

Indian Statistical Institute, Bangalore

B. Math (Hons.) III year

First Semester - Economics I

Semestral Exam

Duration : 3 hours

Date : Nov 22, 2017

Total marks: 50

Two marks each unless mentioned.

1. An economy's nominal GDP in 2016 is given as Rs 124000 Billion. The overall price level is Rs. 200.

a) What is the real GDP for the economy?

b) If the real GDP grows at a rate of 2%, while the price level remains the same, what will be the Nominal GDP in 2017?

2. What is Okun's Law?

3. a) Which one of the following sectors is not part of the tertiary sector in India?

i) Fishing and Forestry

ii) Retail Trade

iii) Tele-Communication

b) The sector with the highest share of GDP in India today is

i) Primary

ii) Secondary

iii) Tertiary

4. Assume an economy with a 2 per cent rate of depreciation annually of its fixed capital stock., and total worth of fixed capital stock of Rs 400 Billion in 2016. If the GDP of the economy is Rs 300 Billion in 2016.

a) What is NDP in 2016?

b) What is net savings of the economy?

5. Which one of the following types of unemployment is related to a recession? (1 mark)

a) Frictional unemployment

b) Structural unemployment

c) Cyclical Unemployment

6. Mention one difference between structural and frictional unemployment.

7. What are the differences between work force participation rate and labour force participation rate in the Indian context?

8. a) What is meant by efficiency wage? (1 mark)

b) How is efficiency wage related to short run unemployment in an economy? (2 marks)

Questions 9-20 refer to the same economy. An economy has a consumption function

$C = 200 + 0.75(Y - T)$. Government expenditure and taxes are 100 units

9. If investment is given at 45 units, what is the value of MPC and MPS?

10. If now the investment function changes to $I = 200 - 25r$. How much is the change in the value of multiplier?

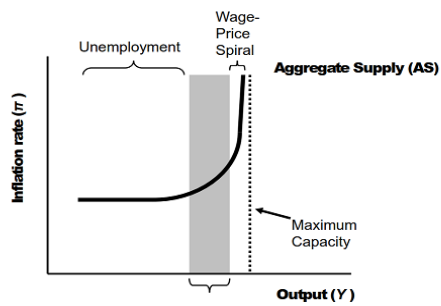
11. Find the IS curve equation for the economy.
12. Graph the IS curve for r (interest rate) ranging from 0 to 5.
13. What happens to the IS curve if government reduces taxes from 100 units to 50? What is Personal disposable income of the economy now?
14. If government expenditure increases from 50 to 80 units after the tax change, how much does the AD (aggregate demand) curve shift? What kind of a fiscal policy is that?
15. The money demand function for the economy is $(M/P)^d = Y - 100r$. Assuming Money supply is 1000. What is the equation for LM curve?
16. Graph the LM curve for r ranging from 0 to 5.
17. What happens to the LM curve if money supply is increased by 100 units?
18. Take IS and LM curves of Questions 11 and 15 together and give an equation for Aggregate Demand.
19. Suppose the economy is now an open economy. Exports (X) are 100 units. Imports are defined by $M = 25 + 0.1Y$. What will be the new multiplier of the economy? (3 marks)
20. What happens to aggregate demand if there is a currency depreciation of the economy?
21. Refer to the Table below.
 - a) What is the revenue deficit?
 - b) What is the fiscal deficit

Table: Union budget, India, (in crores of rupees), 2016-17

1	Revenue receipts	13,77,022
2	Capital receipts, of which	6,01,038
3	Recoveries of loan	10,634
4	Other receipts	56,500
5	Borrowing and other liabilities	5,33,904
6	Total receipts	19,78,060
7	Total expenditure, of which	19,78,060
8	Revenue expenditure	17,31,037

22. Write a short note on any one.
 - a) Open market operation of Central Bank.
 - b) Public debt.
 - c) Quantity theory of Money.

23. Following AS curve has a horizontal segment. The reasons are (1 mark)



- a) Sticky wages and prices
- b) Flexible wages and prices
- c) Hyper-inflation
- d) Frictional Unemployment.

What happens to aggregate supply if the economy's technology improves and it shifts the maximum capacity of output? (2 marks)

24. What is current account balance? (1 mark)

25. If in India current account is in a deficit. Which of the following is true? (1 mark)

- a) Outflow in current account is less than Inflow
- b) Capital account inflow is higher than current account.
- c) Inflow in current account is less than out flow.