

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SIXTH SEMESTER EXAMINATION, MAY 2018

THIRD YEAR [BATCH 2015-18]

ECONOMICS (Honours)

Paper : X

Date : 24/04/2018

Time : 11 am – 12.30 pm

Full Marks : 50

INSTRUCTIONS

Answer all the questions given below. Each question carries 2 marks. Tick (✓) the correct option. The tick must be very clear — if it is smudged or not clear, no marks will be awarded.

Name :

Roll :

Signature of the Student:

Signature of the Invigilator:

1. There are two individuals, 1 and 2. Suppose, they are offered a lottery that gives Rs 160 or Rs 80 each with probability equal to $\frac{1}{2}$. The alternative to the lottery is a fixed amount of money given to the individual. Assume that individuals are expected utility maximizers. Suppose, individual 1 will prefer to get Rs 110 with certainty over the lottery. However, Individual 2 is happy receiving a sure sum of Rs. 90 rather than facing the lottery. Which of the following statements is correct?

- a) Both individuals are risk averse.
- b) 2 is risk averse but 1 loves risk
- c) 1 is risk averse but 2 loves risk
- d) none of the above.

2. To regulate a natural monopolist with cost function $C(q) = a + bq$, the government has to subsidize the monopolist under

- a) average cost pricing
- b) marginal cost pricing
- c) non-linear pricing
- d) all of the above

3. Suppose an economic agent lexicographically prefers x to y, then her indifference curves are

- a) straight lines parallel to the x axis
- b) straight lines parallel to the y axis
- c) convex sets
- d) L shaped curves

4. Consider an exchange economy with agents 1 and 2 and goods x and y. Agent 1 lexicographically prefers x to y. Agent 2's utility function is $\min\{x, y\}$. Agent 1's endowment is (0, 10) and agent 2's endowment is (10, 0). The competitive equilibrium price ratio, p_x/p_y , for this economy

- a) can be any positive number
- b) is greater than 1
- c) is less than 1
- d) does not exist

5. Consider a government and two citizens. The government has to decide whether to create a public good, say a park, at cost Rs 100. The value of the park is Rs 50 to citizen 1 and Rs 60 to citizen 2; each valuation is private information for the relevant citizen and not known to the government. The government asks the citizens to report their valuations, say r_1 and r_2 . It cannot verify the truthfulness of the reports. It is known to the government and both the citizens that the individual valuation of each citizen belongs to the range [0,100]. The government decides to build the park if $r_1 + r_2 \geq 100$, in which case, citizen 1 will pay the tax $100 - r_2$ and citizen 2 will pay the tax $100 - r_1$. If the park is not built, then no taxes are imposed. Then

- a) The park will be built and result in a government budget surplus of Rs 10.
 - b) The park will be built and result in a government budget deficit of Rs 10.
 - c) The park will be built and result in a government balanced budget.
 - d) The park will not be built.
6. Two countries produce Cars and Boats. Country A can produce Cars with 10 units of labor and Boats with 20 units of labor. Country B can produce Cars with 100 units of labor and Boats with 200 units of labor.
- a) There are no gains from trade between these two countries
 - b) Only A will gain due to free trade
 - c) Both countries will be worse off if they engage in trade
 - d) More information is required to conclude about gains from trade
7. A monopolist seller produces a good with constant marginal cost $c \geq 0$. The monopolist sells the entire output to a consumer whose utility from consuming x units of the product is given by $\theta\sqrt{x} - t$, where t is the payment made by the consumer to the monopolist. Suppose, consumer's outside option is 0, i.e., if she does not buy the good from the monopolist, she gets 0 utility. Then, the monopolist's profit is
- a) $\frac{\theta}{4c}$
 - b) $\frac{\theta^2}{4c}$
 - c) $c\theta^2$
 - d) $\frac{c\theta}{2}$
8. Suppose a car producing firm acquires a tyre producing firm. The value of the tyres that were deducted from the value of the firm as intermediate purchases earlier, are now a part of the production of the firm itself. This will make the value of the GDP
- a) Increase
 - b) Decrease
 - c) Unchanged
 - d) Uncertain
9. Consider an economy which was initially linked with outside economy and was operating in a liberalized framework. Now for some political reasons it imposes trade sanction and becomes more or less closed. Consider external repercussions the value of the autonomous expenditure multiplier now becomes:
- a) Greater
 - b) Lesser
 - c) Same
 - d) Incomparable
10. In an economy the people do not change their preference for holding liquid money for any change in the interest rate. Government of the economy wants to increase the level of income of the economy and is considering two alternative policy stances : use expansionary monetary policy and use a combination of fiscal and monetary policies. Given the characterization of the economy:
- a) The first policy will be more effective
 - b) The second policy will be more effective
 - c) Both the policies will be equally effective
 - d) Comparison of policies is not possible
11. Suppose there are two neighbouring economies with the same production function. The savings rate of the first and second economy are .05 and .50 respectively. Suppose for certain technological changes savings rate of both the countries increase by 75%. Under this situation, at the new equilibrium :
- a) First country will exhibit higher growth rate
 - b) Second country will exhibit a higher growth rate
 - c) Both countries will grow at the same rate
 - d) It is not possible to compare the equilibrium growth rate of the two countries

12. Dumping in the context of international trade refers to:
- Buying goods at low prices abroad and selling at higher prices locally
 - Expensive goods selling for low prices
 - Reducing tariffs
 - Sale of goods abroad at low a price, below their cost and price in home market
13. According to Hecksher and Ohlin basic cause of international trade is:
- Difference in factor endowments
 - Difference in markets
 - Difference in political systems
 - Difference in ideology
14. Terms of trade of developing countries are generally unfavourable because:
- They export primary goods
 - They import value added goods
 - They export few goods
 - (a) and (b) of above
15. Underlying the application of the monopolistic competition model to trade is the idea that trade:
- increases market size
 - allows companies to charge higher price
 - increases consumer choices
 - decreases the number of firms in an industry
16. International Trade is most likely to generate short-term unemployment in:
- Industries in which there are neither imports nor exports
 - Import-competing industries
 - Industries that sell to domestic and foreign buyers.
 - Industries that sell to only foreign buyers
17. Which of the following is a part of capital account?
- Private capital
 - Banking capital
 - Official capital
 - All the above
18. A consumer has the following utility function derived over x_1 and x_2 :
 $U(x_1, x_2) = a_1 \log x_1 + a_2 \log x_2$; $a_1 + a_2 = 1$. Find his demand schedules for x_1 and x_2 . (Here M = Income) (& p_1, p_2 are prices)
- $x_1 = \frac{Ma_1}{p_1}, x_2 = \frac{Ma_2}{p_2}$
 - $x_1 = \frac{Ma_2}{p_1}, x_2 = \frac{Ma_2}{p_2}$
 - $x_1 = \frac{p_1 a_1}{M}, x_2 = \frac{p_2 a_2}{M}$
 - $x_1 = \frac{Mp_1}{a_1}, x_2 = \frac{Mp_2}{a_2}$
19. Find the elasticity of substitution for the production function $E = [aK^{-b} + (1-a)L^{-b}]^{-\frac{1}{b}}$:
- $\frac{1}{1-b}$
 - $\frac{1}{1-b^2}$
 - $1-b$
 - $\frac{1}{1+b}$
20. If the MC function of a firm is $M = \frac{a}{\sqrt{ax+b}}$ and if the cost of zero output is zero, find the TC function.
- $TC = 2\sqrt{ax+b} + 2\sqrt{b}$
 - $TC = 2\sqrt{ax+b} - 2\sqrt{b}$
 - $TC = \frac{1}{\sqrt{ax+b}}$
 - $TC = (ax+b)^{\frac{3}{4}} - 2\sqrt{b}$

21. Given the assumptions of the CLRM, the least squares estimates possess some optimum properties given by Gauss Markov theorem. Which of these statement is NOT part of the theorem:
- The estimator $\hat{\beta}$ is a linear function of a random variable
 - The average value of the estimator $\hat{\beta}$ is equal to zero
 - The estimator $\hat{\beta}$ has minimum variance
 - The estimator $\hat{\beta}$ is unbiased estimator
22. When $\hat{Y}_i = Y_i$ for each i in a bivariate (with intercept) regression model then the value of r^2 would be :
- $r^2 = Y$
 - $0 \leq r^2 \leq 1$
 - $r^2 = 1$
 - $r^2 = 0$
23. If the estimated $\hat{\beta}_2$ is equal to hypothesized β_2 , the t-value will be equal to
- 0
 - 1
 - 30
 - standard error of $\hat{\beta}_2$.
24. In trying to test that females earn less than their male counterpart we estimate the following model $Y_i = \beta_1 + \beta_2 D_i$, where Y = average earnings / day in Rs, $D = '1'$ for females and $'0'$ otherwise. Here β_2 refers to
- Average earnings of male
 - Average earnings of female
 - Differential intercept coefficient for male earnings
 - Differential intercept coefficient for female earnings
25. $E(Y_i / x_i)$ for LPM must lie between
- 1 and +1
 - 0 and 1
 - 1 and 0
 - 0 and 2

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