QP Code: R262B036 | Reg. No | | | | | | | | | | | AY 25

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

M.Tech. (Second Semester - Regular) Examinations, May – 2026

MPECT2042 – Infrastructure Planning

Time: 3 hrs | Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. List the steps involved in infrastructure planning.	CO1	K1
b. Define project scheduling.	CO2	K1
c. Define demand curve.	CO3	K1
d. Define financial evaluation.	CO4	K1
e. Define project risk analysis.	CO4	K1

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions	Marks	CO #	Blooms Level
2. a. Explain the steps involved in infrastructure planning.	5	CO1	K2
b. Discuss the process of project identification and formulation.	5	CO1	K2
(OR)			
c. Discuss environmental considerations in infrastructure planning.	5	CO1	K2
d. Apply the integrated infrastructure planning approach to a specific urban development project	5	CO1	K3
3.a. Explain multi-criteria analysis for infrastructure alternatives.	5	CO2	K2
b. Explain procurement strategies used in infrastructure projects.	5	CO2	K2
(OR)			
c. Discuss project management tools for planning activities.	5	CO2	K2
d. Illustrate the integration of planning and management activities within a specific infrastructure project.	5	CO2	K3
4.a. Discuss principles of economic analysis for public works	5	CO3	K2
b. Explain price elasticity and its importance in infrastructure planning.	5	CO3	K2
(OR)			
c. Discuss uncertainty in infrastructure projects.	5	CO3	K2
d. Discuss the role of economic analysis in decision making.	5	CO3	K2
5.a. Calculate the financial evaluation of infrastructure projects using Net Present Value and Internal Rate of Return	5	CO4	K3
b. Discuss techniques for risk assessment and mitigation.	5	CO4	K2
(OR)			
c. Explain cost estimation methods in infrastructure projects.	5	CO4	K2
d. Discuss political perspectives in infrastructure planning.	5	CO4	K2
6.a. Explain financial planning for large infrastructure projects.	5	CO4	K2
b. Discuss uncertainties in financial projections	5	CO4	K2
(OR)			
c. Demonstrate the integration of financial and risk analysis in decision making for a project.	5	CO4	K3
d. Discuss challenges and future trends in infrastructure development.	5	CO4	K2

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