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## UNIVERSITY OF PETROLEUM \& ENERGY STUDIES <br> End Semester Examination (Online) - December, 2021

## Program: BA Public Policy and Administration <br> Subject/Course: Public Economics-II <br> Course Code: BAPP2001

Semester: III
Max. Marks: 100
Duration: 3 Hours

| Q.No. | Section A (Type the Answers in test box) | $10 \mathrm{Q} \times 2 \mathrm{M}=20 \mathrm{M}$ | COs |
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|  | Question | Marks | COs |
| 1 | Suppose that a particular allocation is not Pareto optimal. If this is so and the allocation is changed to make someone people better off, then: <br> a. everyone else will be worse off. <br> b. no one else can be worse off. <br> c. everyone else will be better off also. <br> d. no one else need be worse off. | 2 | $\begin{array}{\|l} \mathrm{CO} \\ 1 \end{array}$ |
| 2 | Three projects are under consideration: a new concert hall, a new football stadium, and a new library. Sarah believes the concert hall will provide a large net benefit, Jesse wants the new football stadium, and Emma supports the proposed library. If all three projects are rejected in majority voting (where each voter is asked to vote yes or no), we can conclude that: <br> a. it is efficient to spend tax dollars on all three of these, demonstrating that it is impossible for society to make efficient choices using majority voting. <br> b. all three projects could be approved if we allowed "vote-trading", but this doesn't guarantee that they are all efficient ways to use public funds. <br> c. none of the projects can be efficient in the sense that social benefits exceed social costs. <br> d. only those projects that are efficient (with social benefits in excess of social costs) could be approved if we allowed "vote-trading". | 2 | $\begin{aligned} & \mathrm{CO} \\ & 1 \end{aligned}$ |
| 3 | In order to derive a market demand curve for a public good, individual demand curves are $\qquad$ summed; in order to derive a market demand curve for a private good, individual demand curves are $\qquad$ summed. <br> a. horizontally; horizontally <br> b. horizontally, vertically <br> c. vertically; horizontally <br> d. vertically; vertically | 2 | $\begin{array}{\|l\|} \mathrm{CO} \\ 1 \end{array}$ |
| 4 | If each family's tax liability is determined by the formula Tax Liability $=$ (0.25)Income - \$4000, then: <br> a. the marginal tax rate increases as income increases, so the tax is progressive. | 2 | $\begin{array}{\|l\|} \hline \mathrm{CO} \\ 1 \\ \hline \end{array}$ |


|  | b. a family with income equal to $\$ 16,000$ pays no income tax. <br> c. a family with income equal to $\$ 20,000$ pays no income tax. <br> d. none of the above are correct. |  |  |
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| 5 | When each individual has consistent preferences, but those of the community are not consistent, it is known as <br> A. agenda manipulation. <br> B. majority rule. <br> C. voting paradox. <br> D. logrolling. | 2 | CO1 |
| 6 | In a representative democracy, there are <br> A. elected politicians. <br> B. public employees. <br> C. special interests. <br> D. all of these answer options are correct. | 2 | CO1 |
| 7 | Government bureaucrats want larger budgets <br> A. because salaries are sometimes tied to budget size. <br> B. to fulfill an "empire building" tendency. <br> C. because it may be necessary to ensure marginal benefits of output equal marginal costs. <br> D. all of these answer options are correct. | 2 | CO1 |
| 8 | Lindahl prices <br> A. result in efficient levels of public goods provision. <br> B. require honest revelation of preferences. <br> C. result in different prices for the same amount of output. <br> D. cause all of these. <br> E. none of these answer options are correct. | 2 | CO1 |
| 9 | A tax is said to be buoyant if tax revenue is proportionally: <br> (1) More responsive to changes in output. <br> (2) Less responsive to changes in output. <br> (3) Equally responsive to change in tax base <br> (4) Less responsive to changes in tax base | 2 | CO1 |
| 10 | Public goods are characterized by <br> a) nonrivalness. <br> b) excludability. <br> c) the sum of the MRSs equaling MRT. <br> d) all of these answer options are correct. | 2 | CO1 |

1. Each question will carry 5 marks

## 2. Instruction: Write short/ brief notes

## Section-B

(Scan and upload)

| 1. | Calculate Real Government Expenditure in base year dollars, then calculate real per capita expenditure (fill in the blanks in the table). <br> Between year 1 and year 2, government expenditure increased $\qquad$ $\%$, while real government expenditure increased $\qquad$ $\%$ and real government expenditure per capita increased $\qquad$ $\%$. | 5 | CO 2 |
| :---: | :---: | :---: | :---: |
| 2. | Consider the following net benefits (measured in billions of dollars) that will result from the passage of two legislative bills, X and Y : <br> (a) Identify the logrolling opportunity present in this situation. <br> (b) Identify the potential gains to voters. <br> (c) Explain why logrolling is efficiency enhancing. | 5 | CO 2 |
| 3. | What do you mean by effect of tax shifting? Discuss the effect of unit tax on suppliers. (Use Diagram to explain) | 5 | $\begin{aligned} & \mathrm{CO} \\ & 2 \end{aligned}$ |
| 4. | Increasing the amount of annual per expenditures on school has helped in increasing student performance. What could make that improvement better? | 5 | CO 3 |
| Q.No. | Section-C <br> (Scan and upload) | $3 \mathrm{Q} \times 10 \mathrm{M}=30 \mathrm{M}$ |  |
| 1 | The supply of newspapers is perfectly elastic at a price of $\$ 0.75$. Sketch the supply and demand graph below and calculate the equilibrium number of newspapers demanded by consumers in this market assuming the quantity demanded is given by the function: $\mathrm{QD}=864,000-512,000 \mathrm{P}$ <br> Suppose that a 20 percent tax is imposed on newspapers, causing the after-tax price to increase to $\$ 0.9$. Show the effect of this tax in your graph (label the new supply line S') | 10 | $\begin{aligned} & \mathrm{CO} \\ & 3 \end{aligned}$ |


|  | and calculate the excess burden resulting from the tax. Calculate the price elasticity of demand coefficient at the initial equilibrium point using the formula $\varepsilon^{D}=\left\|\left(\Delta Q^{D} / \Delta P\right)\left(P / Q^{D}\right)\right\|$ and use this value to verify that the excess burden can also be calculated using the formula $\mathrm{EB}=\mathrm{EB}=1 / 2 \varepsilon^{\mathrm{D}}(\mathrm{PQ}) \mathrm{t}^{2}$. |  |  |
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| 2 | What are the objectives to study public economics? Explain with suitable examples. | 10 | $\begin{array}{\|l\|} \hline \mathrm{CO} \\ 3 \end{array}$ |
| 3 | Two consumers A and B have incomes of $\$ 30,000$ and $\$ 100,000$, respectively. A and B consume the same bundle of goods with a cost (including tax) of 24,000 . The only tax on the economy is a commodity tax levied uniformly on all goods at a rate of 20 percent. <br> i. What proportion of income is paid in tax by A and B ? <br> ii. What implications does such a tax have in terms of equity? <br> iii. Is there any way the commodity tax can be restructured to improve its equity properties? <br> OR <br> Derive the deadweight loss which arises because of indirect tax on various economic agents in the economy | 10 | CO3 |


| Q.No | Section-D <br> (Scan and upload) | $2 \mathrm{Q} \times 15 \mathrm{M}=30 \mathrm{M}$ |  |
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| 1 | Evaluate any one public policy recently taken by the government and the implications for <br> the economy. <br> (Hint: You can choose any one popular scheme of the central government to write the <br> essay) | 15 | CO4 |
| 2 | Apply your understanding fiscal policy to explain the increase in public spending during <br> the pandemic across various countries. <br> What are the different types of Direct Tax and Indirect Tax? Explain the objective of <br> taxation. | 15 | CO4 |

