



Institute of Management
JK Lakshmipat University
Jaipur
END TERM EXAMINATION



(OPEN BOOK)

BBA Sem-IV
MM: 50 Marks

Course: Production and Operations Management
Time: 3 Hours

General Instructions:

1. Use Pencil, Eraser and Ruler. Think and Draw.
2. Use B4 Size Special Paper. Working as well as Final Solution is important.
3. No Laptop, Mobile phones, pagers, and clock/watch alarms in the Exam Hall.
4. **Do not erase the "Rough Work".**

I have read and understood the examination rules, and I take the full responsibility of the consequences of violating these rules.

(Signature) _____

Question: You are allowed to Open Notes and Books of Your Own.

The Situation: Mahindra Group has decided to set up a New Super Specialty Hospital at Mahindra SEZ (SSH-M), Jaipur 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.

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|---|------------------|
| Part 1: Draw the Squared PERT Network of SSH-M
(Use Activity on Arrow (AOA) Diagraming Technique) | 20 Points |
| Part 2: Do the Forward Pass. | 10 Points |
| Part 3: Do the Backward Pass. | 10 Points |
| Part 4: Calculate the Minimum Project Completion Time. | 05 Points |
| Part 5: Identify the Critical Path of the Project. | 05 Points |

Total = 50 Points

Table 1: Activity List of Proposed Super Specialty Hospital – Mahindra SEZ

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

Thanks and Good Luck