[This paper contains 20 printed pages.]

Your Roll No.....

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Name of the Paper : Intermediate Macroeconomics II: Policy Issues (DSC 11)

Name of the Course : B.A. (H)

Semester : IV

Duration : 3 Hours

Maximum Marks : 90

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answers may be written either in English or Hindi; but the same medium should be used throughout the paper.

**छात्रों के लिए निर्देश**

1. इस प्रश्न-पत्र के मिलते ही ऊपर दिए गए निर्धारित स्थान पर अपना अनुक्रमांक लिखिए।
2. इस प्रश्न-पत्र का उत्तर अंग्रेजी या हिंदी किसी एक भाषा में दीजिए, लेकिन सभी उत्तरों का माध्यम एक ही होना चाहिए।

## SECTION A

**All** Questions in this Section are compulsory. Each question carries 2 marks. (15×2=30)

1. A government in country A issues a debt to cover its spending. It pays an interest rate of r% on the debt. In order to repay its debt fully by the end of t years from now, the government must-

(a) Run a primary surplus equal to $(1+r)^{t+3}$

(b) Run a primary surplus equal to $(1+r)^{t+1}$

(c) Run budget surplus equal to $(1+r)^{t-2}$

(d) Run a primary surplus equal to $(1+r)^{t-1}$

2. Under an exchange rate adjustment, when two trading countries are at different stages of the business cycle, with one country experiencing a boom and the other experiencing a recession, it is ideal for the country with a recession to _____

(a) Stop trading with its partner

(b) Adopt an expansionary fiscal policy but a tight monetary policy

(c) Adopt an expansionary monetary policy but a tight fiscal policy

(d) Depreciate its currency to improve its output and employment levels.

3. The inflation rate ($\pi$) in a country is higher than its target rate of inflation ($\pi^*$), given its nominal interest rate, i and the targeted nominal interest as i*. According to the interest rate rule, the central bank should ideally-

(a) Increase (decrease) the i above i* so that the unemployment will decrease below the natural rate of unemployment

(b) Increase the i above i* so that the unemployment will increase above the natural rate of unemployment

(c) Decrease the i below i* so that the unemployment will decrease below the natural rate of unemployment

(d) Increase the i above i* so that the unemployment will increase above the natural rate of unemployment

4. A Japanese investor considers investing in US bonds. Consider the following information-

- Spot rate: ¥110/$
- 1-year forward rate: ¥114/$
- Interest rate in Japan: 1%
- Interest rate in the US: 3%

(*Treat Japan as the home country*)

The covered interest arbitrage will approximately be equal to

(a) 5.64%, with capital flows into Japan

(b) -5.64%, capital flows into the US

(c) 0%, with interest parity

(d) 3.64%, with flows into US

5. Match the following with their suitable alternatives-

| | |
|---|---|
| A. Fire sales | I. Initial Policy response by the Federal Reserve |
| B. Troubled Assets Relief Program | II. Bundle of Assets for investment |
| C. Mortgage-Based Securities | III. Selling of assets at a low price |
| D. Wholesale Funding | IV. Borrowing from banks and investors to finance the purchase of assets |

(a) A-III, B-I, C-II, D-IV

(b) A-II, B-IV, C-III, D-I

(c) A-IV, B-III, C-I, D-II

(d) A-I, B-II, C-IV, D-III

6. A time inconsistency problem in policy making refers to the situation in which-

(a) A central bank decides to stay and act upon its announced policy, but faces a conflict of interest with the policies of other central banks in the world over time

(b) A central bank decides to stay and act upon its announced policy without any conflict of interest with the policies of other central banks in the world over time

(c) A central bank deviates from its announced policy over time to improve the economic outcomes and compromising one policy parameter for the other

(d) A central bank does not deviate from its announced policy over time to improve the economic outcomes, and compromise with one policy parameter for the other

7. Assume that the exchange rates are as follows :

- $0.90 = €1 in New York,
- €1= £0.80 in Frankfurt, and
- £0.80 = $1 in London.

The profit made by a successful arbitrageur is _____.

(a) $0.10

(b) $0.11

(c) $0.20

(d) $0.15

8. The interest rate on a three-month treasury bill is 7% at an annual basis in the US and 10% in Berlin. At maturity, if the Euro depreciates by 1% at an annual basis and if the exchange rate risk is not covered, the US investor has a-

(a) Net gain of zero %

(b) Net gain of 2%

(c) Net gain of 4%

(d) Net gain of 1%

9. Assume that Russia and the US are engaged in a bilateral trade relation under a flexible exchange rate with 1 USD ($) = 82.17 Russian Ruble (₽). If the demand for dollars increases in Russia, then the _____ increases from the US, and the _____ prices shoot up.

(a) Imports, Ruble

(b) Exports, Ruble

(c) Imports, Dollar

(d) Exports, Dollar

10. Assume that the current spot exchange rate between the US Dollars and Pounds is \$1 = £ 0.7. The 3-month forward rate is \$1 = £0.66. The £ is available at a

(a) Forward premium of 22.86% p.a

(b) Forward discount of 22.86% p.a

(c) Forward discount of 5.71% p.a

(d) Forward premium of 5.71% p.a

11. Starting from the position of equilibrium where $y = y_e$ and $\pi = \pi^*$, a negative demand shock in the IS-PC-MR model would initially :

(a) Shift the IS curve to the right

(b) Move the economy to a lower output and lower inflation level

(c) Shift the Phillips Curve upward

(d) Move the economy along the MR curve to a higher output and lower inflation

12. Suppose that the velocity of money circulation is V=4 and the nominal GDP is \$200 billion. If the nominal GDP rises to \$220 billion, the quantity of money demanded will be-

(a) Rise by \$5 billion

(b) Rise by \$4 billion

(c) Fall by \$5 billion

(d) Fall by \$4 billion

13. A devaluation takes place when the price of a foreign currency under a _____ exchange rate is _____ by official action.

(a) Flexible, decreased

(b) Flexible, increased

(c) Fixed, decreased

(d) Fixed, increased

14. An external account is said to be balanced when-

(a) Current account deficit + net capital inflow = 0

(b) Capital account deficit + net capital inflow = 0

(c) Current account surplus + net capital inflow = 0

(d) Capital account surplus + net capital inflow = 0

15. Under a floating exchange rate, if an economy adopts an expansionary fiscal policy, then it will cause-

(a) Depreciation of home currency without any effect on net exports

(b) Appreciation of home currency without any effect on net exports

(c) Depreciation of home currency with crowding of net exports

(d) Appreciation of home currency with crowding of net exports

## SECTION B

Attempt any **6** questions out of the following **8** questions. Each question carries **5** marks. (6×5=30)

1. Consider an open economy with a flexible exchange rate regime and perfect capital mobility. The central bank of this economy adopts a contractionary monetary policy. Analyse the impact of such a policy action on the economy.

2. Consider an economy that is in equilibrium in the current time period (t=0) and gets disrupted by a negative permanent supply shock, say global shortage of a critical mineral required in a major industry. Using the 3-equation model (IS, PC, MR) framework, explain the adjustments in different variables that take place during the next 2 time periods (starting t=0 as current).

3. Consider two countries: home- Spain and foreign- Japan. Suppose there is an appreciation of Spanish currency with respect to Japanese currency.

   (a) Spain exports edible meat offal to Japan. Would the volumes get affected? How?

   (b) How is a Japanese citizen planning to travel to Spain get affected?

   (c) Is there any impact on capital flows, CF, between the two countries? Explain.

   (d) Japan exports photography apparatus to Spain; would that be affected? How?

4. Consider an economy where the interest rate is zero and people have become indifferent between holding money and holding bonds. Show in this situation:

(a) How will the LM curve be derived?

(b) Is there a limit to the effectiveness of monetary policy?

5. Suppose that the finance minister of your country, in her budget speech, announces a cut in the income tax rate to be offset exactly by an increase next year. If you are a salaried person and believe in the Ricardian Equivalence Proposition, discuss how this would change your consumption pattern and why.

6. Imagine that you are a global investor/trader seeking to avoid foreign exchange risks.

(a) Explain how you would do so in the spot market.

(b) Can you also hedge your position in the futures or options market? Explain how.

7. Consider an economy with the following facts-

- Debt to GDP ratio = 40%
- Primary deficit to GDP = 4%
- Normal growth rate = 3%
- Real interest rate = 3%

Using the above information, calculate the Debt to GDP ratio in 2 years. How will this ratio change if the real interest rate changes to 5%.

8. Consider an economy starting from a balanced budget (year 0), and in year 1, the government decreases taxes by 1 unit.

(a) Show how a primary deficit emerges at the end of year 1.

(b) If the government fully repays the debt during year 2, calculate the primary surplus it needs to run in year 2.

## SECTION C

Attempt any **3** out of the following **4** questions. Each question carries **10** marks. (3×10=30)

1. With the help of a diagram, explain how the points below the Covered Interest Arbitrage Parity (CIAP) line imply capital outflow and points above the CIAP line imply capital inflow. Why does the net gain from covered interest arbitrage tend to diminish as covered interest arbitrage continues?

2. Explain the extended asset market approach to exchange rate determination. Using this model, explain what happens to the domestic currency if the home nation's monetary authorities engage in open market sale of government securities (*only the immediate impact needs to be mentioned*).

3. Explain the Taylor's rule for the Central Bank to set the nominal interest rate. Using this rule, find the value of the nominal interest rate set by the Central Bank if the unemployment rate is above the natural rate by 2% and the inflation rate is 6%. The natural real interest rate is 2%, the target inflation rate is 4%, the coefficient of deviation of inflation from target is 1.5, and the coefficient of deviation of unemployment rate from natural is 0.5.

4. Using the IS-PC-MR analysis and diagram, describe what happens in the economy following an inflation shock if the central bank cares about both increased unemployment and achieving its inflation target. Explain briefly what happens if the bank cares only about its inflation target.

## खंड-क (SECTION A)

1. देश A में सरकार अपने खर्चों को पूरा करने के लिए कर्ज लेती है। वह कर्ज पर r% की ब्याज दर का भुगतान करती है। अपने कर्ज को पूरी तरह चुकाने के लिए अब से t वर्षों के अंत तक, सरकार को-

(क) $(1+r)^{t+3}$ के समान एक प्राथमिक अधिशेष चलाना होगा।

(ख) $(1+r)^{t+1}$ के समान एक प्राथमिक अधिशेष चलाना होगा।

(ग) $(1+r)^{t-2}$ के समान बजट अधिशेष चलाना होगा।

(घ) $(1+r)^{t-1}$ के समान प्राथमिक अधिशेष चलाना होगा।

2. विनिमय दर समायोजन के अंतर्गत, जब दो व्यापारिक देशों के व्यवसाय चक्र के विभिन्न चरण होते हैं, जिसमें एक देश अर्थव्यवस्था में अत्यधिक तेजी का अनुभव कर रहा है और दूसरा मंदी का, तो मंदी का अनुभव कर रहे देश के लिए आदर्श है कि वह _____

(क) अपने व्यापारिक साथी देश के साथ व्यापार बंद कर दे।

(ख) विस्तारी वित्तीय नीति अपनाएं लेकिन सख्त मौद्रिक नीति अपनाए।

(ग) विस्तारी मौद्रिक नीति अपनाएं लेकिन सख्त राजकोषीय नीति अपनाए।

(घ) अपनी मुद्रा का मूल्य घटाकर अपने उत्पादन और रोजगार स्तरों में सुधार करें।