Roll No. | | | | | | | |

(Write Roll Number from left side exactly as in Admit Card)

Signature of Invigilators

1. ______________________

2. ______________________

PAPER – III

0710

Test Booklet No.

ECONOMICS

Time : $2\frac{1}{2}$ Hours

Maximum Marks : 200

Instructions for the Candidates

1. Write your roll number in the space provided on the top of this page.
2. This paper consists of four **Sections – I, II, III & IV.**
3. Answers are to be written in the space provided against the questions.

No additional sheets are to be used.

4. Read instructions given inside carefully
5. One sheet is attached at the end of the test booklet for rough work.
6. If you write your name or put any special mark on any part of the test booklet which may disclose in any way your identity, you will render yourself liable to disqualification.
7. You should return the test booklet to the invigilator at the end of the examination and should not carry any paper with you outside the examination hall.

FOR OFFICE USE ONLY

Marks Obtained

Question Number	Marks Obtained	Question Number	Marks Obtained	Question Number	Marks Obtained
1		10		19	
2		11		×	
3		12		×	
4		13		×	
5		14		×	
6		15		×	
7		16		×	
8		17		×	
9		18		×	

Total marks obtained ....

Signature of the Co-ordinator ....
(Evaluation)

ECONOMICS

Paper – III

SECTION – I

Note : i) Answer both the questions.

ii) Each question carries twenty marks.

iii) Each answer should be given in 500 words. 2 × 20 = 40

1. Give the outlines of the Keynesian macroeconomic system and discuss the possibility of unemployment in the system.

OR

Explain how disguised unemployment can serve as a potential source of capital formation in any underdeveloped economy.

2. Discuss briefly any growth model to highlight the principal factors determining the growth of an economy. Explain how the principal factors act to influence growth.

OR

Discuss briefly the performance of Indian agriculture during the period of economic reforms.

SECTION – II

Note : i) There are *five* Electives in this Section. Answer *all* the questions of any *one* of the Electives.

ii) Each question carries fifteen marks.

iii) Each answer should be given in 300 words. 3 × 15 = 45

ELECTIVE – I

3. Explain the situation where the technique of OLS cannot be applied in the estimation of a linear regression model. 15

4. The single-equation regression equation is

$$C_t = \alpha + \beta Y_t + U_t$$

where $U_t \sim iid\ N(0, \sigma_u^2)$

and $E(Y_t U_t) = 0$

The equation is integrated into a Just-Identified Simultaneous equation system such that

$$C_t = \alpha + \beta Y_t + U_t$$
$$Y_t = C_t + I_t$$

where I_t is an exogenous variable.

(i) Show that in the integrated model

$$E(Y_t U_t) \neq 0$$

(ii) Let $\hat{\beta}$ be the indirect least squares (ILS) estimator for β.

Prove that the 'Simultaneous Equation Bias' withers away with increase in the sample size such that $\underset{n \to \infty}{\text{plim}}\ \hat{\beta} = \beta$ 5 + 10 = 15

5. What is meant by 'stationarity' of a given time series ? Point out the steps involved in the Augmented Dickey-Fuller test for examining stationarity of the time series. What is meant by 'co-integration' ? 4 + 6 + 5 = 15

ELECTIVE – II

3. Construct the linear programming version of the two-sectors Leontief static open input-output model, clearly stating all the assumptions you need. Write down the dual problem and give economic interpretation. 15

4. (a) An economy operates with the production function $Y = K^{\frac{1}{2}} L^{\frac{1}{2}}$

The initial stock of capital per worker is 4 units. Savings rate is 0·3 while the rate of depreciation is 0·1.

(i) Derive the production function in terms of capital per worker.

(ii) Determine the steady state capital per worker following the Solow model of growth.

(iii) Find the savings rate and the corresponding capital stock which will maximize consumption level per worker. 2 + 3 + 4 = 9

(b) Explain how the Solow model of growth establishes that only technological progress can account for persistently rising standard of living. 6

5. (a) Establish how in the long-run equilibrium the actual rate of growth of nominal income equals the anticipated rate and these are equal to the rate of growth of money supply. 12

   (b) It is empirically observed that interest rate usually rises following rise in money supply even though the liquidity preference schedule remains unchanged. How can this phenomenon be explained ? 3

ELECTIVE – III

3. Discuss briefly the influence exerted by the Euro-currency market and Euro-bond market in the international financial system in recent years. 15

4. Mention the events responsible for collapse of the Bretton Woods system. 15

5. (a) In any economy with flexible exchange rate system prices display delayed response to a monetary shock and asset market bears the entire shock instantly.

   Describe, following Dornbusch, the dynamic path of adjustment of exchange rate in response to any unanticipated monetary shock in the economy. 9

   (b) Explain how the current exchange rate will change following :

   (i) a fall in foreign interest rate

   (ii) a rise in domestic interest rate

   (iii) an anticipated rise in the future exchange rate. 2 + 2 + 2

ELECTIVE – IV

3. (a) Explain the role of regulated markets in removing defects of the prevailing system of marketing. 8

   (b) Briefly review the performance of the NAFED as the apex organization in the field of co-operative marketing. 7

4. Discuss briefly the salient feature of the Targeted Public Distribution System (TPDS) in India. 15

5. Critically examine how the WTO agreement on agriculture would harm interests of farmers in developing countries. 15

ELECTIVE – V

3. Discuss briefly the role of infrastructure in economic development. 15

4. ~~Review briefly the performance of~~ organised industrial sector in India in the era of globalisation. 15

5. How far do you think that poverty-ratio in India and her states changed significantly after adoption of economic reforms ? 15

SECTION – III

Note : i) Answer all questions.

ii) Each question carries ten marks.

iii) Each answer should be given in 50 words. $9 \times 10 = 90$

Output (Q) is produced at a total cost C and the cost function is $C = f (Q)$.

(a) Show that elasticity of total cost equals the ratio of marginal cost to average cost.

(b) Prove further that the elasticity of total cost exceeds the elasticity of average cost by unity.

Define Hicks Neutral Technical Change and Harrod Neutral Technical Change.

Interpret the equilibrium condition of a profit maximizing firm.

Explain the effect of an increase in money supply on interest rate and income in the IS-LM framework when

(i) price level is fixed

(ii) price level is fully flexible.

10. Suppose the government collects a lumpsum tax T on total income but does not spend it. What will be its impact on the equilibrium income (ignore the money market) ? Can you explain the balanced budget multiplier in this context ?

11. A bivariate dataset on X and Y is taken. The regression equations are

$$Y = 5 + 1 \cdot 6\ X$$

$$X = 1 \cdot 6 + 0 \cdot 4\ Y.$$

(a) Find the coefficient of correlation between X and Y.

(b) Determine $\bar{X}$ and $\bar{Y}$ where $\bar{X}$ and $\bar{Y}$ represent the means of X and Y respectively.

12. Distinguish between nominal and real exchange rates.

13. What is the adaptive expectations hypothesis ?

14. Why is per capita income not a satisfactory index of development ?

SECTION – IV

Note : i) Answer all questions.

ii) Each question carries five marks.

iii) Each answer should be given in 30 words. 5 × 5 = 25

Read the following passage and then answer the following questions :

"Until the 1990s, India's infrastructure industries were all in the public sector and as such public investment, being largely on infrastructure, crowded in private savings and investment, by reducing the infrastructural bottlenecks to output and raising the rate of return for private investment. Clearly, gestation lags in infrastructure investment are long so that public investment in the late 1970s contributed to growth only in the 1980s. As the 1980s wore on, the pressure on public expenditure from rising deficits constrained public investment : from 1986-87, public investment in GDP began a steady and deep decline from 11.2 per cent to 5.6 per cent of GDP in 2003-04. It is no surprise, therefore, that .... find growth effects only in the 1980s and not in the 1990s."

15. What are infrastructure industries ?

16. What is gestation lag ?

17. Give two examples of infrastructural bottlenecks.

18. Can you add any influence other than infrastructural investments that had added to the growth effect in the 1980s ?

19. How could have infrastructural development led to a rise in rate of return for private investment ?