

Module – 4

Q.7	a.	Define project supply chain management. Discuss the components, factors and decisions of project supply chain management.	10	L2	CO5
	b.	Describe the different types of contracts used in project procurement and acquisitions.	10	L2	CO5

OR

Q.8	a.	Analyze the balanced score card approach for project determination.	8	L2	CO6
	b.	Discuss the impact of early project termination on stakeholders and resources.	6	L2	CO5
	c.	Identify the steps involved in administrative closure of a project, how it is different from contract closure.	6	L3	CO5

Module – 5

Q.9	a.	Write short notes on : i) AON diagram ii) AOA diagram.	10	L2	CO7																								
	b.	Construct a network diagram for the given activities and number the events by using Fulkerson's rule. <table><tr><td>Activity</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td><td>K</td></tr><tr><td>Predecessor</td><td>-</td><td>-</td><td>-</td><td>A</td><td>B</td><td>B</td><td>C</td><td>D</td><td>E</td><td>H, I</td><td>F, G</td></tr></table>	Activity	A	B	C	D	E	F	G	H	I	J	K	Predecessor	-	-	-	A	B	B	C	D	E	H, I	F, G	10	L3	CO7
Activity	A	B	C	D	E	F	G	H	I	J	K																		
Predecessor	-	-	-	A	B	B	C	D	E	H, I	F, G																		

OR

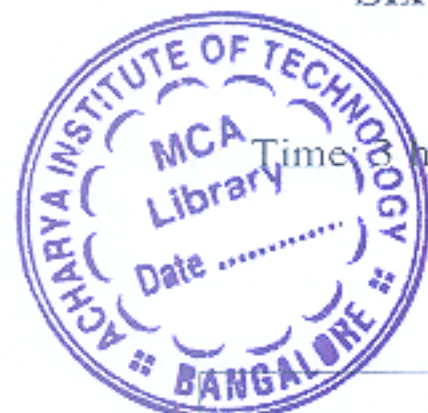
Q.10	a.	Define float in project scheduling. Explain the different types of floats.	10	L2	CO7
	b.	Analyze and explain PERT for finding expected duration of an activity and project.	10	L4	CO7

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BME654D

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025

Modern Mobility

Time: _____ hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.**2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Explain the wet sump lubrication system of an I.C engine with a schematic diagram. Also list advantages and limitations of the system.	10	L2	CO1
	b.	Describe the functions of major components of an I.C engine with suitable sketches.	10	L2	CO1
OR					
Q.2	a.	Classify engine cooling system and explain the working principle of a water cooled engine system with a neat diagram.	10	L2	CO1
	b.	Classify ignition system and explain the construction and working of a battery ignition system with a neat diagram.	10	L2	CO1
Module – 2					
Q.3	a.	Explain the sliding Mesh gear shifting mechanism with a neat diagram. Also, analyze the limitations of the system.	8	L3	CO2
	b.	Explain the working of a centrifugal clutch with a neat diagram.	6	L2	CO2
	c.	Describe the working principle of a cone clutch with suitable sketch.	6	L2	CO2
OR					
Q.4	a.	Describe the working of a continuously variable transmission system with a neat sketch. Also, analyze the limitations of the system.	8	L3	CO2
	b.	Explain the construction and working of differential with a suitable sketch.	6	L2	CO2
	c.	Explain the step-by-step procedure for patching a puncture in a tubeless tyre.	6	L2	CO2
Module – 3					
Q.5	a.	Sketch and explain the working of a worm and wheel steering gear box. Also analyze and limitations of the system.	10	L3	CO2
	b.	Sketch and explain the construction and working of power steering system.	10	L2	CO2
OR					
Q.6	a.	Sketch and explain the working of hydraulic brakes. Also analyze the limitation of the system.	10	L3	CO2
	b.	Sketch the layout and explain the working of air suspension.	10	L2	CO2