

Set A

Unique Paper Code- 12271302

Name of Paper - Intermediate Macroeconomics -1

Name of the Course-B.A ( Hons.) Economics

Semester - III (CBCS) - Core

Duration-3 hours

Maximum Marks 75

Answer any four questions out of six. Attempt all the parts of a question. All questions carry equal marks

1. a. The following information is given for an economy:

Money Supply ( $M/P$ ) = 1600

Money Demand ( $M/P^d$ ) =  $2Y - 8,000i$

Consumption:  $C = 200 + 0.25 Y_d$ , where  $Y_d$  is Disposable income

Taxes ( $T$ ) = 200

Investment ( $I$ ) =  $150 + 0.25Y - 1000i$ , where 'i' is the interest rate

Government Expenditure ( $G$ ) = 250

(i). Derive the IS relation

(ii). Derive the LM relation

(iii). Solve for equilibrium real output and interest rate

(iv). Solve for equilibrium values of C and I

(v). Now suppose that the real money supply increases to  $M/P = 1840$ . Solve for  $Y, i, C, I$  and describe the effects of an expansionary monetary policy in words.

(vi). Set  $M/P$  equal to its initial value of 1600. Now suppose that government spending increases to  $G = 400$ . Summarize the effects of an expansionary fiscal policy on  $Y, i,$  and  $C$ .

(b) Suppose that the government undertakes a balanced budget expansion in spending. Government spending rises from  $G$  to  $G'$  and there is an accompanying increase in tax rates so that at the initial level of output the budget remains balanced

(i) Show the effect on the AD schedule.

(ii) Discuss the effect of the balanced budget policy on output and interest rates in the Keynesian case.

(iii) Discuss the effect in the Classical case.

2 (a) Assume that the economy starts at the natural level of output. Now suppose there is an increase in the price of oil.

(i) In an AD-AS diagram, show what happens to output and price in the short run and in the medium run

(ii) What happens to unemployment rate in the short run and the medium run.

Suppose that the Central Bank decides to respond immediately to the oil price rise. It wants to prevent the unemployment rate rise in the short run after the oil price rise. Assume that the Central Bank changes the money supply once, immediately after the oil price rise and then does not change the money supply again.

(iii) Show how the Central Bank's action, affects the AS-AD diagram in the short run and in the medium run.

(iv) How would output and the price level in the short run and in the medium run compare to your answers in part (i)?

(v) How do the short run and medium run unemployment rates compare to your answers from part (ii)?

(b) Suppose that interest rate has no effect on investment.

(i) What does this imply for the slope of the IS curve?

(ii) What does this imply for the slope of the LM curve?

(iii) What does this imply for the slope of the AD curve?

3 (a) Suppose that the economy can be described by the following three equations.

$$u_t - u_{t-1} = -0.4(g_{yt} - 3\%) \quad \text{Okun's law}$$

$$\pi_t - \pi_{t-1} = -(u_t - 5\%) \quad \text{Phillip's curve}$$

$$g_{yt} = g_{mt} - \pi_t \quad \text{Aggregate demand}$$

$u, \pi, g_y, g_m$  represent unemployment rate, inflation rate, output growth and nominal money growth respectively.

(i) What is the natural rate of unemployment for this economy ?

(ii) Suppose that the unemployment rate is equal to the natural rate and the inflation rate is 8%. What is the growth rate of output? What is the growth rate of money supply?

(iii) Suppose that conditions are as in (ii), when, in year  $t$ , the authorities use monetary policy to reduce inflation rate to 4%. in year  $t$  and keep it there. Given this inflation rate, calculate the unemployment rate, growth of output and the rate of nominal money growth for years  $t, t+1$  using the above three equations.

(b) Discuss the following statements-

(i) The Phillips curve implies that when unemployment rate is high, inflation is low and vice versa. Therefore, we may experience either high inflation or high unemployment, but we will never experience both together.

(ii) As long as we do not mind having high inflation, we can achieve as low a level of unemployment as we want. All we have to do is increase the demand for goods and services by using expansionary fiscal policy.

(iii) The adaptive expectation hypothesis allows one to relate unobservable expected variables to actual observable variables.

(iv) Rational expectations are the most accurate expectations

4(a) Explain how Modigliani constructs a statistically measurable form of the consumption function using the Life Cycle hypothesis.

(b) Discuss with the help of a diagram how Friedman explains the short-run and long-run consumption pattern with the help of permanent income hypothesis, .

(c) Explain the stagnation thesis. Was this found to be true empirically after World War II ?

5 (a) Explain with the help of diagrams., all three kinds of preferences an individual might have and their corresponding equilibria in the portfolio balance approach.

(b) Explain from the above analysis how the aggregate money demand can be impacted with increase in the level of uncertainty and secondly with an increase in expected capital gains, when individuals diversify between bonds and money. Use suitable diagrams.

(c) Suppose that the expected interest rate depends positively on current interest rate. Explain the conditions under which an individual's money demand will look the same as the case when expectations of interest rate are held with certainty in the regressive expectations model.

6. (a) Explain the process of determination of equilibrium in the housing market in the short run and long-run (in non-growing economy).

(b) What are the factors affecting the position of the housing demand curve? Explain how the short run and long run equilibrium of the housing market change when there is a change in these factors.?

(c) (i) What is the 'q' theory of investment?

(ii) Do you think that a high inventory sales ratio would always be a recessionary signal? Discuss.