.O.NO	Unit/Module Number/Unit /Module Title	Memory recall type [Marks allotted] Bloom's Levels			Thought provoking type [Marks allotted] Bloom's Levels			Problem Solving type [Marks allotted]			Total Marks
			K			C			A			
1	CO1	Module 1	2									2
2	CO1	Module 1	2									2
3	CO1	Module 1	2									2
4	CO2	Module 2				4						4
5	CO2	Module 2				4						4
6	CO2	Module 2				4						4
7	CO2	Module 2				4						4
8	CO2	Module 2				4						4
9	CO3	Module 3							6	1		7
10	CO3	Module 3							5	2		7
	Total Marks		6			20			11	3		**40**

K =Knowledge Level C = Comprehension Level, A = Application Level

Note: While setting all types of questions the general guideline is that about 60% Of the questions must be such that even a below average students must be able to attempt, About 20% of the questions must be such that only above average students must be able to attempt and finally 20% of the questions must be such that only the bright students must be able to attempt.

{I hereby certify that all the questions are set as per the above guidelines.Dr. Anil B Gowda}

Reviewer's Comments:

Annexure- II: Format of Answer Scheme

SCHOOL OF MANAGEMENT

SOLUTION

Semester: 3

Course Code: OPS202

Course Name: Project Management

Date: 17/10/2019

Time: 01.30 PM to 03.00 PM

Max Marks: 40

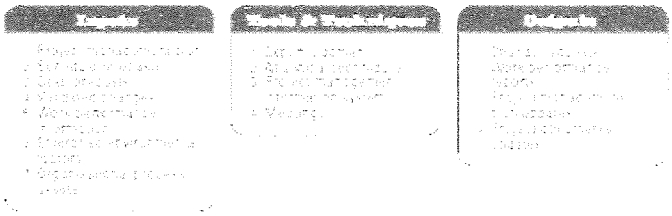
Weightage: 20%

Part A (3Q x 2M = 6Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
1	Any four roles from the following could be stated. Planning and defining Scope; Planning resources; Selecting a team; Developing project objectives and Strategies; Performing risk management activities; Cost estimating and budgeting; Scheduling and Controlling; Business Partnering; Vendor Management.	0.5x4=2	4.50 min
2	Four stages of Project Life Cycle are : (1) Initiation (Conceptualization) (2) Planning (Development) (3) Execution (Monitor and Control) (3) Closure (Termination)	0.5x4=2	4.50 min
3	Any two of the following determinants: Time- projects are constrained by specified time frame during which they must be completed. Cost – projects must meet budgeted allowances in order to use resources as efficiently as possible. Performance – measuring performance means determining whether the finished product operates according to specifications.	2x1=2	4.50 min

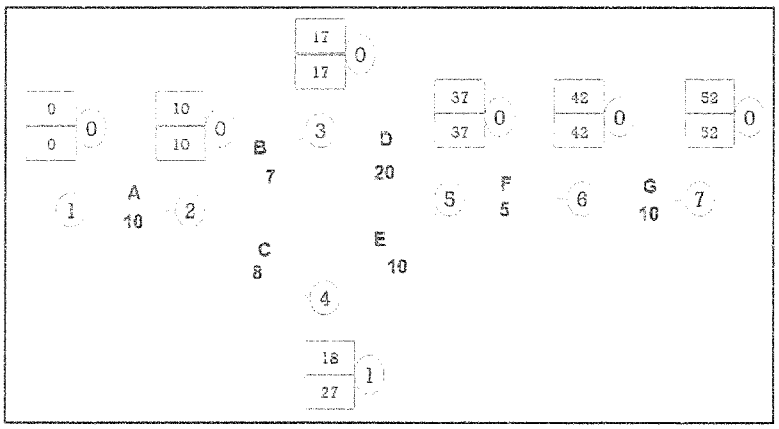
Part B (5Q x 4M = 20Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
4	Project Scope Management consist of naming all activities to be performed, the resources consumed, and the end products that result, including quality standards. Scope includes a projects Goal, Constraints and Limitations. Elements of Project Scope Management are: Conceptual Development, Scope Statement, Work Authorization, Scope Reporting, Control Systems and Project Closeout.	2+2=4	9 min

	Six sections as per PMBOK are: 5.1-Plan Scope Management: 5.2-Collect Requirements; 5.3- Define Scope; 5.4-Create WBS; 5.5- Validate Scope; 5.6- Control Scope.		
5	AOA- is a project network diagram where an Activity is indicated by an Arrow. Two ends of the arrow or activity are indicated by means of circle known as event nodes. Give any day to day example to indicate AOA. AON- is a project network diagram where an Activity is indicated by a circle. Activities are shown in nodes. Events are the arrows. Give any day to day examples to indicate AON.	2+2=4	9 12 min
6	ITTO of Monitor and Control: It is the process of tracking, reviewing and reporting the progress to meet the performance objectives defined in the project management plan. The key benefit of this process is that it allows stakeholders to understand the current state of the project, the steps taken and budget, schedule and scope forecasts. 	2+2=4	9 12 min
7	WBS: According to PMBOK, a WBS is a process that sets a project scope by breaking down its overall mission into a cohesive set of synchronous, increasingly specific tasks arranged in descending order. Each descending level represents an increasingly detailed definition of Products or Services. WBS – Main purpose: a) It is focused on project objectives b) It is organisation chart for projects c) It creates the logic for tracking costs, schedule and performance of each element. d) It is used to communicate project status. e) It is used to improve overall project communication. f) It demonstrates how projects will be controlled.	2+2=4	9 12 min

8	ITTO of Project Charter: It is the process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. The key benefit of this process is a well-defined project start and project boundaries, creation of a formal record of the project and a direct way for senior management to formally accept and commit to the project.  	2+2=4	9 min

Part C (2Q x 7M = 14Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
9 a	Project Network Diagram is shown below. EST1=0 (start time) EST2=EST1+DA=0+10=10days Similarly, other ESTs are calculated and the values are shown in the diagram. LCT7 = EST 7= 52 days LCT6 =LCT7-DG = 52-10=42 days Similarly, other LCTs are calculated and values shown in diagram.  	3+3=6	13.5 min
9 b	Total Project Completion time is the EST of last node 7. EST of 7 = 52 days. Therefore, Project Completion time = 52 days	1	2.25 min

<table>
<tr>
<td>10 a</td>
<td>Float Calculation shown in Table.
<table>
<tr><th>SN</th><th>Activity</th><th>FF</th><th>TF</th><th>IF</th><th>Critical / Non-Critical</th></tr>
<tr><td>1</td><td>A</td><td>0</td><td>0</td><td>0</td><td>Critical</td></tr>
<tr><td>2</td><td>B</td><td>0</td><td>0</td><td>0</td><td>Critical</td></tr>
<tr><td>3</td><td>C</td><td>0</td><td>9</td><td>0</td><td>Non-Critical</td></tr>
<tr><td>4</td><td>D</td><td>0</td><td>0</td><td>0</td><td>Critical</td></tr>
<tr><td>5</td><td>E</td><td>9</td><td>9</td><td>8</td><td>Non-Critical</td></tr>
<tr><td>6</td><td>F</td><td>0</td><td>0</td><td>0</td><td>Critical</td></tr>
<tr><td>7</td><td>G</td><td>0</td><td>0</td><td>0</td><td>Critical</td></tr>
</table>
.</td>
<td>5</td>
<td>~~5~~ min
11.25</td>
</tr>
<tr>
<td>10 b</td>
<td>Critical Path is A – B – D – F – G .
Indicate double line or thick line on the network diagram to mark critical path.</td>
<td>2</td>
<td>~~6~~ min
4.5</td>
</tr>
</table>

Roll No.												

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF MANAGEMENT

END TERM FINAL EXAMINATION

Semester: Odd Semester 2019-20 | **Date**: 23 December 2019

Course Code: OPS 202 | **Time**: 1:00 PM to 4:00 PM

Course Name: PROJECT MANAGEMENT | **Max Marks**: 80

Program & Sem: MBA & III | **Weightage**: 40%

Instructions:

(i) Answer all questions given in each part.

Part A [Memory Recall Questions]

Answer all the sub-Questions. Each sub Question carries 4 marks. (5Qx4M=20M)

1. a) List 2 advantages of Earned Value Management (EVM). (C.O.No.4)[Knowledge]
   b) List the four sections of Project Cost as per PMBOK. (C.O.No.3)[Knowledge]
   c) Identify any four methods used for best choice in MCDM. (C.O.No.2)[Knowledge]
   d) State the tools and techniques for Close Project. (C.O.No.5)[Knowledge]
   e) Mention any 4 purposes of WBS. (C.O.No.1)[Knowledge]

Part B [Thought Provoking Questions]

Answer all the Questions. Each Question carries 6 marks. (5Qx6M=30M)

2. Write short notes on Scope Management. (C.O.No.1)[Comprehension]
3. Discuss ITTO of Plan Communication Management as per PMBOK (C.O.No.5)[Comprehension]
4. Construct a project network diagram using AOA notation and estimate project completion time: (C.O.No.3)[Comprehension]

#	Activity	P-Activity	Duration (months)
1	A	-	2
2	B	A	1
3	C	B	3
4	D	B	2
5	E	C	1
6	F	D,E	4

5. Classify the various Risks in Project Management and explain each?
(C.O.No.4)[Comprehension]

6. Explain the time cost tradeoff in crashing of project. What will be the influence of indirect cost and penalty cost on the total project cost while crashing?
(C.O.No.3)[Comprehension]

Part C [Problem Solving Questions]

Answer both the Questions. **(2Q=30M)**

7. Interpret the terms Predecessors, Successor, Merge activities, Burst activities and Node with the help of a sketch of Project network. (10M) (C.O.No.3)[Application]

8. A Project consists of 7 activities. The details of the activities in terms of normal cost, crash cost per week, normal duration and permitted crash is provided in the following table.
(20M) (C.O.No.3&4)[Knowledge, Application]

SN	Activity	P-Activity	Normal Duration (weeks)	Normal Cost ($100)	Crash permitted (weeks)	Crash cost per week ($100)
1	A	--	7	4	1	11
2	B	A	2	8	0	5
3	C	A	4	4	1	5
4	D	B	8	9	0	6
5	E	C	4	4	2	4
6	F	D,E	4	6	1	7
7	G	F	2	8	0	8

a) Sketch a neat network diagram to indicate activities and nodes.
b) Compute the normal project duration and normal project cost.
c) Demonstrate sample calculation of EST, LCT, Slack and Floats.
d) Compute the Crashed project duration and Crashed project cost.

SCHOOL OF MANAGEMENT

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

Semester: Odd Sem 2019-20
Course Code: OPS202
Course Name: Project Management

Date: 23 December 2019
Time: 1:00PM to 4:00 PM
Max Marks: 80
Weightage: 40%

Extract of question distribution [outcome wise & level wise]

Q. NO.	C.O.NO	Unit/Module Number /Unit /Module Title	Memory recall type [Marks allotted] Bloom's Levels					Thought provoking type [Marks allotted] Bloom's Levels			Problem Solving type [Marks allotted]			Total Marks
			K					C			A			
1	1,2,3, 4,5	1,2,3,4, 5	4	4	4	4	4							20
2	1	1							6					6
3	5	5							6					6
4	3	3							6					6
5	4	4							6					6
6	3	3							6					6
7	3	3										10		10
8	4	4	2	3	2	3						10		20
	Total Marks		6	7	6	7	4		30			20		**80**

K =Knowledge Level C = Comprehension Level, A = Application Level

Note: While setting all types of questions the general guideline is that about 60%

Of the questions must be such that even a below average students must be able to attempt, About 20% of the questions must be such that only above average students must be able to attempt and finally 20% of the questions must be such that only the bright students must be able to attempt.

I hereby certify that all the questions are set as per the above guidelines.

Name of faculty: Dr Anil B Gowda
Associate Professor (SOM)
14/12/19

Reviewer's Comments:

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF MANAGEMENT SET 2

ENDTERM FINAL EXAMINATION

Semester: Odd Semester 2019-20
Course Code: OPS 202
Course Name: Project Management
Program & Sem: MBA III SEM

Date: 23 December 2019
Time: 1:00 PM to 4:00 PM
Max Marks: 80
Weightage: 40%

Part A (5Q x 4M = 20Marks)

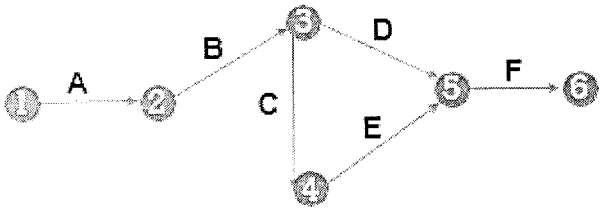
Q No	Solution	Scheme of Marking	Course Outcome No. as per the Handout	Bloom's Level	Learning Objective No. as per Handout	Max. Time required for each Question
1	a) **Time- projects are constrained by specified time frame during which they must be completed. Cost – projects must meet budgeted allowances in order to use resources as efficiently as possible. Performance – measuring performance means determining whether the finished product operates according to specifications.**	4	CO4	Knowledge		9
	b) Project cost (PMBOK) 7.1) Plan cost management, 7.2) Estimate cost, 7.3) Determine Budget, 7.4) Control Costs	4	CO3			9
	c) SAW (Simple Additive Weights) TOPSIS (Technique for Order Preference by similarity to ideal solution), AHP (Analytic Hierarchy Process), ANP (Analytic network Process).	4	CO2			9
	d) Tools and techniques for Project Close: Expert judgment, Analytical techniques, meetings.	4	CO5			9

	e) Four purpose of WBS: It is focused on project objectives, it is organization chart for projects, creates the logic or tracking and schedule etc., it is used to improve overall project communication.	4	CO1			9

Part B

(5Q x 6M = 30Marks)

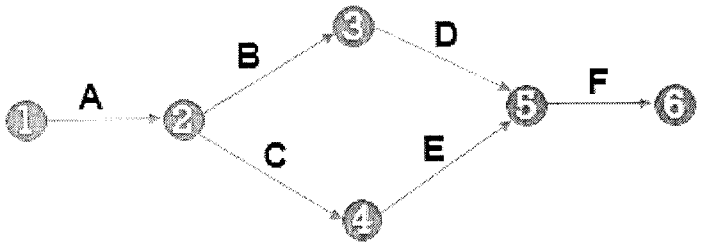
Q No	Solution	Scheme of Marking	Course Outcome No. as per the Handout	Bloom's Level	Learning Objective No. as per Handout	Max. Time required for each Question
2	Scope Management: **Scope Management consist of naming all activities to be performed, the resources consumed, and the end products that result, including quality standards. Scope includes a projects Goal, Constraints and Limitations. Elements of Project Scope Management are: Conceptual Development, Scope Statement, Work Authorization, Scope Reporting, Control Systems, and Project Closeout.**	6	CO1	Comprehension		13.5

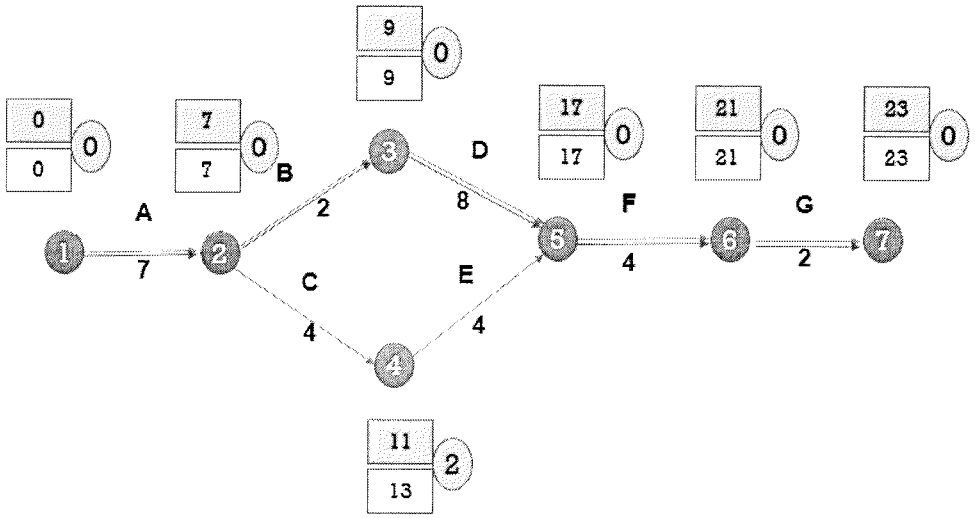
3	Section 10.1 - Plan communications Management: The process of developing an appropriate approach and plan for project communications based on stakeholder's information needs and requirements, and available organizational assets. **Inputs** .1 Project management plan .2 Stakeholder register .3 Enterprise environmental factors .4 Organizational process assets **Tools & Techniques** .1 Communication requirements analysis .2 Communication technology .3 Communication models .4 Communication methods .5 Meetings **Outputs** .1 Communications management plan .2 Project documents updates	6	CO5	Comprehension		13.5
4	 **Forward pass computation for EST to be shown for sample along with LCT backward pass.** **Project completion time = 11 months**	6	CO3	Comprehension		13.5
5	1. Financial Risk : It refers to financial exposure a firm opens itself to when developing a project. It refers to large upfront capital investment. 2. Technical Risk : It refers to unique technology being developed for the project. It may be high or low depending on the technicalities involved. 3. Commercial Risk : It refers to uncertainty that companies may willingly accept in prediting customer acceptance of a new product. 4. Execution Risk : It refers to specific unknowns related to project execution.	6	CO4	Comprehension		13.5

	5. Legal Risk : It is with projects in which strict terms and conditions are drawn in advance in order to control the project.					
6	Normal Cost : It is the total cost of all the costs associated with each activity. Normal cost refers to the cost of completing a project in the normal course of execution. Crash Cost: It is the cost associated with the activity related to its crashing. Crash cost is the increased cost because of additional resources deployed to reduce the duration of activity. By crashing a project the duration of the project is reduced thereby the project cost increases. Time cost tradeoff: As time decreases with crashing, the crash cost increases the project cost. However tthere are indirect cost and penaly cost which decreases. A plot of all the factors is caleed the time cost tradefoff chart. Explain the influence of indirect cost and penalty cost in the form of a cost curve that is decreasing compare to the cost curve increase in crashing the project. Sketch the details.	6	CO3	Comprehension		13.5

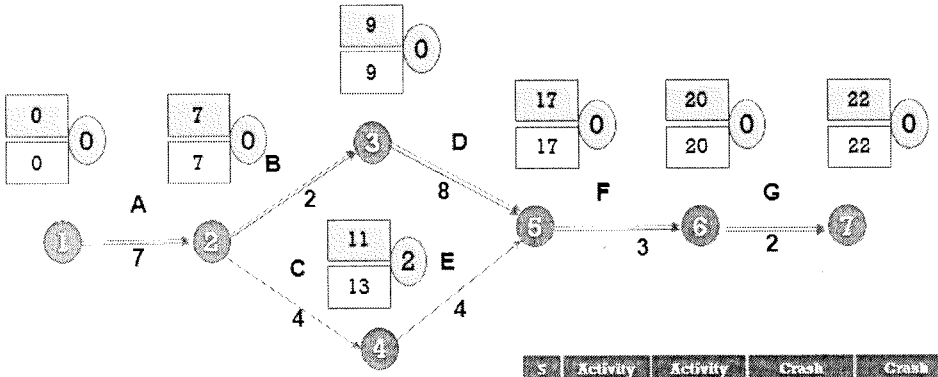
PART C

(10Q + 20M = 30Marks)

Q No	Solution	Scheme of Marking	Course Outcome No. as per the Handout	Bloom's Level	Learning Objective No. as per Handout	Max. Time required for each Question
7	 Predecessor activity : an activity upon whose completion the next activity commences. Ex A is predecessor of Activity B and also activity C. Successor activity : An activity that commences upon completion of an activity immediately. Activity f is the successor of activities D and E. Merge : When activities meet at a point / node as in diagram activities D and E. Burst : when activities commences from a node as in diagram activities B and C. Node : the end points of an activity is the node. Tail node and head node. Tail indicates start and head indicates finish point of the activity. For activity E, node 4 is tail and node 5 is head.	10	CO3	Analysis		22.5

8	a)  b) Normal Project Duration : 23 wks Normal Project Cost : 43x $100 = $ 4300 c) EST2 = EST1 + Da = 0+7=7 LCT6 = LCT7-Dg=23-2=21 Slack of node 4 = 13-11=2 Activity B: FF=9-7-2=0; TF = 9-7-2=0; IF=0-0=0	10 2 3	CO4	Analysis		45

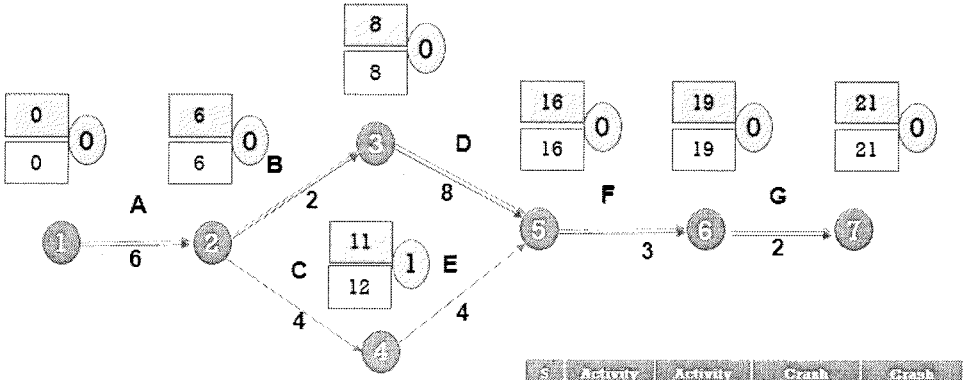
d)



S N	Normal Project Cost ($100)	Crash Activity	Duration (wks)	Crash Cost per wk ($100)	Total Prj. Cost ($100)
1	43.0	?	?	?	?
2	43.0	F	1	7	80

S N	Activity	Activity Cost ($100)	Crash permitted (wks)	Crash Cost per wk ($100)
1	A	4	1	11
2	B	8	0	5
3	C	4	1	5
4	D	9	0	6
5	E	4	2	4
6	F	6	1->0	7
7	G	8	0	8

5



C N	Normal Project Cost ($100)	Crash Activity	Duration (wks)	Crash Cost per wk ($100)	Total Prj Cost ($100)
1	43.0	?	?	?	?
2	43.0	F	1	7	80
3	43.0	A	1	11	61
	NA	NA	NA	NA	

S N	Activity	Activity Cost ($100)	Crash permitted (wks)	Crash Cost per wk ($100)
1	A	4	1->0	11
2	B	8	0	5
3	C	4	1	5
4	D	9	0	6
5	E	4	2	4
6	F	6	1->0	7
7	G	8	0	8

Crashed Project Duration = 21
Crashed project cost = $6100