



**PRESIDENCY UNIVERSITY,  
BENGALURU**

**SCHOOL OF MANAGEMENT**

**MID TERM EXAMINATION**

**Odd Semester:** 2017-18

**Date:** 31 October 2018

**Course Code:** OPS 304

**Time:** 2 Hours

**Course Name:** Project Management

**Max Marks:** 40

**Branch & Sem:** MBA III Sem

**Weightage:** 20%

**Instructions:**

- (i) *Avoid false numbering*
- (ii) *Elucidate your answers with suitable illustrations where needed*

**Part A**

Answer **all** the Questions. **Each** question carries **four** marks. **(3x4=12)**

**Special Instructions:** *Be specific and precise in your answer.*

1. What are the Four Major Concerns Project Management?
2. Draw the Life Cycle of Project Management.
3. What is difference between Project Management and Event Management?

**Part B**

Answer **all** the Questions. **Each** question carries **four** marks. **(3x4=12)**

**Special Instructions:** *Be precise in your answer and draw diagram(s) as necessary.*

4. According to the HBR Article "Why Good Projects Fail Anyway":
  - **Why good projects fail?**
5. According to the Article "Meeting Time, Costs, and Moneymaking Goals with Strategic Project Leadership":
  - **Draw and Explain the Diamond Model of Project Management.**
6. According to the Article "A new framework for determining critical success/failure factors in projects":
  - **Draw the Diagram of Critical Success/Failure Factors of Projects.**

## Part C

Answer **all** the **three Parts** of the Questions.

**(10+4+2=16)**

**Special Instructions:** Part C Questions are technical questions of Project Planning and Control. You must follow the Rules, Notations and Symbols of PERT/CPM. You must ask for **A3 Paper for this section**. You May Use Pencil while Drawing the PERT Diagrams.

7. **The Situation:** Mahindra Group has decided to set up a New Super Specialty Hospital at Yelahanka (SSH-Y), Bangalore to provide high quality Health Services to the localities. You have appointed as Manger Planning & Monitoring. You have to Prepare Project Execution Plan and get it approved from GM Project.

Your Team has identified the Activities, its Precedence and the estimated Duration Time of each activities as detailed in Table 1.

- **Part 1: Draw the Squared PERT Network of SSH-Y** 10  
(Use Activity on Arrow (AOA) Diagramming Technique)
- **Part 2: Calculate the Minimum Project Completion Time.** 04
- **Part 3: Identify the Critical Path of the Project.** 02

**Total = 16**

**Table 1: Activity List of Proposed Super Specialty Hospital – Yelahanka, Bangalore**

Code	Description	Preceding Activity	Duration in Weeks
A	Appoint Project Consultant Decide Capacity & Facilities to be Provided for the Proposed Hospital	--	4
B	Select Site and Acquire Land	--	8
C	Award Contract for Construction of Boundary Wall and Raw Material Stores	B	4
D	Construct Boundary Wall & Stores	C	20
E	Establish the Site Administration Offices and Deploy Project Administration and Execution Team	B	8
F	Finalize List of Equipment & Facilities Required	A	10
G	Define the Scope of Construction Work for the Hospital	B & F	10
H	Installation of Power and Water Supply	E	6
I	Estimate Requirements and Recruit Medical Doctors, Nurses & Other Supporting Staff	A	12

J	Prepare Detailed Specifications of Required Hospital of Equipment & Accessories	F	8
K	Place Orders for Manufacturing, Delivery & Installation of the Hospital Equipment & Accessories	J	10
L	Receive Delivery of the Listed Equipment & Accessories of Super Specialty Hospital of Mahindra SEZ, Jaipur	K	40
M	Award Civil Contract for Construction of the Hospital and Accessory Facilities	G & K	8
N	Major Construction Work of the Super Specialty Hospital	M, H & D	36
O	Preparation of Electrical & Instrumentation Work Specifications and Award of Installation Contract	K	8
P	Installation of Electrical and Instrumentation Devices	O	16
Q	Commissioning Electrical & Instrumentation Systems	P	4
R	Preparation of Specification for Integrated Hospital Communication and Security Systems	O	6
S	Award of Contract for Installation of Integrated & Commissioning of Hospital Communication Systems	R	4
T	Installation and Commissioning of Integrated Hospital Communication System	S	8
U	Installation of All Hospital Equipment & Accessories	N & L	6
V	Testing & Commissioning of All the Listed Hospital Equipment & Accessories	U & Q	4
W	Deploy Medical Doctors, Nurses and Other Paramedics	I	8
X	Conduct On-site Training for the Doctors, Nurses and Supporting Staff about the Mode of Operands and Usage of the New Equipment & Facilities	W, V & T	2
Y	Completion of Remaining Miscellaneous Civil Work	N	30
Z	Trail Run Before Opening the Hospital for Localities	X & Y	2

\*\*\* Good Luck \*\*\*





Roll No. 

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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF MANAGEMENT**

**END TERM FINAL EXAMINATION**

**Odd Semester:** 2018-19

**Course Code:** OPS 304

**Course Name:** Project Management

**Programme & Sem:** MBA & III Sem

**Date:** 11 January 2019

**Time:** 3 Hours

**Max Marks:** 80

**Weightage:** 40%

**Instructions:**

- (i) ***Avoid false numbering***
- (ii) ***Elucidate your answers with suitable illustrations where needed***

**Part A**

Answer **all** the Questions. **Each** question carries **four** marks.

(5Qx4M=20)

**Special Instructions:** *Be specific and precise in your answer.*

1. Despite meticulous time calculation, many a time projects are not completed on time. Explain why?
2. Can a unique and first time project be correctly estimated? If yes, how? If not, why not?
3. What are the **4** types of constraints of project management?
4. What are advantage and disadvantages of Resource Demand Leveling techniques for Time-Constrained Projects?
5. How Critical Chain and 'Buffer' help in Project Execution Management?

**Part B**

Answer **all** the **three parts** of the Question

(5+10+10+5=30)

**Special Instructions:** *Part B Questions are technical questions of Resource Leveling. You must follow the Rules, and Techniques of Resource Leveling of Project Management. You must ask for **A3 Graph Paper for this section**. You May Use Pencil while Drawing the Squared Network Diagrams (with Calendar Month and Year at the Top).*

6. **The Situation:** Presidency University (PU) has decided to set up a Digital Research Lab (DRL) at University Campus, to facilitate Digital Entrepreneurship Research Facility for the students of PU. You have appointed as Project Assistant of the Project Manager in charge of 'Construction and Commissioning' of the DRL. You have been asked to Prepare Project Execution Schedule.

You have identified the major Activities, their dependencies and estimated Duration Time of each activities and top management's requirement as detailed in Table I. Dr. Biswas, registrar of PU, informed you the followings:

- a) The Project work will start from February 2019. The Project must be completed by December 2019.
- b) The project requires two critical resources: Manpower, and Financial Requirements.
- c) The maximum manpower PU can deploy in a month is X and the maximum amount of money the Bank will be disbursed for the Project will not exceed Y Lakhs/ Month.

**Part 1: Draw the Squared PERT Network of DRL Project.** (5M)  
(Use Critical Chain Scheduling Diagramming Technique)

**Part 2: Prepare the Monthly Manpower and Financial Resource Requirement Schedule of DRL (Assume that all activities will start as early as possible)** (5+5=10M)

**Part 3: Do Resource Leveling/ Smoothing and Prepare the Revised Monthly Manpower and Financial Resource Requirement Schedule for DRL Project without extending the Project Completion Time.** (5+5=10M)

**Part 4: Find the Value of X and Y.** (5M)

Total = 30

Activity	Immediate	Duration in Months	Resource Requirements	
	Predecessor		Manpower	Financial
A	-	2	4	40 Lakhs /M
B	-	1	2	10 Lakhs/M
C	-	3	6	50 Lakhs /M
D	A	2	4	30 Lakhs /M
E	B,C	4	8	80K Lakhs M
F	C	5	10	90 Lakhs /M
G	D,E	3	6	50 Lakhs /M

## Part C

Answer all the **three parts** of the Question.

(10+5+15=30)

**Special Instructions:** Part C Questions are technical questions of Project Execution and Control. You must follow the Rules, and Techniques of Critical Chain Project Management. You must ask for **A3 Graph Paper for this section**. You May Use Pencil while Drawing the Squared Network Diagrams (with Calendar Month and Year at the Top).

7. **The Situation:** Presidency University (PU) has decided to set up a Captive Power Plant at University Campus (CPP), to provide uninterrupted power supply to the university. You have appointed as Executive Assistant of the Project Manager in charge of 'Erection and Commissioning' of the power plant. You have to Prepare Project Execution Plan.

You have identified the major Activities, their dependencies and estimated Duration Time of each activities and top management's requirement as detailed in Table II. You have been informed by Dr. Biswas, registrar of PU, that PU has the following Constraints:

- a) There is only One Technical Team of Experts, who Prepare the Technical Specifications. And One Specification at a Time (No Multi-Tasking)
- b) There is only One Purchase Team, Who Place Purchase Order or Award Contract and No Multi-Tasking.
- c) The Project Must be completed before August 2021 i.e. the Project must be completed within 30 Months. (i.e. A Buffer of 3 Months).

**Part 1: Draw the Squared PERT Network of CPP** (10M)  
(Use Critical Chain Scheduling Diagramming Technique)

**Part 2: Identify the Critical Chain and the Buffer of CPP Project.** (5M)

**Part 3: Draw the Project Execution Schedule after taking the above constraints in Consideration.** (15M)

**Total = 30**

Chain	Code	Description	Months	Predecessor	Remarks
<b>Mechanical Work</b>	<b>A</b>	<b>Preparation of Turbine Spec</b>	<b>2</b>	<b>Nil</b>	<b>Project Must be Completed Before August 2021</b>
	<b>B</b>	<b>Place Order for the Turbine</b>	<b>4</b>	<b>A</b>	
	<b>C</b>	<b>Manufacture Turbine</b>	<b>15</b>	<b>B</b>	
	<b>D</b>	<b>Delivery of Turbine at Site</b>	<b>3</b>	<b>C</b>	
	<b>E</b>	<b>Erection of the Turbine</b>	<b>2</b>	<b>D, L &amp; G</b>	
	<b>F</b>	<b>Preparation of Scope Mechanical Work</b>	<b>3</b>	<b>6 Months After B</b>	
	<b>G</b>	<b>Award of Mechanical Erection Contract</b>	<b>3</b>	<b>F</b>	
	<b>H</b>	<b>Testing &amp; Commissioning</b>	<b>2</b>	<b>E &amp; V</b>	
<b>Civil Work</b>	<b>I</b>	<b>Preparation Spec for Civil Work</b>	<b>2</b>	<b>Nil</b>	<b>FDN of Must be Ready 3 Months Before E Can Start</b>
	<b>J</b>	<b>Place Order for Civil Work</b>	<b>3</b>	<b>G</b>	
	<b>K</b>	<b>Receive Foundation (FDN) Drawing for Turbine</b>	<b>2</b>	<b>2 Months After B</b>	

	<b>L</b>	<b>Completion of Civil Work for Turbine Foundation</b>	<b>6</b>	<b>M &amp; K</b>
	<b>M</b>	<b>Completion of Preparatory Civil Work</b>	<b>4</b>	<b>J</b>
	<b>N</b>	<b>Completion of Civil Work</b>	<b>9</b>	<b>M</b>
	<b>O</b>	<b>Complete Civil Work for Elect. &amp; Instr. Items</b>	<b>6</b>	<b>M &amp; 1 Month After Q</b>
<b>Electrical Work</b>	<b>P</b>	<b>Prepn Spec for Electrical &amp; Instr. Items</b>	<b>3</b>	<b>3 Months after B</b>
	<b>Q</b>	<b>Place Order for Electrical &amp; Instr. Items</b>	<b>3</b>	<b>N</b>
	<b>R</b>	<b>Delivery of Electrical &amp; Inst. Items at Site</b>	<b>6</b>	<b>Q</b>
	<b>S</b>	<b>Preparation of Scope Electrical Work</b>	<b>3</b>	<b>2 Months After Q</b>
	<b>T</b>	<b>Award of Electrical &amp; Inst. Installation Contract</b>	<b>3</b>	<b>S</b>
	<b>U</b>	<b>Installation of Electrical &amp; Inst. Items</b>	<b>3</b>	<b>O, R &amp; T</b>
	<b>V</b>	<b>Commissioning of Elec. &amp; Inst. Systems</b>	<b>1</b>	<b>U</b>