BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: IMSc **SEMESTER: V**
BRANCH: QEDS **SESSION: MO/2024**

SUBJECT: ED311 PUBLIC ECONOMICS

TIME: 3 Hours **FULL MARKS: 50**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	In order to make college more affordable for students from families with fewer resources, a government has proposed allowing the student of any family with less than Rs 200000 annual income to attend a public university for free. Discuss the direct and possible indirect effects of such a policy.	[5]	1	5
Q.1(b)	Explain with appropriate examples why the government should provide public goods.	[5]	1	3
Q.2(a)	Explain how personalized pricing of public goods (Lindahl equilibrium) leads to efficient allocation of public goods.	[5]	2	2
Q.2(b)	Let there be two identical consumers. What would be the share of the cost each should pay for a public good at the Lindahl equilibrium? Explain. What would be the equilibrium outcome if both consumers tried to manipulate the Lindahl equilibrium?	[5]	2	4
Q.3(a)	Explain with reference to the Median Voter Theorem how the amount of public good to be provided in an economy is decided.	[5]	3	2
Q.3(b)	Will the level of public goods to be provided by government, decided by the Median Voter Theorem be Pareto efficient? Explain with reasons.	[5]	3	3
Q.4(a)	Explain graphically when quantity regulation will be more efficient in pollution abetment compared to Pigouvian taxes when there is uncertainty about the marginal cost of abatement.	[5]	4	3
Q.4(b)	Suppose a steel company has two manufacturing plants, A and B. The marginal abatement cost of pollution reduction of plant A is given by MC_A=30+5Q. The marginal abatement cost of pollution reduction of plant B is given by MC_B=50+6Q. The marginal benefit of pollution reduction is constant at MB=200. The government orders this steel company to reduce pollution by 25 units in each plant. Will this reduction lead to an efficient outcome? Explain with reasons.	[5]	4	4
Q.5(a)	Suppose the demand of a good is given by Q^d=2000-100P and supply is given by Q^s=-100+200P. The government decides to impose a per unit tax of Rs 3 on the sale of the good. Who bears the statutory incidence of this tax? Who bears the economic incidence of this tax? What will be the after-tax price paid by the consumers?	[5]	5	4
Q.5(b)	The demand of a good is given by Q^d=300-25P and supply is given by Q^s=-100+20P. The government decides to impose a per unit tax of Rs 5 on the sale of the good. What will be the price received by the sellers? What is the price paid by the buyers? How much will be the deadweight loss associated with the taxation?	[5]	5	4

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