



Post Graduate School
Indian Agricultural Research Institute, New Delhi
Examination for Admission to Ph.D. Programme 2011-2012

Discipline : Agricultural Economics

Discipline Code : 02

Roll No.

Please Note:

- (i) This question paper contains 14 pages. **Please check whether all the pages are printed in this set.** Report discrepancy, if any, **immediately** to the invigilator.
- (ii) **There shall be NEGATIVE marking for WRONG answers in the Multiple Choice type questions (No. 1 to 130) which carry one mark each. For every wrong answer 0.25 mark will be deducted.**

PART - I (General Agriculture)

Multiple choice questions (No. 1 to 30). Choose the correct answer (a, b, c or d) and enter your choice in the circle (by shading with a pencil) on the OMR - answer sheet as per the instructions given on the answer sheet.

1. Which of the following crops have been approved for commercial cultivation in India?
 - a) Bt cotton and Bt brinjal
 - b) Bt cotton and Golden Rice
 - c) Bt maize and Bt cotton
 - d) Bt cotton only
2. This year (2010-11) the expected food grain production in India is
 - a) 212 million tonnes
 - b) 220 million tonnes
 - c) 235 million tonnes
 - d) 250 million tonnes
3. The genome of which of the following crops is still not completely sequenced?
 - a) Rice
 - b) Soybean
 - c) Sorghum
 - d) Wheat
4. According to the Approach Paper to the 12th Five Year Plan, the basic objective of the 12th Plan is
 - a) Inclusive growth
 - b) Sustainable growth
 - c) Faster, more inclusive and sustainable growth
 - d) Inclusive and sustainable growth
5. To address the problems of sustainable and holistic development of rainfed areas, including appropriate farming and livelihood system approaches, the Government of India has set up the
 - a) National Rainfed Area Authority
 - b) National Watershed Development Project for Rainfed Areas
 - c) National Mission on Rainfed Areas
 - d) Command Area Development and Water Management Authority
6. Which of the following sub-schemes are not covered under the Rashtriya Krishi Vikas Yojana?
 - a) Extending the Green Revolution to eastern India
 - b) Development of 60,000 pulses and oilseeds villages in identified watersheds
 - c) National Mission on Saffron
 - d) National Mission on Bamboo
7. The minimum support price for the common variety of paddy announced by the Government of India for the year 2010-11 was
 - a) ₹ 1030
 - b) ₹ 1000
 - c) ₹ 980
 - d) ₹ 950
8. According to the Human Development Report 2010 of the United Nations, India's rank in terms of the human development index is
 - a) 119
 - b) 134
 - c) 169
 - d) 182

9. Which of the following does not apply to SRI method of paddy cultivation?
- Reduced water application
 - Reduced plant density
 - Increased application of chemical fertilizers
 - Reduced age of seedlings
10. Which organic acid, often used as a preservative, occurs naturally in cranberries, prunes, cinnamon and cloves?
- Citric acid
 - Benzoic acid
 - Tartaric acid
 - Lactic acid
11. Cotton belongs to the family
- Cruciferae
 - Anacardiaceae
 - Malvaceae
 - Solanaceae
12. Photoperiodism is
- Bending of shoot towards source of light
 - Effect of light/dark durations on physiological processes
 - Movement of chloroplast in cell in response to light
 - Effect of light on chlorophyll synthesis
13. Ergot disease is caused by which pathogen on which host?
- Claviceps purpurea* on rye
 - Puccinia recondita* on wheat
 - Drechlera sorokiniana* on wheat
 - Albugo candida* on mustard
14. Rocks are the chief sources of parent materials over which soils are developed. Granite, an important rock, is classified as
- Igneous rock
 - Metamorphic rock
 - Sedimentary rock
 - Hybrid rock
15. Which one of the following is a *Kharif* crop?
- Pearl millet
 - Lentil
 - Mustard
 - Wheat
16. The coefficient of variation (C.V.) is calculated by the formula
- $(\text{Mean}/\text{S.D.}) \times 100$
 - $(\text{S.D.}/\text{Mean}) \times 100$
 - $\text{S.D.}/\text{Mean}$
 - $\text{Mean}/\text{S.D.}$
17. Which of the following is commonly referred to as muriate of potash?
- Potassium nitrate
 - Potassium chloride
 - Potassium sulphate
 - Potassium silicate
18. Inbred lines that have same genetic constitution but differ only at one locus are called
- Multi lines
 - Monohybrid
 - Isogenic lines
 - Pure lines
19. For applying 100 kg of nitrogen, how much urea would one use?
- 45 kg
 - 111 kg
 - 222 kg
 - 333 kg
20. The devastating impact of plant disease on human suffering and survival was first realized by epidemic of
- Brown spot of rice in Bengal
 - Late blight of potato in USA
 - Late blight of potato in Europe
 - Rust of wheat in India
21. The species of rice (*Oryza*) other than *O. sativa* that is cultivated is
- O. rufipugon*
 - O. longisteminata*
 - O. glaberrima*
 - O. nivara*
22. The enzyme responsible for the fixation of CO_2 in mesophyll cells of C-4 plants is
- Malic enzyme
 - Phosphoenol pyruvate carboxylase
 - Phosphoenol pyruvate carboxykinase
 - RuBP carboxylase
23. Which one of the following is a 'Vertisol'?
- Black cotton soil
 - Red sandy loam soil
 - Sandy loam sodic soil
 - Submontane (Tarai) soil
24. What is the most visible physical characteristic of cells in metaphase?
- Elongated chromosomes
 - Nucleus visible but chromosomes not
 - Fragile double stranded loose chromosomes
 - Condensed paired chromosomes on the cell plate

25. All weather phenomena like rain, fog and mist occur in
- Troposphere
 - Mesosphere
 - Ionosphere
 - Ozonosphere
26. Which of the following elements is common to all proteins and nucleic acids?
- Sulphur
 - Magnesium
 - Nitrogen
 - Phosphorous
27. Silt has intermediate characteristics between
- Sand and loam
 - Clay and loam
 - Loam and gravel
 - Sand and clay
28. Certified seed is produced from
- Nucleus seed
 - Breeder seed
 - Foundation seed
 - Truthful seed
29. Seedless banana is an
- Autotriploid
 - Autotetraploid
 - Allotriploid
 - Allotetraploid
30. Which one of the following is used to test the goodness-of-fit of a distribution?
- Normal test
 - t-test
 - Chi-square test
 - F-test
33. The degree of monopoly power as defined by Rothschild is based on
- Price elasticity of demand
 - Price cross-elasticity of demand
 - Slope of the demand curve of a firm and of the industry
 - Super-normal profit
34. A locus of constant utility is called the
- Expansion path
 - Utility function
 - Indifference curve
 - Demand function
35. Market performance is determined by
- Market structure only
 - Market conduct only
 - Either market structure or market conduct
 - Both market structure and market conduct
36. The break-even quantity of output can be determined by the formula
- $TFC/(P-AVC)$
 - $TFC/(AVC-P)$
 - $TFC/(P+AVC)$
 - $TFC/(TFC-AVC)$
37. A demand curve would not shift if there were changes in the
- Taste and preferences of consumers
 - Number or age distribution of buyers
 - Price of the good.
 - Expectations of consumers about the availability of the good
38. The economic rent earned by any factor will be the highest if its elasticity of supply is
- Zero
 - Equal to one
 - Infinity
 - Between one and infinity
39. Least cost production in the long run requires firms to adjust their resource mixes until the relative prices of resources are equal to the relative
- Prices of outputs
 - Total costs for each resources
 - Average productivity per resource
 - Marginal productivity of the resources
40. Under WTO in agriculture, all measures that directly support prices or subsidies related to production quantities are included in the
- Amber Box
 - Red box
 - Blue box
 - Green Box

PART – II (Subject Paper)

Multiple choice questions (No. 31 to 130). Choose the correct answer (a, b, c or d) and enter your choice in the circle (by shading with a pencil) on the OMR - answer sheet as per the instructions given on the answer sheet.

31. Giffen paradox occurs when income effect is
- Greater than the substitution effect
 - Equal to the substitution effect
 - Less than the substitution effect
 - Negative and is greater than the substitution effect
32. If the amounts of two commodities purchased change as the price of one of the two commodities changes, then the cross elasticity of demand between them will be
- Negative
 - Positive
 - Zero
 - One

41. Which of the following is a proposal contained in the Model APMC Act?
- Expansion of futures trading
 - Setting up of special marketing boards
 - Provision of direct sales to consumers
 - Setting up of special economic zones
42. Measures of long-term solvency of a business enterprise are collectively called
- Leverage ratios
 - Liquidity ratios
 - Turn-over ratios
 - Profitability ratios
43. Price discrimination allows a monopoly to
- Lower its marginal cost
 - Reduce its producer surplus
 - Raise its total revenue
 - Charge all customers a higher price
44. The marketing activity of dividing markets into smaller units with similar needs and characteristics is known as
- Market penetration
 - Relationship marketing
 - Target marketing
 - Market segmentation
45. Which of the following are not the affiliate bodies of World Bank?
- IMF
 - IDA
 - IFC
 - ADB
46. In the second stage of law of diminishing returns, the elasticity of production (E_p) is
- $E_p > 1$
 - $E_p < 1$
 - $E_p = 0$
 - $E_p < 0$
47. An equation of a system is exactly identified if the number of excluded exogenous variables from the equation is
- Equal to the number of endogenous variables in the equation minus 1
 - Smaller than the number of endogenous variables in the equation minus 1
 - Greater than the number of endogenous variables in the equation minus 1
 - All of the above
48. Short-term supply curve of milk can be altered by
- Purchasing more cows
 - Changing feed mix
 - Processing the milk
 - Technological change
49. Family labour income is equal to
- Gross income – Cost A_1
 - Farm business income – wages of family labour
 - Gross income – Cost C_2
 - Gross income – Cost B_2
50. GNP deflator is
- Nominal GNP/nominal GDP
 - Nominal GNP/real GNP
 - Nominal GNP/real GDP
 - Real GNP/nominal GDP
51. The identification problem of the simultaneous equation systems relates to
- Method of estimation
 - Sample size
 - Meaningful estimate of structural coefficients
 - All of the above
52. The determinant of the matrix $\begin{pmatrix} a-b & a \\ a & a+b \end{pmatrix}$ is
- b^2
 - $-b^2$
 - a^2
 - $-a^2$
53. Let $A = \begin{pmatrix} 1 & 2 \\ 4 & -3 \end{pmatrix}$ then A^2 is
- $\begin{pmatrix} 9 & -4 \\ -8 & 17 \end{pmatrix}$
 - $\begin{pmatrix} 9 & 4 \\ 8 & 17 \end{pmatrix}$
 - $\begin{pmatrix} -4 & 9 \\ 17 & 8 \end{pmatrix}$
 - $\begin{pmatrix} 5 & 16 \\ 4 & 7 \end{pmatrix}$
54. The substitution effect for a fall in the price of a commodity (*ceteris paribus*) is given by
- A movement up a given indifference curve
 - A movement from a higher to a lower indifference curve
 - A movement down a given indifference curve
 - Any of the above
55. Type I error is
- Rejecting H_0 when H_0 is true
 - Accepting H_0 when H_0 is false
 - Accepting H_0 when H_0 is true
 - Rejecting H_0 when H_0 is false

56. Presence of multicollinearity between the explanatory variables is detected by
- Durbin-Watson test
 - Farrar-Glauber test
 - Chi-square test
 - Coefficient of multiple determination
57. If the correlation coefficient between X and Y is 0.50, what percentage of the total variation remains unexplained by the regression equation?
- 25%
 - 50%
 - 75%
 - 100%
58. Which of the following is not the correct expression for coefficient of determination?
- $\frac{ESS}{TSS}$
 - $1 - \frac{RSS}{TSS}$
 - $\frac{b\sum xy}{\sum y^2}$
 - $1 - \frac{\sum y^2/n}{\sum e^2/n}$
59. Which of the following is a positive statement?
- The govt. must lower the prices of bread so that more consumers can afford to buy it
 - The best level of taxation is zero per cent because then people get to keep every thing they want
 - An increase in college tuition will cause fewer students to apply to college
 - Economic theory course should last for two terms because it is a very important subject
60. If demand is inelastic, a shift of supply curve rightward will
- Decrease total revenue
 - Increase total revenue
 - Have no effect on total revenue
 - Reduce the demand for the product
61. All normal goods have
- Income elasticity of demand greater than 1.0
 - Price elasticity of demand greater than 1.0
 - Negative price elasticity of demand
 - Positive income elasticity of demand
62. The difference between the maximum amount consumers are willing to pay and the amount they actually do pay for a given quantity of good is called
- Dead weight surplus
 - Consumer surplus
 - Producer surplus
 - Total surplus
63. A feature of labour supply curve is that, unlike most supply curves, it
- is always positively sloped
 - is always negatively sloped
 - May bend backwards
 - None of the above
64. Suppose the government taxes a product. The decrease in quantity consumed will be smaller when
- The elasticity of demand is higher
 - The elasticity of demand is lower
 - Elasticity of demand has nothing to do with quantity demanded
 - More information is needed to answer it
65. When the elasticity of demand of a product is less than the elasticity of its supply, it results in Cobweb phenomena of the following type
- Perpetual oscillation
 - Damped oscillation
 - Explosive oscillation
 - Both a) & b)
66. The relationship between rate of interest and the level of income at which the money market is in equilibrium is described by
- LM function
 - Production function
 - IS function
 - Cost function
67. The type of isoquant which represents perfect substitutability of factors of production is
- Leontief isoquant
 - Convex isoquant
 - Linear isoquant
 - Kinked isoquant
68. Gross National Product (GNP) is given by which of the following?
- Personal consumption expenditure (C) + Gross domestic private investment (I) + Net foreign investment (X-M) + Government expenditure on goods and services (G)
 - Net national product (GNP) – Indirect taxes + Subsidies
 - National income – Social security contributions – Corporate income taxes – Undistributed corporate profits + Transfer payments
 - Rents + Interests + Profits of unincorporated firms + Dividend + Undistributed corporate profits + Corporate taxes + Indirect taxes + Depreciation – Transfer payments

69. Which of the following does not represent the elasticity of production E_p ?
- $\frac{\Delta Y/Y}{\Delta X/X}$
 - MPP/APP
 - $\frac{\Delta Y \times X}{\Delta X \times Y}$
 - $MPP \times APP$
70. The capital using technological progress
- Increases MP_K proportionately more than MP_L
 - Increases the absolute slope of the isoquant
 - Reduces K but increases L to produce a given level of output
 - All of the above
71. An autonomous decrease in investment causes the IS schedule to shift
- Leftward by the change in investment
 - Rightward by the change in investment
 - Rightward by the change in investment times the expenditure multiplier
 - Leftward by the change in investment times the expenditure multiplier
72. Liquidity preference theory states that the liquidity preference by the people depends on
- Transactions motive
 - Precautionary motive
 - Speculative motive
 - All of the above
73. The Philips curve shows
- An inverse relationship between the rate of inflation and the rate of unemployment
 - A direct relationship between the rate of inflation and the rate of unemployment
 - An inverse relationship between the rate of inflation and the level of employment
 - An inverse relationship between the price level and the level of employment
74. A farmer has four items (i.e., machinery, livestock, farm building and land) to offer as security for loan. Which of these could be offered as security if the farmer is taking the loan against collateral security?
- Farm building and land both
 - Machinery and livestock both
 - Farm building alone
 - Machinery alone
75. Profit differs from other kinds of income because
- It is uncertain and may be negative
 - It is a contractual income
 - It is a reward for ability
 - It is a surplus
76. In economics, rent is
- The payment for land
 - A surplus payment necessary to keep a factor in its present employment
 - The reward paid to the landlords
 - The payment made for the hire of land and buildings
77. What are the terms of trade?
- The price of imports in terms of exports
 - The difference between visible imports and visible exports
 - The difference between total imports and exports
 - The difference in the foreign exchange rates of different currencies
78. Which of the following types of unemployment is caused by the immobility of labour?
- Seasonal
 - Cyclical
 - Frictional
 - Structural
79. When both the duopolists in an industry act as followers and no one acts as a leader, it leads to a
- Cournot solution
 - Quasi-competitive solution
 - Stackelberg solution
 - Collusion solution
80. The distribution of the form
- $$P = \frac{1}{1 - e^{-(a+bt)}}$$
- is known as
- Poisson distribution
 - Gamma distribution
 - Normal distribution
 - Logistic distribution
81. Allocative efficiency of any enterprise is also known as
- Operational efficiency
 - Economic efficiency
 - Technical efficiency
 - Price efficiency
82. IS curve has _____ slope and shows equilibrium in _____ market.
- Positive, goods
 - Positive, money
 - Negative, goods
 - Negative, money

83. The 'L' shaped isoquants represent
- Fixed proportion combination of inputs
 - Constant rate of substitution
 - Increasing rates of substitution
 - Decreasing rates of substitution
84. Economic efficiency is highest under
- Perfect competition
 - Monopoly
 - Monopolistic completion
 - Oligopoly
85. Kinked demand curve is used to show
- Welfare under oligopoly
 - Price rigidity under oligopoly
 - Market share under duopoly
 - Profit maximisation under duopoly
86. If the assumption of OLS ($E(X\mu) \neq 0$) is not fulfilled, then the estimates are
- Not biased
 - Biased
 - Inconsistent
 - Biased and inconsistent
87. The classical book on "Economics of Agricultural Production and Resource Use" is written by
- G.E. Foster
 - W.W. Wilcox
 - T.W. Schultz
 - Earl O. Heady
88. Which one of the following is not a component of a market?
- The existence of goods or commodity
 - The existence of buyers and sellers
 - Business relationship between buyers and sellers
 - Existence of a uniform price
89. Use of transfer payments as a policy instruments is made for
- Bringing about income redistribution
 - Reducing private consumption
 - Increasing private consumption
 - Increasing gross national product
90. When a price index increases from 125 to 150, the value of money
- Increases 25%
 - Decreases 25%
 - Increases 20%
 - Decreases 20%
91. A bank must maintain adequate liquidity
- To meet the loan demand of customers and minimize loan default
 - To explain transaction deposits whenever there is a deficiency of secondary reserves
 - To meet loan demand and outflow of deposits
 - To meet the currency requests of depositors and conversion of loans into secondary reserves
92. Fiscal Policies are highly effective in
- Keynesian range of LM curve
 - Classical range of LM curve
 - Intermediate range of LM curve
 - Both Keynesian and classical range of LM curve
93. In order to achieve the maximum gains from trade, producer should specialize according to
- Production possibility frontier
 - Absolute advantage
 - Comparative advantage
 - Property rights
94. The 'e' is the elasticity of demand for the product of a monopolist then the ratio P/MR is given by
- $e-1/e$
 - $e/e-1$
 - $e-1/e+1$
 - $e+1/e-1$
95. Quasi Rent is equal to
- Revenue minus cost
 - Revenue minus fixed cost
 - Revenue minus variable cost
 - Revenue minus normal profit
96. Harrod-Domar model of economic growth is based on the experiences of
- Under-developed economies
 - Developing economies
 - Advanced capitalist economies
 - Socialist economies
97. According to Hicks, an invention is said to be neutral when it raises
- The average products of labour and capital in the same proportion
 - The marginal products of labour and capital in the same proportion
 - The wage rate and interest rate in the same proportion
 - None of the above

98. Which of the following is not a characteristic of market performance?
- Relative technical efficiency of production
 - Degree of buyer concentration
 - Size of industry output
 - Profit margin
99. A "Bonded warehouse" is
- A warehouse owned by a private business for storage of their own goods
 - A warehouse owned by a private business for storage of products of other businesses
 - A public warehouse
 - A warehouse at an air or seaport where imported goods are stored until customs duties are paid
100. Among the following economists, who has advocated the technique of unbalanced growth?
- A.O. Hirschman
 - Paul A. Samuelson
 - H.D. Henderson
 - J.M. Keynes
101. The simplex algorithm for solving linear programming models was invented by
- G.B. Dantzig
 - T.C. Koopmans
 - G. Tintner
 - E.O. Heady
102. Moving average method is used to eliminate
- Cyclical variations
 - Seasonal variations
 - Secular variations
 - Irregular variations
103. In case of a linear demand function, the slope of the marginal revenue curve derived from it will be
- Only half of the demand curve
 - Equal to that of the demand curve
 - Twice that of the demand curve
 - Thrice that of the demand curve
104. If the price-consumption curve for a commodity has a positive slope, its elasticity of demand would be
- Equal to one
 - Less than one
 - Greater than one
 - Greater than two
105. The rate of discount (r) at which the present value of the cost stream of a project just equals to the present value of its returns is termed
- Net present value
 - Return on investment
 - Internal rate of return
 - Desired discount rate
106. Which of the following statements with regard to NABARD is not correct?
- It gives direct finance for agricultural rural development
 - It plays a key role in programmes of rural development
 - It finances agriculture and village industries through the cooperative banks and commercial banks
 - It directly loans to farmers and artisans
107. If two events A & B are independent, the probability that both of these will occur is given by
- $P(A) + P(B)$
 - $P(A) \times P(B)$
 - $P(A) \times P(B) + P(AB)$
 - $P(A) - P(B)$
108. The product moment correlation coefficient is obtained by the formula
- $r = \Sigma XY/xy$
 - $r = \Sigma xy/N\sigma_x\sigma_y$
 - $r = \Sigma xy/N\sigma_x$
 - $r = \Sigma x\Sigma y/\sigma_x\sigma_y$
109. The elasticity in respect of speculative demand for money under the liquidity trap condition is
- Infinite
 - Zero
 - One
 - Greater than one
110. When the intrinsic value of money and its face value are equal, it is called
- Token money
 - Full-bodied money
 - Quasi-money
 - Flat money
111. Which one is not economic motive of holding a stock of money?
- Transaction motive
 - Precautionary motive
 - Speculative motive
 - Black money motive
112. The major quantitative monetary tool available with central bank is
- Rationing credit
 - Margin requirements
 - Reserve ratio requirements
 - Regulation of consumer credit
113. The most important asset of a commercial bank is its
- Demand deposits
 - Government securities
 - Negotiable stocks and bonds
 - Loans to businessmen, industry etc.

114. The Hindu rate of growth
- Refers to growth of Hindu population
 - is the term used by Raj Krishna to represent the nature of growth of the Indian economy at around 3.5 percent per year
 - is the term coined by Amartya Sen to represent the nature of the growth of Indian economy at a round 3.5 percent per annum
 - is the term coined by V.K.R.V. Rao to decide the nature of the growth of the Indian economy at around 4 percent
115. Economic development with unlimited supplies of labour is a model of development enunciated by
- A.O. Hirschman
 - W.W. Rostow
 - W.A. Lewis
 - Halis Chenery
116. According to Simon Kuznets, during process of development, the income inequalities tend to
- Decrease
 - Increase
 - Decrease first and then increase
 - Increase first and then decrease
117. The expected monetary value criterion is used for decision-making under situations of
- Risk
 - Uncertainty
 - Certainty
 - Both risk and uncertainty
118. The inflationary gap measures
- The difference between the expected and actual rates of inflation
 - The excess of aggregate demand over the full-employment level
 - The increase in gap between the rich and the poor as a result of inflation
 - All of the above
119. How many "ridge lines" can be drawn in a particular isoquant-map?
- One
 - Two
 - Equal of the number of isoquants
 - Infinite
120. In his revised demand theory, Hicks assumes the consumer's preferences to have
- Strong ordering
 - Weak ordering
 - Indifference relations
 - None of the above
121. When we change the C_j coefficients in the objective function of a Linear Programming problem then it is called
- Capital variable programming
 - Resource variable programming
 - Price variable programming
 - Input-output variable programming
122. Equilibrium occurs in a two-sector model when
- Saving equals investment
 - Consumption plus investment equals the value of output
 - Planned saving equals planned investment
 - Aggregate spending equals the revenues of the business sector
123. The line joining points of consumer equilibrium resulting when only the consumer's income is varied is called the
- Demand curve
 - Income-consumption curve
 - Engel curve
 - Price-consumption curve
124. In Keynesian theory, investment demand depends upon
- Marginal efficiency of capital
 - The rate of interest
 - Both a) and b)
 - None of the above
125. The feasible region of a linear programming problem is
- A concave set
 - A convex set
 - A null set
 - None of the above
126. The integral of 1 is
- Zero
 - x
 - 1+x
 - 1-x
127. In computing the mean of 1000 numbers, a number is wrongly written as 14 instead of its true value 41. The correct mean
- is 0.027 more than the wrong mean
 - is 0.27 more than the wrong mean
 - is 0.0027 more than the wrong mean
 - Cannot be calculated on the basis of the information provided
128. Risk can be measured in terms of
- Standard deviation
 - Mode
 - Mean
 - Correlation coefficient

129. Full employment without inflation can exist if aggregate demand is

- a) Less than actual GNP
- b) Equal to actual GNP
- c) Less than potential GNP
- d) Equal to potential GNP

130. According to permanent income hypothesis, all increases in

- a) Permanent income are saved
- b) Permanent income are consumed
- c) Transitory income are saved
- d) Transitory income are consumed

Matching type questions (No. 131 to 140); all questions carry equal marks. Choose the correct answer (a, b, c, d or e) for each sub-question (i, ii, iii, iv and v) and enter your choice in the circle (by shading with a pencil) on the OMR - answer sheet as per the instructions given on the answer sheet.

131.

- | | |
|-------------------------|---|
| i) Heteroscedasticity | a) The value of explanatory variables include measurement error |
| ii) Multicollinearity | b) Inclusion or exclusion of relevant explanatory variables in the model |
| iii) Autocorrelation | c) Variance of the error term changes with the value of explanatory variables |
| iv) Errors in variables | d) Explanatory variables are highly correlated |
| v) Specification error | e) Error terms of different time periods are correlated |

132.

- | | |
|---|--|
| i) Principle of variable proportions | a) Recovery of fixed cost |
| ii) Principle of opportunity cost | b) $\frac{\Delta X_1}{\Delta X_2} = \frac{P_2}{P_1}$ |
| iii) Principle of substitution between inputs | c) $\frac{MVP_1}{P_1} = \frac{MVP_2}{P_2}$ |
| iv) Time comparison principle | d) $MC = MR$ |
| v) Break even point | e) Net present value |

133. Match the term with the person who first propounded or closely associated

- | | |
|-------------------------------------|---------------------|
| i) Unlimited supplies of labour | a) Harris Todaro |
| ii) Migration and unemployment | b) Arthur Lewis |
| iii) Critical minimum effort theory | c) Rosenstein Rodan |
| iv) Big push model | d) Leibenstein |
| v) Spread effect | e) Myrdal |

134. Match the term with its appropriate definition

- | | |
|-------------------------|--|
| i) Luxury goods | a) Goods for which the income elasticity of demand is negative |
| ii) Normal goods | b) Goods for which the cross price elasticity of demand is negative |
| iii) Inferior goods | c) Goods for which the income elasticity of demand is positive and greater than one |
| iv) Complementary goods | d) Goods for which the income elasticity of demand is positive |
| v) Substitute goods | e) Goods for which the cross price elasticity of demand is positive and greater than one |

135.

- | | |
|--|------------------------|
| i) If $e_p=0$, the demand is | a) Elastic |
| ii) If $e_p=1$, the demand is | b) Inelastic |
| iii) If $e_p=\infty$, the demand is | c) Perfectly elastic |
| iv) If $0 < e < 1$, the demand is | d) Unitary elastic |
| v) If $1 < e < \infty$, the demand is | e) Perfectly inelastic |

136.

- | | |
|--------------------------------|-----------------|
| i) Stages of Economic Growth | a) Harrod model |
| ii) Investment Multiplier | b) Lewis model |
| iii) Warranted rate of growth | c) J.M. Keynes |
| iv) Total agricultural surplus | d) J.M. Clark |
| v) Acceleration Principle | e) W.W. Rostow |

137.

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|------------------------------|-----------------------------------|
| i) Equimarginal utility | a) Optimum resource use |
| ii) Input substitution rates | b) Expansion path |
| iii) Marginal value product | c) Least cost combination |
| iv) Equimarginal returns | d) Consumer's equilibrium |
| v) Isoclines | e) Optimum enterprise combination |

138.

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|-----------------------------------|---------------------------------------|
| i) Factor-product relationship | a) Factors substitution |
| ii) Factor-factor relationship | b) Physical input-output relationship |
| iii) Product-product relationship | c) Production possibility curve |
| iv) Constraint relationship | d) Lagrangian multiplier |
| v) Profit maximisation condition | e) Expansion path |

139.

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|---|----------------|
| i) General Theory of Employment, Interest and Money | a) W.A. Lewis |
| ii) Wealth of Nations | b) G.K. Myrdal |
| iii) Das Capital | c) J.M. Keynes |
| iv) Asian Drama | d) Karl Marx |
| v) Theory of Economic Growth | e) Adam Smith |

140.

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|--|---|
| i) 1 st Five Year Plan mainly aimed at | a) Achievement of self-reliance and growth with stability |
| ii) II nd Five Year Plan mainly aimed at | b) Generating employment and eradication of poverty |
| iii) IV th Five Year Plan mainly aimed at | c) Achieving agricultural development and solving food crisis |
| iv) V th Five Year Plan mainly aimed at | d) Rapid industrialization |
| v) X th Five Year Plan mainly aimed at | e) Achievement of MNP and vigorous export promotion |

Short questions (No. 141 to 146); each question carries FIVE marks. Write answers, including computation / mathematical calculations if any, in the space provided for each question on the question paper itself.

141. What is meant by autocorrelation? Why is autocorrelation a problem?

142. Explain the relationship between elasticity of demand and the Keynesian concept of propensity to consume.

143. Explain the essential conditions for price discrimination.

144. What are different methods of measuring Gross National Product (GNP)? Also mention the major conceptual problems in the estimation of GNP.

145. The perfectly competitive firm exhibits resource allocation efficiency ($P=MC$) and a single price monopolist does not. What is the reason for this difference?

146. Explain the Cob-Web phenomenon in prices of agricultural goods.