JNU SSS 2020

Q1. The degree of price control will be very high in the case of:

a) Imperfect Competition
b) Perfect competition
c) Monopoly
d) Monopolistic

Q2. If two lines of regression are perpendicular to each other, then the relation between the regression coefficients is:

a) $\beta_{xy} = \beta_{yx}$
b) $\beta_{xy}\beta_{yx} = 1$
c) $\beta_{xy} + \beta_{yx} = 1$
d) $\beta_{xy} + \beta_{yx}$=0 (Correct Answer)

Q3. Correlation coefficient (*r*) is significant (r) is significant when:

a) $r > 6$ probable error
b) $r > 6$ probable error
c) $r = 6$ probable error
d) None of above

Q4. When the rate of taxation increases with increase in income, then it is:

a) Proportional tax
b) Progressive tax
c) Regressive tax
d) All of above

Q5. Primary deficit means:

a) Fiscal deficit minus interest payment
b) Excess of expenditure over receipt
c) Deficit financed by borrowing externally
d) none

Q6. When $C = 20 + 0.5Y, I = 50, G = 10$, Find the national income.

a) 160
b) 170
c) 140
d) 150

Q7. In a box containing 100 bulbs, 10 are defective. what is the probability that out of sample of 5 bulbs none is defective?

a) 1/10
b) 1/4
c) $\left(\frac{9}{10}\right)$ ^5 $= \left(\frac{9}{10}\right)^5$
d) None of the option

Q8. Rostow divided economic growth into stages of:

a) Two

b) Five
c) Four
d) Three

Q9. Find the private income from given data in ∩ $NDP_{FC} = 15400$, Net income from abroad=100, Transfer payment from government = 250, Net donation from abroad = 50, Interest on national debt=150, income to government from domestic product=150.

a) 15800
b) 18500
c) 24300
d) 16150

Q10. When production function of a firm is $Q = 20\ K^{0.5}L^{0.5}$, price of capital is ∩ 5 per unit and labour is ∩ 4 per unit. What will be expansion path ratio for the firm?

a) K = 0.3L
b) K = 39/4L
c) K = 14/5L
d) K = 0.8L

Q11. For an economy. If $C = 400 + 0.8\ Y_d, Y_d = Y - T, T = 300 + 0.2Y$, Find MPC

a) 0.93
b) 0.64
c) 0.20
d) 0.81

Q12. What will be slope (dK/dL) of the given Iso quant $4\ K^{1/4}L^{3/4} = 2000$?

a) (-) 3K/L
b) (-) 5 K/L
c) (+)5 K/L
d) 3/5K

Q13. Let $\delta > 0$ be a constant and $f(x) = \begin{cases} \delta x(1-x), & 0 < x < 1 \\ 0, & otherwise \end{cases}$ is a pdf. Find the $P(X > 0.3)$.

a) 1
b) 0.234
c) 2
d) 0.784

Q14. When Average variable Cost AVC = 10 – 5Q + 10Q^2. What will be output at minimum marginal cost when fixed cost is 50?

a) 0.166
b) 0.178
c) 0.23
d) none

Q15. When interest rate is very low and LM curve becomes horizontal straight line, then this situation is known as:

a) liquidity ratio
b) liquidity trap
c) giffen curve
d) debt trap

Q16. When government imposes tax in the case of negative production externality, what will be effect on consumer Surplus?

a) Consumer surplus reduces
b) Consumer surplus increases
c) Consumer surplus does not change
d) None of the above

Q17. Ms. Sulekha wants to buy two goods namely Samosa and Jalebi when she is having Money income $\$10.00$ each and the price of Jalebi \$4.00 each. What proportion of income should she allocate on Samosa and Jalebi to maximise utility when the utility function is $\sqrt{x_1 x_2}$ where x_2 and x_1 stand for Samose and Jalebi respectively.

a) 60 on x_1 and 40% on x_2
b) 50% on x_1 and 50% on x_2
c) 40% on x_1 and 60% on x_2
d) 70% on x_1 and 30% on x_2

Q18, What will be the equilibrium income when commodity market (IS) and the money market (LM) are in equilibrium in the case of $C = 102 + 0.7Y, I = 150 - 100i, M_2 = 124 - 200i$?

a) 1100
b) 1300
c) 1900
d) 1000

Q19. The below question has been dropped and full marks are awarded.
If $X \sim N(30, 5^2)$ then which one of the following is correct?

a) $P(X \geq 30) = 0.5$
b) $P(X \leq 0) = P(X \geq 1)$
c) $P(|X| \leq 1) = P(|X| \geq 1)$
d) $P(30 \leq X \leq 40) = P(20 \leq X \leq 30)$

Q20. Hirshman takes divergent series of investment as a project that:

a) Creates less external economies than they appropriate
b) Creates more external economies than they appropriate
c) Creates no external economies than they appropriate
d) None of the above

Q21. Let X be distributed with pdf $f(x) = 1$ if $0 < x < 1$. Is equal to zero otherwise. Then find the EX. EX^2 and Var(X).

a) $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$
b) $\frac{1}{2}, \frac{1}{3}, \frac{1}{12}$
c) $\frac{1}{2}, \frac{1}{4}, \frac{1}{4}$
d) $\frac{1}{2}, \frac{1}{4}, \frac{1}{12}$

Q22. When the price of pen is $\cap\ 20$ and elasticity of demand is 1.6, find the marginal revenue.

a) 1.7
b) 7.5
c) 9.5
d) 3.5

Q23. The demand function for a good in place is Q = 24 -3P. what will be the theoretically maximum quantity (Q) demanded for price (P)?

a) 33
b) 24

c) 8
d) 28

Q24. If the demand function of a commodity X is X=200-0.5P, what will be demand elasticity at a price of ∩ 5?

a) 0.097
b) 0.052
c) 0.067
d) 0.093

Q25 The probability that a 3-card hand drawn at random and without replacement from an ordinary deck consists entirely of red cards is:

a) $\frac{9}{17}$
b) $\frac{3}{17}$
c) $\frac{2}{17}$
d) $\frac{4}{17}$

Q26. The demand function Q_d=35000-5P and the supply function of a firm Ms. Sulekhs Ltd. is Q_s=20000+20P What will be impact on the quantity demanded and price when government imposes specific sales tax ∩ 10.00 per unit and Lump Sum tax ∩ 2000.

a) 509
b) 608
c) 1200
d) 609

Q27. We consider Fisher's index as an ideal index because it satisfies

a) Time reversal test
b) Factor reversal test
c) Both time and factor reversal test
d) None

Q28. The slope of the budget line is (-) 0.25 and in come is ∩ 100 for buying two equal goods Samosa and Jalebi. What amount will be spent on Samosa?

a) 30
b) 34
c) 65
d) 20

Q29. If equation of lines 4x-ky=6 and 6x+3+2=0 are perpendicular then,

a) K=2
b) K=4
c) K=6
d) K=8

Q30. The demand function for a quantity Q is Q_d = 35000 - 5P. Over what range of price, the quantity demand will be inelastic ?

a) 100 to 600

b) 300 to 399
c) 500 to 3900
d) Zero to 3500

Q31. When C=200+0.75 (Y-T), I=200-25r,G=100. Find IS curve function.
a) Y=1700-100r
b) Y=1800-100r
c) Y=1900-100r
d) Y=1700+100r

Q32. Fisher's index is:
a) Harmonic mean of Laspeyre's and Pasche
b) Geometric mean of Laspeyre's and Pasche
c) Arithmetic mean of Laspeyre's and Pasche
d) None

Q33. The minimum rate at which the central bank rediscounts bill held by commercial banks is called:
a) Repo rate
b) CRR
c) Bank rate
d) Prime Lending rate

Q34. What is direct tax?
a) Paid by a person on whom it is imposed
b) Paid by a person on whom it is not imposed
c) Both 1 and 2
d) None of the above

Q35. When level of income is zero, what will you call the level of consumption?
a) Induced comsumption
b) Minimum
c) Related
d) Autonomous

Q36. The sequence $S_n = \frac{1}{1^1} + \frac{1}{2^2} + \cdots + \frac{1}{n^n} \forall n \in N$ is:
a) Oscillating
b) Convergent
c) Divergent
d) None of the above

Q37. Ms Sulekha is having income of ∩30.00 for consuming two goods Samosa and Jalebi whose prices are ∩ 10.00 and ∩2.00 per piece. What will be Sulekha's total price effect when her function is U = XY and the price of Samosa decreased to ∩ 5.00 per piece but the piece of Jalebi is remaining the same?
a) -5/6
b) -3/2
c) +5/7
d) none

Q38. Which policy is more effective in the Keynesian range of LM curve?
a) Fiscal
b) Monetary
c) Both fiscal and monetary
d) Neither fiscal and nor monetary

Q39. Calculate area under the curve xy=1, x=1 to x=e:

a) 1 unit
b) 2 unit
c) E unit
d) 0 unit

Q40. When Average Tax Rate (ATR) is more than Marginal Tax Rate (MTR) then it is:

a) Regressive tax
b) Progressive tax
c) Proportional tax
d) Degressive tax

Q41. What will be equilibrium income, when Lump Sum Tax (T) is added to the model and Consumption (C) is a function of disposable income (Y_d), give Y=C+I, $C=C_0+bY_d$, $I=I_0$, $Y_d=Y-T$, $C_0=100$, b=0.5, $I_0=40$, T=50.

a) 274
b) 298
c) 230
d) 653

Q42. The demand function for a good is Q = 36 -3P. what will be theoretically maximum Price (P) for Quantity (Q)?

a) 12
b) 3
c) 10
d) 112

Q43. What will happen when supply elasticity is less than demand elasticity?

a) Consumer burden will be less than producer burden
b) Consumer burden will be more than producer burden
c) Both will be equal
d) none

Q44. Offer curve introduced by Alfred Marshall deals with:

a) Terms of trade
b) Exchange rate
c) Money supply
d) money

Q45. What will be the second order direct partial derivative V_{XX} and V_{YY} respectively for given Cobb-Douglas function $V=4X^{0.4}Y^{0.5}$?

a) $0.98x^{-1.6}y^{0.5}, X^{0.4}Y^{-1.7}$
b) $0.96x^{-1.6}y^{0.5}, X^{0.4}Y^{-1.5}$
c) $0.196x^{-1.6}y^{1.5}, -X^{0.4}Y^{-1.5}$
d) $0.06x^{-3.6}y^{0.5}, -X^{0.4}Y^{-1.5}$

Q46. The long run supply elasticity for constant cost industry will be:

a) More than unity
b) Infinity
c) Zero
d) None

Q47. During the covid pandemic we observed the fall in the salary of 10 males of a given locality are found to be 70,50,62,68,61,68,70,33,64,40 in thousands. Is it reasonable to

believe that the average salary is greater than 64 in thousand? To test at 5% significance level to make the decision or conclusion about the hypothesis we will use the following?

a) Use one sided Hypothesis, Tabulated value of “t” should be less than calculated value.
b) Use two sided hypothesis, tabulated value of “t” should be less than calculated value.
c) Use one sided hypothesis, tabulated value of “t” should be greater than calculated value.
d) Use two sided hypothesis, tabulated value of “t” should be greater than calculated value.

Q48. A firm should investment when:

a) MEC < i
b) MEC = i
c) MEC > i
d) MEC = 1

Q49. When demand Q=300-5P and Supply Q=200+15P. If government imposes specific sales tax of ∩2.00 per unit, what will be new price?

a) 7.3
b) 6.5
c) 6.9
d) 5.9

Q50. A saddle point in the game theory refers to:

a) No loss
b) No profit
c) Outcome of strictly determined game
d) none