

Bangabasi College
Test Examination, 2014
B.Sc (Hons.) (1+1+1 System), Part III
ECONOMICS (Hons) Paper V & VI

Full marks: 50 + 50

Time: 4 Hrs.

Section A

1. Answer any five questions:

(5 × 4)

- a) 'If the world terms of trade for a country are somewhere between the domestic cost ratio of A and that of B, then country A and country B will both gain from trade'. Justify.
- b) Consider two countries, India and South Korea in an H-O world. Each country produces two goods, cars (a relatively capital intensive good) and shirts with two factors of production labor and capital. At the world relative price of 200 for cars, South Korea exports cars and imports shirts from India. Is India relatively capital abundant? Why?
- c) If a country experiences import biased growth does it necessarily gain in terms of Welfare? Explain your answer.
- d) In a 2 good 2 country world how the equilibrium relative price is determined through the interactions between relative demand curve (RD) and the relative supply curve?
- e) Can it so happen that a foreign aid makes the donor country better off and recipient country worse off?
- f) Is it true that consumers must suffer when a small country imposes tariff? Why?
- g) Explain the implication of Metzler's Paradox.
- h) Distinguish between depreciation of a nation's currency and devaluation.
- i) Distinguish between normative approach and positive approach to public economics.
- j) State the difference between national and local social goods?
- k) What do you mean by tied grants and matching grants?
- l) What is meant by a merit good? Do you think that such good should be provided by the government?
- m) What is the difference between budget deficit and fiscal deficit?
- n) Distinguish between Direct tax and Indirect tax with examples.
- o) Explain the concepts of horizontal and vertical equity under the Ability to Pay principle of taxation.
- p) How does an internally held public debt differ from an external debt?

2. Answer any three questions:

(3 × 10)

- a) 'In Ricardian model each country necessarily specializes completely in the good in which it has comparative advantage' - do you agree?
- b) Suppose that at current factor prices cloth is produced using 20 hours of labor for each acre of land, and food is produced using only 5 hours of labor per acre of land.
 - (i) Suppose that the economy's total resources are 600 hours of labor and 60 acres of land. Using a diagram, determine the allocation of resources.
 - (ii) Now suppose that the labor supply increases first to 800, then 1000, then 1200 hours. Using diagram, trace out the changing allocation of resources.

- (iii) "What would happen if the labor supply were to increase even further?"
- (c) Bangladesh exports rice to India and imports cloth instead. Bangladesh's MPC of rice is 0.8 and MPC of cloth is 0.6, whereas India's MPCs are 0.7 and 0.75 for rice and cloth respectively. If India gives an aid of 25,000 crores of rupees to Bangladesh, what happens to the terms of trade between these two countries?
- (d) What happens to the domestic price of importables when an import quota replaces tariff under a (i) competitive situation and (ii) under monopoly?
- (e) Home's demand and supply curves are given by:
 $D = 120 - 25P$ and $S = 20 + 15P$ while foreign's demand and supply curves are:
 $D^* = 70 - 20P$ and $S^* = 30 + 10P$,
- Construct the Home's import demand curve.
 - Construct the foreign's export supply curve.
 - Find the equilibrium price under free trade.
 - Determine the prices in the two countries and the volume of trade when a tariff of 0.7 per unit is imposed on imports of the Home country.
- (f) Develop a national income model with foreign repercussion to show how fluctuations in economic activities are transmitted across countries.
- (g) Derive the balanced budget multiplier. Is it unity always?
- (h) What do you mean by Equal Sacrifice Rules of taxation? Does equal sacrifice call for a progressive tax?

Section B

3. Answer any *five* questions: (5 × 4)
- Can global inequality be higher than international inequality? Give reasons.
 - State some possible reasons for the breakdown of feudalism in Western Europe.
 - Mention some of the principal features of Industrial Revolution in Great Britain.
 - Mention two features of New Economic Policy in Soviet Union.
 - Mention the basic objectives of UNCTAD.
 - Do you think that Import Substitution Argument for industrialization is the same as Infant Industry Argument?
 - Who propounded the theory of Unequal Exchange? What do you mean by it?
 - Indicate some of the basic differences between GATT and WTO.
 - Indicate the successive forms of modern (capitalist) polarization as observed in the process of its evolution.
 - What constitutes development planning?
 - Mention any two causes behind the macroeconomic crisis of 1991.
 - What is strategic sale of public enterprise?
 - Mention two reform measures adopted in the area of foreign investment in 1991.
 - State any two reforms undertaken in the money market of India since 1991?
 - What is the difference between FERA and FEMA?
 - How pro-market orientation is different from pro-business orientation?
 - Define social inclusion.
 - Mention the reasons behind higher growth rate in agriculture in West Bengal during 1980s compared to 1970s.

Bangabasi College
Test Examination, 2014
B.Sc (Hons.) (1+1+1 System), Part III
ECONOMICS (Hons) Paper VII & VIII

Full marks: 50 + 50

Time: 4 Hrs.

Section A

1. Answer any *five* questions: (5 × 4)
- (a) Prove that the expectation of the product of two independent random variables is equal to the product of their expectations.
 - (b) Distinguish between sampling error and non-sampling error.
 - (c) What are type I and type II errors? Explain how there is a trade off between probability of making a type I error and the probability of making a type II error.
 - (d) What is CLRM?
 - (e) Explain the possible consequences of the problem of heteroscedasticity.
 - (f) If T_1, T_2, T_3 are independent, unbiased estimates of θ and all have the same variance, which of the following unbiased estimates of θ would you prefer:
 $(T_1+2T_2+T_3)/4, (2 T_1+ T_2+2 T_3)/5, (T_1+ T_2+ T_3)/3$
 - (g) Reduce the trend equation $Y_t = 2036+56 t$ (origin at 2000 and unit of $t = 1$ year) for yearly totals to a half-yearly trend equation.
 - (h) Show that in a CLRM, the estimated regression coefficients are unbiased.
 - (i) Distinguish between Homogeneous Production Functions and Homothetic Utility Functions.
 - (j) Define Quasi-Linear Utility functions.
 - (k) Contrast risk-aversion with risk-loving behavior in terms of property of utility function of the individual.
 - (l) Explain what you mean by the consumer's indirect utility function.

2. Answer any *three* questions (3 × 10):

(a) The marginal distributions of X and Y are given in the following table:

| | | | | |
|-------|---|-----|-----|-------|
| | X | 5 | 7 | Total |
| Y | | | | |
| 3 | | | | 1/3 |
| 6 | | | | 2/3 |
| Total | | 1/2 | 1/2 | 1 |

If $\text{Cov}(x,y) = E(xy) - E(x)E(y)$ is known to be $-\frac{1}{2}$, obtain the cell probabilities. Hence calculate $P(x > y)$ and $P(x=5 | y = 6)$.

(b) The guaranteed average life of a certain type of electric bulbs is 1000 hrs with a SD of 125 hrs. It is proposed to take sample from the output so as to ensure that 90% of the bulbs do not fall short of the guaranteed average by more than 2.5%. What should be the minimum size of the sample (the area under standard normal curve from $Z=0$ to $Z=1.28$ is 0.4000)?

- (c) Find the MLE of the parameters μ and σ^2 in random samples from a $N(\mu, \sigma^2)$ population, when both the parameters are unknown.
- (d) A sample of 20 observations corresponding to the regression model $Y_i = \alpha + \beta X_i + U_i$, where U_i is normally distributed with mean zero and unknown variance μ_u^2 , gives the following data:

$$\sum_{i=1}^n Y_i = 21.9, \sum_{i=1}^n (Y_i - \bar{Y})^2 = 86.9, \sum_{i=1}^n X_i = 186.2, \sum_{i=1}^n (X_i - \bar{X})^2 = 215.4,$$

$$\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y}) = 106.4, n=20; \text{ Obtain } \hat{\alpha}, \hat{\beta}, \text{Var}(\hat{\alpha}) \text{ and } \text{Var}(\hat{\beta}).$$

- (e) Explain Durbin-Watson test in brief for testing the problem of autocorrelation. Point out the major limitations of Durbin-Watson test.
- (f) A firm has a production function $Y = X_1 X_2$. If the minimum cost of production at $w_1 = w_2 = 1$ is equal to 4, what is the value of Y ?
- (g) The total cost function of a perfectly competitive firm is $C = x^2/25 + 3x + 100$. Determine: i) the lowest price to cover total cost, ii) the lowest price to cover total variable cost.
- (h) Utility function between leisure x_1 (hours/week) and earned income x_2 (Rs/week) of a person is given by $U = 15x_1 x_2 - 100x_1 - 140x_2 - 25x_1^2 - 2x_2^2$. Find the optimum values of x_1 and x_2 and hence determine the implied wage rate.
- (i) Suppose that the consumer's preferences are given by the CES (direct) utility function:
 $u(x_1, x_2) = (x_1^\rho + x_2^\rho)^{1/\rho}$ Find the indirect utility function for this utility function. (consider the budget equation $p_1 x_1 + p_2 x_2 = w$).
 Or, Consider the indirect utility function: $v(p_1, p_2, m) = m/p_1 + p_2$
 (i) What are the demand functions?
 (ii) What is the direct utility function?

Section B

3. Answer any *five* questions: (5 × 4)
- What were the constituents of 'Home Charges'?
 - Explain the concept of *Gandhian Plan*.
 - What were the main functions of a Managing Agency?
 - Briefly explain the effects of Discriminating Protection on Indian industries.
 - What were the land revenue arrangements under *Permanent Settlement*?
 - What do you understand by the term '*de-industrialisation*' in India in the 19th century?
 - Indicate any two impacts of the commercialization of Indian agriculture under the British Rule.
4. Answer any *three* questions: (3 × 10)
- (i) Mention the main recommendations of the Hilton Young Commission (1925) in India.
 (ii) What was the '*Ratio-Controversy*' originating from the recommendations of the Hilton-Young Commission? (6+4)

- (b) Do you think that the '*New Guarantee System*' was better than the '*Old Guarantee System*' in the history of Railways in India? Discuss the view that the construction of railways had a '*linkage effect*' on Indian Industries during the British period. (6+4)
- (c) What is meant by '*economic drain*' from India to England during the British rule? What were the economic effects of such drain?
- (d) Account for the growth of commercial agriculture in India since the 19th century.
- (e) Briefly discuss the evolution of the idea of economic planning in India during 1930s and 1940s on the basis of different planning proposals suggested by different experts.
-