

**ENTRANCE EXAMINATION FOR ADMISSION, MAY 2011.**

**M.Phil./Ph.D. (ECONOMICS)**

**COURSE CODE : 246/108**

Register Number :

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*Signature of the Invigilator*  
*(with date)*

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**COURSE CODE : 246/108**

Time : 2 Hours

Max.: 400 Marks

*Instructions to Candidates :*

1. Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.
2. Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.
3. Read each question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.
4. Avoid blind guessing. A wrong answer will fetch you -1 mark and the correct answer will fetch 4 marks.
5. Do not write anything in the question paper. Use the white sheets attached at the end for rough works.
6. Do not open the question paper until the start signal is given.
7. Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.
8. On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.
9. Use of Calculators, Tables, etc. are prohibited.

1. The measure of gross domestic products
  - (A) includes intermediate inputs
  - (B) includes residents income from abroad
  - (C) includes indirect taxes
  - (D) excludes intermediate inputs
  
2. Gross national product is
  - (A) net national product plus depreciation
  - (B) net national product minus depreciation
  - (C) net national product minus indirect taxes
  - (D) none of the above
  
3. In the classical model, the price elasticity of aggregate supply is
  - (A) close to infinity
  - (B) unity
  - (C) less than unity
  - (D) zero
  
4. In the classical model, aggregate supply curve shifts outward in response to
  - (A) increase in employable work force
  - (B) increase in productivity of labour
  - (C) increase in the stock of capital
  - (D) all are true
  
5. The supply of labour is increasing function of
  - (A) real wages
  - (B) nominal wages
  - (C) inflation
  - (D) all are true
  
6. The interest elasticity of speculative demand for money at Liquidity trap is
  - (A) unity
  - (B) more than unity, but less than infinity
  - (C) infinity
  - (D) zero
  
7. According to Keynes, income
  - (A) does not affect speculative demand for money
  - (B) does affect transaction demand for money
  - (C) does affect precautionary demand for money
  - (D) all are true

8. The quantity theory equation implies that
- (A) inflation equals to growth rate of money supply
  - (B) neutrality of money
  - (C) dichotomy of monetary and real sector
  - (D) all are true
9. According to Milton Friedman, consumption expenditure is significantly influenced by
- (A) transitory income
  - (B) permanent income
  - (C) a temporary tax cut
  - (D) all are true
10. An increase in the commercial banks desired level of excess reserves tends to
- (A) increase money multiplier
  - (B) decrease money multiplier
  - (C) increase income multiplier
  - (D) increase tax multiplier
11. If marginal propensity to consume is 0.6, then the multiplier is
- (A) 4
  - (B) 6
  - (C) 2.5
  - (D) 0.4
12. Assume that government finances its increased expenditure of Rs. 100 cr through a lump sum tax and the marginal propensity to consume is 0.8. If so, income increases by Rs.
- (A) 500 cr
  - (B) 800 cr
  - (C) 700 cr
  - (D) none of the above
13. Let  $b$  and  $c$  be marginal propensity to save and to consume respectively
- (A)  $b < 1$  if  $c > 1$
  - (B)  $b = 0$  if  $c < 0$
  - (C)  $b < 1$  if  $c < 1$
  - (D) none of the above
14. An increase in marginal propensity to import
- (A) reduces multiplier
  - (B) increases multiplier
  - (C) does not affect multiplier
  - (D) none of the above
15. If income increases, according to Keynes, the average propensity to consume
- (A) increases
  - (B) falls
  - (C) remains constant
  - (D) none of the above

16. Kuznet consumption puzzle refers to
- (A) constant marginal propensity when there is a rise in income over time
  - (B) constant marginal propensity to save when there is a rise in income over time
  - (C) constant average propensity consume when there is a rise in income over time
  - (D) all are true
17. The IS curve is steeper if interest elasticity of
- (A) investment demand is close to infinity
  - (B) investment demand is close to zero
  - (C) money demand is close to zero
  - (D) money demand is close to infinity
18. A Flat LM curve implies that interest elasticity of
- (A) investment demand is close to infinity
  - (B) investment demand is close to zero
  - (C) money demand is close to zero
  - (D) money demand is close to infinity
19. Crowding-out effect is stronger if
- (A) investment is more interest elastic
  - (B) investment is less interest elastic
  - (C) investment is interest inelastic
  - (D) None of the above
20. Monetary policy is least effective if
- (A) LM curve is vertical and IS curve is horizontal
  - (B) LM curve is horizontal and IS curve is vertical
  - (C) LM curve is horizontal and IS curve is downward sloping
  - (D) LM curve is upward sloping and IS curve is downward sloping
21. When the conditional variance of the Y population varies with X. This situation is known as
- (A) Homoscedasticity
  - (B) Heteroscedasticity
  - (C) Autocorrelation
  - (D) Multicollinearity

22. The precision of the estimators can be measured by  
 (A) Variance (B) Standard Deviation  
 (C) Standard Error (D) Mean
23. The range of  $R^2$  lies between  
 (A) -1 and +1 (B) 0 and +1  
 (C) -1 and 0 (D) None of the above
24. The coefficient of correlation  $r$  is a  
 (A) Casual relationship between two variables  
 (B) Functional relationship between two variables  
 (C) Linear association between two variables  
 (D) None of the above
25. The ML method is called a  
 (A) Small sample method (B) Large sample method  
 (C) Both (A) and (B) (D) None of the above
26. Growth rate is usually measured by  
 (A) Linear model (B) Double log model  
 (C) Translog model (D) 2SLS model
27. Econometric Analysis makes use of  
 (A) Deterministic relationship (B) Statistical relationship  
 (C) Autocorrelated relationship (D) None of the above
28. The term multicollinearity is due to  
 (A) Marshall (B) Arrow  
 (C) Pigou (D) Ragnar Frisch
29. Glejser test is used to deduct  
 (A) Multicollinearity (B) Heteroscedasticity  
 (C) Autocorrelation (D) Correlation
30. High degree of association between successive error term is known as  
 (A) Heteroscedasticity (B) Multicollinearity  
 (C) Autocorrelation (D) Homoscedasticity

31. Adjusted  $R^2$  is normally associated with
- (A) Degrees of freedom
  - (B) Degrees of error
  - (C) Explanatory power of simultaneous equation model
  - (D) None of the above
32. In the normal curve, the value of skewness is
- (A) 0
  - (B) 3
  - (C) -1
  - (D) +1
33. First Difference technique is used to solve the problem of
- (A) Autocorrelation
  - (B) Multicollinearity
  - (C) Heteroscedasticity
  - (D) Errors in variables
34.  $R^2$  is
- (A) Always greater than  $R^2$
  - (B) Always positive
  - (C) Can never be indeterminate
  - (D) None of the above
35. In a regression model of the form  $Y = \alpha + \beta X + U$ , one can come to a conclusion that X does not influence Y at all if
- (A)  $\alpha = 0$
  - (B)  $\beta \neq 0$
  - (C)  $\beta = 0$
  - (D)  $1/\beta = -1$
36. A scatter diagram
- (A) is a statistical test
  - (B) must be linear
  - (C) must be curvilinear
  - (D) is a graph of x and y values
37. The correlation co-efficient appropriate for establishing the degree of correlation between the two variables assuming a linear relationship
- (A) is determined by the sample size
  - (B) is Spearman's R
  - (C) is Pearson's 'r'
  - (D) none of the above
38. Method of least squares is based on the principle of
- (A) Sum of residuals is equal to zero
  - (B) Sum of squares of residuals is least
  - (C) Both (A) and (B)
  - (D) None of the above
39. If one regression co-efficient is greater than unity, then the other must be
- (A) equal to zero
  - (B) less than unity
  - (C) equal to unity
  - (D) greater than unity

40. The regression lines cut each other at the point of  
 (A) average of  $x$  and  $y$  only (B) average of  $y$  only  
 (C) the median of  $x$  and  $y$  (D) none of these
41. The regression lines are coincident provided  
 (A)  $r = 0$  (B)  $r = 1/3$  (C)  $r = -1/2$  (D)  $r = \pm 1$
42. Regression of  $Y$  on  $X$  is  
 (A) used to explain the variation in the value of  $X$  for changes in  $Y$   
 (B) used to explain the variation in the value of  $Y$  for changes in  $X$   
 (C) used to explain the variations in the value of  $Y$  for no change in  $X$   
 (D) None of the above
43.  $E(X+Y) =$   
 (A)  $E(X) = E(Y)$  (B)  $E(X) - E(Y)$   
 (C)  $E(Y) - E(X)$  (D) None of the above
44. Which of the following properties does not belong to a position distribution?  
 (A) Mean and variance are same  
 (B) It is a discrete probability distribution  
 (C) Mean = Median = Mode  
 (D) The third moment is equal to mean
45. The standard normal curve has the parameter  
 (A)  $(\mu, \sigma^2)$  (B)  $(0, 1)$   
 (C)  $(1, 0)$  (D) None of the above
46. The size of the small sample is  
 (A)  $n \leq 30$  (B)  $n > 30$  (C)  $n < 30$  (D) All the above
47. Which of this is a non-random sampling method?  
 (A) systematic sampling (B) stratified sampling  
 (C) quota sampling (D) multi stage sampling
48. Exponential curve denotes the functional form  
 (A)  $y = a + bx$  (B)  $y = ab^t$  (C)  $y = a$  (D)  $y = bx$

49. Data arranged according to time are called  
 (A) cross-section data (B) panel data  
 (C) time-series (D) none of the above
50. If A and B are mutually exclusive events then  $P(AB)$  is  
 (A) 1 (B)  $\infty$  (C) 0 (D) none of these
51. If we denote by  $E_1E_2$  the event "both  $E_1$  and  $E_2$  occur" sometimes called a  
 (A) compound event (B) independent events  
 (C) dependent events (D) none of the above
52. For Normal Distribution, the moment co-efficient of Kurtosis i.e.,  $\beta_2$  is equal to  
 (A) 2 (B) 3  
 (C) 1 (D) None of the above
53. The  $\beta_1$  for the Poisson distribution is  
 (A)  $1/\sqrt{m}$  (B)  $1/2 m$   
 (C)  $1/m$  (D) none of the above
54. Logistic curve refers to the functional form  
 (A)  $y = k/1+e^{bt}$  (B)  $y = k/1+e^{a+bt}$  (C)  $y = k/e^{bt}$  (D)  $y = k/e^{a+bt}$
55. The formula for Binomial distribution is  
 (A)  $n \binom{n-r}{c} p^r q^{n-r}$  (B)  $n \binom{n-r}{c} p^{n-r} q^r$   
 (C)  $n \binom{n-r}{c} p^r q^r$  (D) none of the above
56. If  $Q_d = a - bp$  and  $Q_s = -c + dp$ , then the equilibrium quantity  $Q$  is  
 (A)  $ad + bc / b + d$  (B)  $a + c / b + d$  (C)  $ad - bc / b + d$  (D)  $a - c / b + d$
57. A function such as  $Y = x - 1 / x^2 + 2x + 4$  is a  
 (A) Linear function (B) Rational function  
 (C) Quadratic function (D) Cubic function

58.  $(A^T)^T = ?$   
 (A)  $A^T$  (B)  $A^{-1}$  (C)  $A$  (D)  $1/A^T$
59. If for a given matrix  $A$ ,  $|A| = 0$ , then the matrix  $A$  is said to be  
 (A) singular (B) non-singular  
 (C) both (A) and (B) (D) None of the above
60. If  $y=3x^2-4$ , then  $dy/dx = ?$   
 (A)  $3x$  (B)  $2x$  (C)  $3x-4$  (D)  $6x$
61. If  $q = 2+v^2$  then  $\lim_{v \rightarrow 0} q$  is equal to  
 (A) 2 (B)  $2 + 2v$  (C)  $2v$  (D) 4
62. The variance of a constant function  $y = f(x) = k$  is  
 (A) one (B) zero  
 (C)  $\infty$  (D) none of the above
63. Given a short-run total cost function  $C = Q^3 - 4Q^2 + 10Q + 75$ , then the marginal cost function is  
 (A)  $Q^2 - 8Q + 10$  (B)  $3Q^2 - 8Q + 10$  (C)  $Q^2 + 10$  (D)  $2Q - 8Q^2$
64. If  $AR = 15-Q$ , then the total revenue (TR) function is  
 (A)  $15-Q^2$  (B)  $15Q-Q$  (C)  $15Q-Q^2$  (D)  $15+Q^2$
65. If  $z = y-3$  where  $y = x^3$ , then  $dz/dx$  is equal to  
 (A)  $3x^2$  (B)  $x^2$  (C)  $3x$  (D) 3
66. Given  $y = x^5 + x$  then  $dx/dy$  is equal to  
 (A)  $5x^4+1$  (B)  $5x^4$   
 (C)  $1/5x^4+1$  (D) none of the above
67. The formula for the point elasticity of  $y$  with respect to  $x$  is  
 (A) Marginal function/Average function (B) Average function/Marginal function  
 (C) Both (A) and (B) (D) None of the above
68. A function  $y = f(x) = 3x^4$  is called an  
 (A) Implicit function (B) Inverse function  
 (C) Explicit function (D) Linear function

69. For a relative maximum, the second derivate at  $x_0$  is  
 (A)  $f''(x_0) < 0$  (B)  $f''(x_0) > 0$   
 (C)  $f''(x_0) = 0$  (D) None of the above
70.  $d/dt A e^{rt}$  is equal to  
 (A)  $A e^{rt}$  (B)  $r A e^{rt}$  (C)  $e^{rt}$  (D)  $1/e^{rt}$
71.  $\log_{10} 1000 = ?$   
 (A) 2 (B) 1 (C) 3 (D) 0
72. According to Young's theorem, which of the following is true  
 (A)  $f_{xy} = f_{yx}$  (B)  $f_{xx} = f_{yy}$   
 (C)  $f_x = f_y$  (D) None of the above
73.  $\int 1/x dx = ?$   
 (A)  $\log x$  (B)  $\log x + c$   
 (C)  $x + e$  (D) none of the above
74.  $\int_a^b f(x) dx = ?$   
 (A) One (B) Zero  
 (C) Infinity (D) None of the above
75. Which one of the following statements is correct?  
 (A) A firm's long-run average cost curve is derived from a series of short-run Average cost curves  
 (B) There is no relationship between short-run and long-run average cost curves  
 (C) A firm's short-run average cost curve is derived from its long-run average cost-Curve  
 (D) Long-run total cost is the sum of long-run fixed and long-run average costs.
76. Which one of the following is represented by a rectangular hyperbola?  
 (A) Average fixed cost curve (B) Average variable cost drive  
 (C) Production possibility curve (D) Expansion path

77. In the Cobb-Douglas production function of the form,  $X = b_0 L^{b_1} K^{b_2}$ , which one of the following is correct? (X=output, L=labour and K=capital)
- (A) Elasticity of substitution is equal to unity
  - (B) Factor-intensity is measured by the ratio,  $b_1 / b_2$
  - (C) Organisational and entrepreneurial efficiency is measured by  $b_0$
  - (D) All of these
78. Suppose a consumer is consuming two somewhat substitutable goods X and Y and the price of X increases. What is the nature of consumer's demand for X if he decreases his expenditure on X?
- (A) Unitary elastic
  - (B) Perfectly inelastic
  - (C) Elastic
  - (D) Inelastic
79. Which one of the following is not the basic assumption of indifference curve approach of consumer theory?
- (A) Consumer is able to set up preference ranking of the combination of goods and services
  - (B) Consumer is able to measure the utility
  - (C) The ranking is consistent
  - (D) Consumer prefers more to less of a commodity
80. Which one of the following is the correct statement?  
In the case of Giffen goods
- (A) Substitution effect is negative
  - (B) Income effect is negative
  - (C) Income effect is stronger than the substitution effect
  - (D) All of these
81. What does the Coase's theorem deal with?
- (A) Internalisation of externalities
  - (B) Pricing of public goods
  - (C) Solution to the problem of externalities of terms of well defined and Ex-changeable property rights
  - (D) None of the above

82. Which one of the following is the correct statement?  
 (A) discriminating monopoly (B) monopolistic competition  
 (C) single-price monopoly (D) perfect competition
83. Which one of the following statements is correct?  
 In India, estimates of National Income are based on  
 (A) net income method only  
 (B) net output method only  
 (C) net income, net output and net expenditure methods  
 (D) net expenditure method only
84. Which one of the following is the correct statement?  
 In industries displaying increasing returns to scale and operated by the public sector to achieve optimality, there has to be  
 (A) a subsidy to the consumer only  
 (B) a tax on the industry  
 (C) a tax on the consumer and subsidy to the producer  
 (D) a subsidy to the consumer and a tax on the producer
85. If the fiscal deficit of the Union Government is Rs. 75,000 crores relending to States is Rs. 25,000 crores, interest payments are Rs. 25,000 crores, what is the amount of the primary deficit?  
 (A) Rs. 50,000 crores (B) Rs. 25,000 crores  
 (C) Rs. 1,00,000 crores (D) Rs. 1,25,000 crores
86. Which one of the following phenomenon explains the free rider problem in public finance?  
 (A) Ticketless travel in the Indian Railways  
 (B) Economics of horse racing and the breeding of horses  
 (C) Economics of all types of pure public goods  
 (D) Preference non-revelation in the case of goods where consumption is joint
87. Which one of the following is the correct statement?  
 The factor price equalization theorem is a corollary of  
 (A) the Ricardian trade theorem  
 (B) the Heckscher-Ohlin theorem  
 (C) imperfect competition model of trade  
 (D) none of the these

88. Which one of the following pairs is not correctly matched?
- (A) Tariff quota : Non-tariff barrier  
 (B) Export subsidy : Tariff barrier  
 (C) Ad valorem duty : Tariff barrier  
 (D) Multi-fibre arrangement : Non-tariff barrier
89. What is a countervailing duty?
- (A) A lower duty on raw material by the importing country to enhance the competitiveness of final product exports.  
 (B) A duty to raise more revenue by the Government for subsidizing exports  
 (C) An import duty on tariff imposed by an importing country to raise the price of a subsidized export product to offset its lower price  
 (D) A lower tariff on imported commodity produced by a monopoly industry in the exporting country.
90. Which one of the following items is included in the capital account of the balance of payments of a country?
- (A) Invisibles (B) Investment income  
 (C) Commercial borrowings (D) Private transfers
91. Which one of the following is the nature of convertibility of the Indian currency?
- (A) convertibility at trade account (B) convertibility at current account  
 (C) convertibility at capital account (D) Freely convertible
92. Which one of the following is not an affiliate of the World Bank?
- (A) The International Finance Corporation  
 (B) The Multi-lateral Investment Guarantee Agency  
 (C) The International Development Association  
 (D) The Asian Development Bank
93. What does inverted U shaped Kuznet's curve depict where PCY stands for per capita income?
- (A) As PCY increases, equality of income increases and then falls  
 (B) As PCY increases, inequality of income increases and then falls  
 (C) PCY and inequality are inversely related to each other  
 (D) PCY and equality of incomes are inversely to each other

94. Which one of the following is the correct statement?  
According to Harrod, technical change is said to be capital saving if it
- (A) raises the capital output ratio
  - (B) leaves the capital output ratio unchanged
  - (C) lowers the capital output ratio
  - (D) raises the capital labour ratio
95. Which one of the following is not included under WTO regulations?
- (A) Removal of industrial licenses
  - (B) Removal of import tariffs
  - (C) Removal of foreign portfolio investments
  - (D) Removal of price controls
96. Which one of the following is the correct statement?  
The "Sen measure" of poverty is said to measure the distribution of welfare rather than merely the distribution of wealth in a society because
- (A) it defines poverty in terms of minimum level of living
  - (B) it measures the energy requirements of a household
  - (C) it prescribes a universal standard of well being
  - (D) it seeks to measure the income shortfall of each person below the poverty line
97. Which one of the following criteria gives the estimate of the extent of under-utilization of the labour force in terms of person days?
- (A) CWS criterion
  - (B) CDS criterion
  - (C) UPS criterion
  - (D) UPSS criterion
98. In which type of unemployment, marginal productivity is zero or near zero?
- (A) Structural
  - (B) Disguised
  - (C) Seasonal
  - (D) Frictional
99. Mahalanobis plan model was adopted from which growth model?
- (A) Harrod-Domar model
  - (B) Feldman's model
  - (C) Lewis model of economic growth
  - (D) Ranis-Fei model
100. Which one of the following is the basic objective of monetary policy?
- (A) To control deficit of the budget
  - (B) To control deficit in the balance of payment
  - (C) To control cost and availability of money
  - (D) To control public expenditure