

## 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.	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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**Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025**  
**Modern Mobility**

Time: 3 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.*

<b>Module – 1</b>			<b>M</b>	<b>L</b>	<b>C</b>
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
<b>OR</b>					
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
<b>Module – 2</b>					
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
<b>OR</b>					
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
<b>Module – 3</b>					
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
<b>OR</b>					
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