



SOMAIYA
VIDYAVIHAR

K J Somaiya Institute of Engineering and Information Technology

An Autonomous Institute permanently affiliated to University of Mumbai.

Accredited with A grade by NAAC, approved by AICTE, new Delhi.

QUESTION BANK

Institute Elective: Environmental Management.

Course Code: ECCILO 8029

No	Question	CO	BT Level
1	What are biomedical hazards?	3	R
2	Explain the significance of environmental management.	5	U
3	Describe sustainable development	5	U
4	What are the major environmental issues relevant to India?	1	R
5	Explain food chain and food web.	3	U
6	Describe energy scenario in India.	3	R
7	What are the different ecosystems? Explain forest ecosystem in detail.	3	U
8	Describe Global warming and its deleterious effects on environment.	2	R
9	Comment on Atomic hazards.	2	R
10	Explain Air Act and Water Act.	6	R
11	Illustrate with example the endangered species in plants and animals.	3	U
12	Comment on biological hazards.	2	R
13	Comment on global environmental concerns.	1	U
14	What is carrying capacity?	3	U
15	What is a population in Ecosystem?	3	U
16	Explain TQEM.	4	U
17	Describe few man-made disasters and its consequences.	2	U
18	What is an ecological pyramid?	3	U
19	What are the biotic and abiotic factors of ecosystem?	2	U
20	What is Total Quality Management.	4	R
21	Define hazardous material. Explain the type of hazardous material and its way of disposal.	2	R
22	Explain what is meant by loss of biodiversity in environmental management.	3	R
23	Define Ecosystem.	2	R
24	What is Green House effect?	3	R
25	What is Hippo effect?	3	R
26	What are chemicals which causes Ozone layer depletion?	2	U
27	What was the reason for Bhopal Tragedy?	2	U
29	Describe the four main types of Natural resources and explain the significance of environmental management for such type.	6	U
30	What are the different ecosystems? Explain forest ecosystem in detail.	2	U

Course Outcomes:

1. Interpret the concept of environmental management
2. Learn the ecosystem and interdependence, food chain etc. and interpret environment related legislations
3. Identify the environmental issues important to India
4. Learn the regulating policies of Government in environmental management
5. Identify solutions to protect the environment from pollution
6. Examine the quality environmental management.



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**Academic Year 21-22
Department of Electronics and Telecommunication Engineering**

Sr. No.	Question	CO	BT level
Module - 1	Overview of Indian Financial System	CO 1	
1	Explain the meaning of Financial System and characteristics of financial system	1	U
2	Explain the role of financial system.	1	U
3	What are the components of financial system?	1	U
4	What are the financial markets and what are the types of financial markets?	1	U
5	What the characteristics of financial market and role of the financial market?	1	U
6	Distinguish between capital market and money market.	1	U
7	Explain the various modes of fund raising in capital markets.	1	U
Module-2	Concepts of Returns and Risks & Time Value of Money	CO2&CO3	
1	What is return? Explain the components of returns.	2	U
2	Explain the concept of risk. How it is calculated?	2	U
3	What is normal distribution? How it can be used for calculating probability of stock returns?	2	U
4	What is coefficient of correlation? What is the relationship between covariance and coefficient of	2	U

	correlation?		
5	Explain how diversification reduces risk.	2	U
6	Explain various motive for time preference for money	3	U
7	Explain an annuity? Why present value of annuity due is higher than annual compounding.	3	U
8	Explain the concept of time value of money.	3	U
Module- 3	Overview of Corporate Finance and Financial Ratio Analysis	CO 5	
1	Explain finance management decisions.	5	U
2	Explain objective of corporate Finance.	5	U
3	Explain organization of finance function	5	U
4	Explain financial statements	5	U
5	Explain liquidity ratio.	5	U
5	Explain activity ratio	5	U
6	Explain profitability ratio	5	U
7	Explain capital structure ratio	5	U
8	Explain return ratio	5	U
9	Explain stock market ratio	5	U
10	Explain limitation of ratio analysis	5	U
Module 4	Capital Budgeting and Working Capital Management	CO 6	
1	Explain importance of capital budgeting	6	U
2	Explain any one capital budgeting technique	6	U
3	Explain net present value method for capital budgeting	6	U
4	Explain internal rate of return method for capital budgeting.	6	U
5	Explain modified internal rate of return method for capital budgeting.	6	U
6	Explain importance of working capital management	6	U
7	Explain the factor affecting working capital needs	6	U
8	Explain the main objective of holding inventory.	6	U
9	Explain economic order quantity inventory management technique.	6	U
10	Explain cash management process	6	U
11	Explain inventory control systems.	6	U
12	Explain the three major aspects to management of receivables.	6	U
Module 5	Sources of Finance & Capital Structure	CO 4	
	Explain the different sources of finance.	4	U
	Explain hybrid financing	4	U

1	Explain sources of short term finance.	4	U
2	Explain risk involved in project financing.	4	U
3	Explain factor affecting capital structure of the company.	4	U
4	Explain net income approach for capital structure.	4	U
5	Explain net operating income approach for capital structure.	4	U
6	Explain Modigliani miller approach to capital structure	4	U
7	Explain elements of capital structure.	4	U
Module 6	Dividend Policy	CO 4	
1	Explain importance of dividend policy	4	U
2	Explain types of dividend policy	4	U
3	Explain factor affecting dividend decision	4	U
4	Explain Walter model	4	U
5	Explain Gordon model	4	U
6	Explain dividend irrelevance MM approach.	4	U



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Department Information Technology/COMP/ETRX

Question Bank-I

Semester: VII (IT/COMP/AI-DS) Even-2021-2022

Subject: Project Management

Course code: 1UILC8041

- CO1.** Elaborate lessons learned during project phases and document them for future reference
- CO2.** Apply selection criteria and select an appropriate project from different options
- CO3.** Explain work break down structure for a project and develop a schedule based on it.
- CO4.** Identify opportunities and threats to the project and decide an approach to deal with them strategically.
- CO5.** Use earned value technique and determine & predict status of the project.
- CO6.** Inculcate leadership qualities and ethics.

Sr. No	Questions	COs
	UNIT-I	CO1
1	Define project management.	CO1
2	Explain Negotiations and resolving conflicts in project.	CO1
3	Describe Project versus Operations.	CO1
4	List the necessity of Project Management.	CO1
5	Describe Triple Constraints of project.	CO1
6	Explain Project Life Cycles stages with diagram.	CO1
7	List the Role of Project Manager.	CO1
8	Explain Negotiations and Resolving Conflicts in project.	CO1
9	List Various Organization Structures and explain any one.	CO1
10	List advantages of Using Formal Project Management.	CO1
11	Describe Matrix organization structure.	CO1
12	List PM knowledge areas as per Project Management Institute (PMI) and explain any two.	CO1
13	Compare PLC and SDLC cycles.	CO1
	UNIT-II	
14	List simple steps to start any project.	CO2
15	Explain the selecting project strategies.	CO2
16	List Three particularly common problems in organizations trying to manage multiple projects.	CO2
17	List types of Project Selection Models and explain any one.	CO2

18	Explain Numeric /Scoring Model for project selection.	CO2
19	Explain Nonnumeric Model for project selection.	CO2
20	Compare Numeric and Nonnumeric project selection models	CO2
21	Explain Project Portfolio Process(PPP)	CO2
22	List and explain the contents of Project Proposal.	CO2
23	List Stages of Team Development & Growth and explain any one.	CO2
24	Explain Forming and Performing stage development team	CO2
25	Explain Storming and Norming stage development team.	CO2
26	Explain Project Sponsor with example.	CO2
27	List the contents of Creating project Charter.	CO2
	UNIT-III	CO3
28	Describe Project Planning and Scheduling.	CO3
29	Explain Work Breakdown Structure (WBS).	CO3
30	Draw the Work Breakdown Structure (WBS) of KJSIEIT	CO3
31	Explain work package in WBS	CO3
32	List advantages Work Breakdown Structure (WBS)	CO3
33	Explain Linear Responsibility Chart or matric with example.	CO3
34	Describe Interface Co-ordination and Concurrent Engineering in project management.	CO3
35	List and explain project cast estimation techniques.	CO3
36	Explain Top-Down Estimating and Bottom-Up Estimating Technique	CO3
37	Explain Guesstimating and Delphi Technique.	CO3
38	Explain PERT and CPM with example.	CO3
39	Explain Gantt chart with example.	CO3
40	Explain LOC and FP size oriented project estimation metrics.	CO3
41	Activity on the Node (AON) and Activity on the Arrow (AON) with example.	CO3
42	Draw the network diagram using AON for following given data. Activities: A, B, C, D, E, F, G, H, I, J Estimated duration: 2, 5, 4, 3, 1, 4, 3, 2, 5, 1 Predecessor: None, A, B, B, B, CD, DE, FG, G, HI a)Draw network diagram b) Calculate critical path (CPM)	CO3

Department Information Technology/COMP/ETRX
Question Bank-II

Semester: VII (IT/COMP/AI-DS) Even-2021-2022

Subject: Project Management

Course code: 1UILC8041

1. Elaborate lessons learned during project phases and document them for future reference
2. Apply selection criteria and select an appropriate project from different options
3. Explain work break down structure for a project and develop a schedule based on it.
4. Identify opportunities and threats to the project and decide an approach to deal with them strategically.
5. Use earned value technique and determine & predict status of the project.
6. Inculcate leadership qualities and ethics.

Sr. No	Questions	COs
	UNIT-IV	CO4
1	Explain Crashing Project Time with example	CO4
2	Explain AOA and AON network diagram methods with example	CO4
3	Describe resource allocation in project management	CO4
4	Explain resource loading in project management	CO4
5	Identify the steps for resource loading	CO4
6	Explain Resource leveling with example.	CO4
7	Identify issues can be solved by Goldratt's <i>Critical Chain</i>	CO4
8	Describe Goldratt's Critical Chain with example	CO4
9	Identify the typical key stakeholders in a project	CO4
10	Identify the Internal stakeholders in project management	CO4
11	Identify the External stakeholders in project management	CO4
12	Identify the steps involved in project communication plan	
13	Identify the basic elements in communication plan	
14	Identify the Several common mistakes to managing project risk	
15	Identify the step include in risk management processes	
	UNIT-V	
16	Explain Planning, Monitoring and Controlling Cycle	CO5
17	List and explain five monitoring policies	CO5
18	Explain Information Needs and Reporting in project management	CO5
19	Explain three distinct types of reports of project management	CO5
20	List and explain the ways to Engage Project Stakeholders	CO5
21	Explain Project Team in project management	CO5
22	List various duties and responsibilities of project manager	CO5

23	Explain earned value analysis for measuring overall performance of project	CO5
24	Assume that operations on a work package were expected to cost \$1,500 to complete the package. They were originally scheduled to have been finished today. At this point, however, it actually expended \$1,350, and estimate that it has completed two-thirds of the work. a) Determine the cost and schedule variances (page No.453) b) Determine Cost Performance Index (CPI) c) Calculate Schedule Performance Index (SPI)	CO5
25	Explain Project Procurement Management	CO5
26	Explain project Audit.	CO5
27	List and explain different parts of the audit report.	CO5
28	Describe Audits and Project Audits.	CO5
29	Explain project procurement.	CO5
	UNIT-VI	CO6
30	Introduce five practices of excellent Leadership in project management.	CO6
31	Introduce excellent Leadership styles	CO6
32	Describe the democratic leadership style.	CO6
33	Describe the coaching leadership style.	CO6
34	Explain Ethics in project	CO6
35	Explain ethical leadership in project management	CO6
36	Explain unethical leadership in project management	CO6
37	Explain multicultural project.	CO6
38	Explain virtual project.	CO6
39	Explain various type of project termination.	CO6
40	Describe termination by addition.	CO6
41	Describe termination by Integration.	CO6
42	Describe termination by Starvation	CO6
43	List and explain nontechnical project termination.	CO6
44	Explain termination process.	CO6
45	List and explain the elements covered in the final report.	CO6

Subject: Incharge
Dr. Mansing Rathod

B.Tech., Semester-VIII, Electronics Engineering, 2021-22		
Question Bank for end semester examination, Subject-INDUSTRIAL AUTOMATION		
<i>Q.N.</i>	<i>Statement of question</i>	<i>COs</i>
1	What is automation in industry?	CO1
2	Explain history of automation.	CO1
3	Explain architecture of Industrial Automation	CO1
4	Explain hard wire logic control.	CO1
5	Write a short note on Programmable logic controller.	CO1
6	Describe various levels of Industrial Automation.	CO1
7	Production control lies in which level of IA?	CO1
8	Which level is not directly connected with automation?	CO1
9	Level 0 represents about what?	CO1
10	Draw the diagram of structural elements of Industrial control.	CO1
11	What are various jobs perform by supervisory control?	CO1
12	Explain PLC processor module and memory.	CO1
13	Explain SCADA hardware architecture.	CO1
14	Write a short note on MODBUS	CO1
15	Write a short note on PROFIBUS	CO1
16	What is sensor? What are sensor technology advantages?	CO2
17	Explain sensor specifications in brief.	CO2
18	List and explain displacement, position and proximity sensors.	CO2
19	Explain LVDT in details.	CO2
20	List and explain pressure sensors.	CO2
21	List temperature sensors.	CO2
22	Explain Resistance Temperature detectors and thermostat.	CO2
23	What is actuator and control valve?	CO2
24	Classify control valves.	CO2
25	Explain operation and application of IGBT as power electronics device in Industrial application.	CO2
26	Explain operation and application of TRIAC as power electronics device in Industrial application.	CO2
27	Explain operation and application power MOSFET.	CO2
28	Explain operation and application power DIAC.	CO2
29	Compare DIAC, TRIAC, MOSFET and IGBT.	CO2
30	What are different types of DC motors which can be used in IA?	CO2
31	Explain any one DC servo drive used for motion control in Industrial Automation.	CO2
32	Explain any one AC servo drive used for motion control in Industrial Automation.	CO2

Q.N.	Statement of question	COs
33	What is a role of computer in measurement and control?	CO3
34	List various elements of computer aided measurement and control system.	CO3
35	Explain architecture of general purpose computer in industry.	CO3
36	Write a note on Human Machine Interface.	CO3
37	Explain interfacing of computer system with process.	CO3
38	Explain ADC and DAC in industrial automation.	CO3
39	Explain various standard digital interfaces.	CO3
40	Explain various data transfer techniques.	CO3
41	Give and explain types of computer control process software.	CO3
42	Explain computer based data acquisition system.	CO3
43	Write a note on industrial communication system.	CO3
44	Explain computer based hot air blower system.	CO3
45	Write a note on internet of things on plant operation.	CO3
46	Draw block diagram and explain PLC.	CO4
47	List various advantages of PLC.	CO4
48	Explain I/O modules in PLC.	CO4
49	Draw Ladder diagram for – AND, OR, NAND, NOT logic gate	CO4
50	Write a note on sequential function chart.	CO4
51	Draw Sequential Function Chart and Ladder Diagram for washing machine application.	CO4
52	Write a note on PLC communication and networking.	CO4
53	Explain selection of PLC for industrial application.	CO4
54	Explain PLC installation.	CO4
55	Give any one PLC application of process industry.	CO4
56	Draw block diagram and explain basic Distributed Control System.	CO5
57	Write a note on various information displays in DCS.	CO5
58	Explain operating system configuration and controller function configuration in DCS.	CO5
59	Write a note on Data Highway design in DCS communication.	CO5
60	Compare various network access protocols.	CO5
61	What are the various DCS supervisory computer tasks?	CO5
62	Write a note on DCS integration with PLCs.	CO5
63	Write a note on DCS integration with computers.	CO5

64	Explain advanced control strategies in DCS.	CO5
65	Write down features of DCS.	CO5
66	List advantages of DCS.	CO5
67	Define Robotic Process Automation.	CO6
68	List types of robots based on configuration for plant automation.	CO6
69	Explain pick and place Robot.	CO6
70	Explain welding Robot.	CO6



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Department of Electronics Engineering
Academic Year: 2021-22

Subject: Industrial Internet of Things
Class: LY

Subject code: 1UETDLC8032
Sem: VIII

Question Bank

Que. No.	Questions	Marks	CO
1.	Define Revolution. Explain in detail the historical context of industrial revolution 1.0, 2.0, 3.0 and 4.0.	5	CO1
2.	Explain the various trends in industrial revolution in details.	5	CO1
3.	Define globalization. Discuss various globalization issues in detail.	5	CO1
4.	Define globalization.	5	CO1
5.	Discuss various globalization issues in detail.	5	CO1
6.	Compare embedded system and cyber physical system.	5	CO1
7.	What are cyber physical systems (CPS)? Write the features and applications of CPS. Draw the diagram of Cyber physical system.	5	CO1
8.	What are cyber physical systems (CPS)?	5	CO1
9.	Write the features and applications of CPS.	5	CO1
10.	Draw the diagram of Cyber physical system.		
11.	Explain CPS 5C architecture in detail	5	CO1
12.	Write short note on: Tipping points	5	CO1
13.	Write short note on: sustainability assessment of emerging issues	5	CO1
14.	Write short note on: product lifecycle management	5	CO1
15.	Compare smart sensors and intelligent sensors.	5	CO1
16.	What is collaboration platform?	5	CO1
17.	What are the main goals of product lifecycle management (PLM)? explain PLM in detail	5	CO1
18.	What are the different business objectives of product lifecycle management (PLM) for industry 4.0?	5	CO1
19.	Explain scope of product lifecycle management (PLM) in detail		CO1
20.	Write short note on: Cyber security for industry 4.0	5	CO1

21.	Write short note on: software-defined Cloud manufacturing architecture	5	CO1
22.	Explain the smart factory of future applications in detail	5	CO2
23.	Explain internet of things (IoT) and Augmented Reality (AR) implementation in Caterpillar.	5	CO2
24.	Justify the need of industry 4.0 implementation. Discuss industry 4.0 implementation in any two Industry	5	CO2
25.	Define business model. Explain various building blocks of business model.	5	CO2
26.	Explain in detail Industrial Internet Reference Architecture (IIRA).	5	CO2
27.	Explain different IIRA architecture patterns.	5	CO2
28.	Write short note on: outcome based business model	5	CO2
29.	Write short note on: subscription business model	5	CO2
30.	Write short note on: Assets sharing business model	5	CO2
31.	Define transducer. Explain various sensors and transducers used in industry.	5	CO3
32.	Explain the various sensors characteristics.	5	CO3
33.	Define transducer. Give Sensor Classification details. Explain any 2 types in details.	5	CO3
34.	Define transducer.	5	CO3
35.	Give Sensor Classification details.	5	CO3
36.	Explain any 2 types of sensors in details.	5	CO3
37.	Define actuator. Give classification details. Explain any 2 types in details.	5	CO3
38.	Define actuator.	5	CO3
39.	Give actuator classification details.	5	CO3
40.	Explain any 2 types in details.	5	CO3
41.	Write short note on : i) Zigbee	5	CO3
42.	Write short note on : ii) 6LoWPAN	5	CO3
43.	Write short note on : iii) MQTT	5	CO3
44.	Write short note on : iv) sensors and actuators used in IIoT	5	CO3
45.	What are the different requirements of an IIoT network? Justify the suitability of CoAP for IoT environment.	5	CO3
46.	List the various communication protocols used in IoT. Draw the graphical representation of various communication protocols with reference to range and data rate.	5	CO3
47.	Compare: i) Zigbee and Wifi	5	CO3
48.	Compare: ii) 6LoWPAN and Wifi.	5	CO3
49.	Compare: iii) PLC and DCS	5	CO3
50.	Write short note on : i) Foundation Fieldbus	5	CO3
51.	Write short note on : ii) Profibus	5	CO3

52.	Explain the necessity of IIoT Analytics. Define IIoT Analytics. What are the different Analytics Types? Explain in brief.	5	CO4
53.	What are the different IIoT Analytics Challenges?	5	CO4
54.	Justify the role of machine learning in IIoT?	5	CO4
55.	Justify the role of deep learning in IIoT?	5	CO4
56.	Write short note on: IIoT Analytics	5	CO4
57.	Justify the Need for Cloud in IIoT. Explain Cloud Computing Services in IIoT	5	CO4
58.	What is SDN? Draw SDN architecture and explain.	5	CO4
59.	Justify the importance of data visualization techniques. Discuss the various data visualization techniques.	5	CO4
60.	Justify the need of IIoT Security. Explain the various basic security goals. Draw the diagram for trustworthy IIoT.	5	CO5
61.	How IIoT security risk management is done? Explain the various classes of attackers. Explain stride threat model.	5	CO5
62.	Explain in detail IIoT attack surface.	5	CO5
63.	Explain the trust flow in IIoT system along with trust functionalities.	5	CO5
64.	What are the security requirements for IIoT? Draw the diagram for IIoT security building blocks. Explain it in detail.	5	CO5
65.	Draw the diagram for IIoT security building blocks. Explain it in detail.	5	CO5
66.	Explain the security in healthcare IoT.	5	CO5
67.	Explain the need of regulatory standards for IIoT security. Explain the IT and OT security standards.	5	CO5
68.	Explain the need of regulatory standards for IIoT security.	5	CO5
69.	Explain the IT and OT security standards.	5	CO5
70.	Explain in detail IIoT case study - (Refer Book chapter 15, 16,17)	5	CO6

Subject Teacher
Sarika Mane.



Question Bank

Semester: VIII

Even-2021-2022

Subject: Project Management

Course code: 1UILC8041

Course Outcomes:

After taking this Course, students will be able to:

1. Implement various Processes to the knowledge areas in Project management.
2. Plan and schedule Project to meet project goals
3. Identify opportunities and threats to the project and decide an approach to deal with them strategically.
4. Apply Project management techniques to determine & predict status of the project.
5. Prepare documentation required in Project management Process.
6. Apply the principle of ethics and working in team for project management process.

Sr. No	Questions	COs	BT
UNIT-I			
1	Define project management.	CO1	R
2	Explain Negotiations and resolving conflicts in project.	CO1	U
3	Differentiate Project versus Operations.	CO1	A
4	List the necessity of Project Management.	CO1	R
5	Describe Triple Constraints of project.	CO1	U
6	Explain Project Life Cycles stages with diagram.	CO1	R
7	List the Role of Project Manager.	CO1	R
8	Explain Negotiations and Resolving Conflicts in project.	CO1	U
9	List Various Organization Structures and explain any one.	CO1	R
10	List advantages of Using Formal Project Management.	CO1	R
11	Describe Matrix organization structure.	CO1	U
12	List PM knowledge areas as per Project Management Institute (PMI) and explain any two.	CO1	R
13	Compare PLC and SDLC cycles.	CO1	A
14	Implement a “Software upgrade Project” using initiating and Planning Process. Illustrate your answer with the help of Project life cycle diagram	CO1	A
15	Implement a “Bridge Demolition Project” using initiating and Planning Process. Illustrate your answer with the help of Project life cycle diagram.	CO1	A
UNIT-II			
16	List simple steps to start any project.	CO2	R
17	Explain the selecting project strategies.	CO2	U
18	List Three particularly common problems in organizations trying to manage multiple projects.	CO2	R
19	List types of Project Selection Models and explain any one.	CO2	R
20	Explain Numeric /Scoring Model for project selection.	CO2	U



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21	Explain Nonnumeric Model for project selection.	CO2	U
22	Compare Numeric and Nonnumeric project selection models	CO2	A
23	Explain Project Portfolio Process(PPP)	CO2	U
24	List and explain the contents of Project Proposal.	CO2	R
25	List Stages of Team Development & Growth and explain any one.	CO2	A
26	Explain Forming and Performing stage development team	CO2	R
27	Explain Storming and Norming stage development team.	CO2	U
	Explain Project Sponsor with example.	CO2	U
28	List the contents of Creating project Charter.	CO2	R
UNIT-III			
29	Describe Project Planning and Scheduling.	CO3	U
30	Explain Work Breakdown Structure (WBS).	CO3	U
31	Draw the Work Breakdown Structure (WBS) of KJSIEIT	CO3	U
32	Explain work package in WBS	CO3	U
33	List advantages Work Breakdown Structure (WBS)	CO3	R
34	Explain Linear Responsibility Chart or matrix with example.	CO3	U
35	Describe Interface Co-ordination and Concurrent Engineering in project management.	CO3	U
36	List and explain project cost estimation techniques.	CO3	R
37	Explain Top-Down Estimating and Bottom-Up Estimating Technique	CO3	U
38	Explain Guesstimating and Delphi Technique.	CO3	U
39	Explain PERT and CPM with example.	CO3	U
40	Explain Gantt chart with example.	CO3	U
41	Explain LOC and FP size oriented project estimation metrics.	CO3	U
42	Differentiate Activity on the Node (AON) and Activity on the Arrow (AOA) with example.	CO3	A
43	Draw the network diagram using AON for following given data. Activities: A, B, C, D, E, F, G, H, I, J Estimated duration: 2, 5, 4, 3, 1, 4, 3, 2, 5, 1 Predecessor: None, A, B, B, B, CD, DE, FG, G, HI a) Draw network diagram b) Calculate critical path (CPM)	CO3	A
44	Define terms 1) task 2) work package 3) Linear responsibility chart with example.	CO3	U
45	In the web site development project, network shown in following figure, the number alongside each activity designates the activity duration (TE) in weeks. <pre>graph LR Start --> A2 Start --> B4 Start --> C3 A2 --> D3 A2 --> E5 B4 --> E5 B4 --> F6 C3 --> F6 C3 --> G4 D3 --> H4 D3 --> I8 E5 --> I8 E5 --> J2 F6 --> J2 F6 --> L3 G4 --> L3 H4 --> End I8 --> End J2 --> End L3 --> End</pre>	CO4	A
	Determine slack/float on all activities.		



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46	Construct a network for the aerospace launch project below and find its critical path.	CO5	A																														
	<table border="1"> <thead> <tr> <th>Activity</th> <th>TE (weeks)</th> <th>Preceding Activities</th> </tr> </thead> <tbody> <tr> <td>a: Check controls</td> <td>3</td> <td>none</td> </tr> <tr> <td>b: Check propellants</td> <td>5</td> <td>a</td> </tr> <tr> <td>c: Check personnel</td> <td>3</td> <td>a</td> </tr> <tr> <td>d: Assemble items</td> <td>1</td> <td>c</td> </tr> <tr> <td>e: Move to launch pad</td> <td>3</td> <td>b</td> </tr> <tr> <td>f: Run system tests</td> <td>4</td> <td>b, d</td> </tr> <tr> <td>g: Check astronauts</td> <td>2</td> <td>c</td> </tr> <tr> <td>h: Ground stations go?</td> <td>3</td> <td>g, f</td> </tr> <tr> <td>i: Countdown</td> <td>1</td> <td>e, h</td> </tr> </tbody> </table>	Activity	TE (weeks)	Preceding Activities	a: Check controls	3	none	b: Check propellants	5	a	c: Check personnel	3	a	d: Assemble items	1	c	e: Move to launch pad	3	b	f: Run system tests	4	b, d	g: Check astronauts	2	c	h: Ground stations go?	3	g, f	i: Countdown	1	e, h		
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Sr. No	Questions	COs	BT
UNIT-IV			
1	Explain Crashing Project Time with example	CO4	U
2	Explain AOA and AON network diagram methods with example	CO4	U
3	Describe resource allocation in project management	CO4	U
4	Explain resource loading in project management	CO4	U
5	Identify the steps for resource loading	CO4	A
6	Explain Resource leveling with example.	CO4	U
7	Identify issues can be solved by Goldratt's <i>Critical Chain</i>	CO4	A
8	Describe Goldratt's Critical Chain with example	CO4	A
9	Identify the typical key stakeholders in a project	CO4	U
10	Identify the Internal stakeholders in project management	CO4	U
11	Identify the External stakeholders in project management	CO4	U
12	Identify the steps involved in project communication plan	CO4	U
13	Identify the basic elements in communication plan	CO4	U
14	Identify the Several common mistakes to managing project risk	CO4	U
15	Identify the step include in risk management processes	CO4	U
UNIT-V			
16	Explain Planning Monitoring and Controlling Cycle	CO5	U
17	List and explain five monitoring policies	CO5	R
18	Explain Information Needs and Reporting in project management	CO5	U
19	Explain three distinct types of reports of project management	CO5	U
20	List and explain the ways to Engage Project Stakeholders	CO5	R
21	Explain Project Team in project management	CO5	U
22	List various duties and responsibilities of project manager	CO5	R
23	Explain earned value analysis for measuring overall performance of project	CO5	U
24	Assume that operations on a work package were expected to cost 1,500 Rs. to complete the package. They were originally scheduled to have been finished today. At this point, however, it actually expended 1,350 Rs. and estimate that it has completed two-thirds of the work. a) Determine the cost and schedule variances (page No.453) b) Determine Cost Performance Index (CPI) c) Calculate Schedule Performance Index (SPI)	CO5	A
25	Explain Project Procurement Management	CO5	U



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26	Explain project Audit.	CO5	U
27	List and explain different parts of the audit report.	CO5	R
28	Describe Audits and Project Audits.	CO5	U
29	Explain project procurement.	CO5	U
UNIT-VI			
30	Introduce five practices of excellent Leadership in project management.	CO6	U
31	Introduce excellent Leadership styles	CO6	U
32	Describe the democratic leadership style.	CO6	U
33	Describe the coaching leadership style.	CO6	U
34	Explain Ethics in project	CO6	U
35	Explain ethical leadership in project management	CO6	U
36	Explain unethical leadership in project management	CO6	U
37	Explain multicultural project.	CO6	U
38	Explain virtual project.	CO6	U
39	Explain various type of project termination.	CO6	U
40	Describe termination by addition.	CO6	U
41	Describe termination by Integration.	CO6	U
42	Describe termination by Starvation	CO6	U
43	List and explain nontechnical project termination.	CO6	R
44	Explain termination process.	CO6	U
45	List and explain the elements covered in the final report.	CO6	R
46	Do you think socialization off the job helps or hinders? Explain in brief.	CO6	U
47	How does a project manager, in some cases, work like a politician?	CO6	U

Subject: Incharge

Prof. Prashant Upadhyay



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