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Date:_____FN/AN, Time: 2 Hrs., Full Marks: 60, Dept.: Rajendra Mishra School of Engineering Entrepreneurship, No. of Students: 159, Mid Spring Semester Examination, Sub. No. EP60008, Sub. Name: **Economics of Entrepreneurship**

_____Yr. B.Tech.(H) / B.Arch.(H) / M.Sc. / M.Tech(Dual)

Instructions: Please write in brief and to the point. No queries will be entertained during the examination. Please clearly state the assumptions made in the solution.
All questions are compulsory.

Section A

Q.1) a) Explain the four sector circular flow model. **[5 x 4 = 20]**

b) 'Saving is a vice not a virtue' – Explain through "Paradox of theft" with illustration.

c) Why does an increase in in the interest cause a decline in the bond price? What is its effect on the demand for money? Explain with the help of an example.

d) You work for a leading investment banking company. Your colleague is worried that increased government spending in India as reflected in the burgeoning budget deficits can adversely affect private investment and household consumption spending. Would you agree with her fully? Under what circumstances could she be right? Could there be situations when you could argue against her viewpoint? Elaborate.

Q.2) Suppose firms become very optimistic about future business conditions and invest heavily in new capital equipment. **[4+3+3=10]**

a) Draw an aggregate-demand and aggregate supply diagram to show the short-run effect of this optimism on the economy. Label the new levels of prices and real output. Explain why the aggregate quantity of output *supplied* changes.

b) Now use diagram from part (a) to show new long-run equilibrium of the economy. (For now, assume there is no change in the long-run aggregate-supply curve). Explain why the aggregate quantity of output *demanded* changes between the short run and the long run.

c) How might the investment boom affect the long-run aggregate-suppiy curve? Explain.

Section B

Q.3) Suppose the macro-model of an economy is given as follows. **[2 x 5 = 10]**

Consumption function: $C=150+0.6Y_d$
Investment Function: $I=300-5i$
Government spending: $G=200$
Tax function: $T=60+0.25Y$
Transfer payments: $TR=60$
Supply of money: $M_s=1500$
Transaction demand for money: $M_t=0.50Y$
Price level: $P=5$
Speculative demand for money: $M_{sp}= -25Y$ 25i

where absolute amounts are in billion rupees. Calculate the following based on the above information:

a) The equilibrium rate of interest and the level of income.
b) Fiscal multiplier in the Keynesian system.
c) The crowding-out effect of additional government spending (ΔG) of Rs. 50 billion on the equilibrium income and the interest rate.
d) The effect of increase in tax rate from $0.25Y$ to $0.30Y$ on the equilibrium income, given the increase in government spending and
e) Increase in real money supply (ΔM_s) required to counter balance the crowding-out effect of the government expenditure.

Q.4) If the tax rate is 40 percent, compute the before tax real interest rate and the after-tax real interest rate in each of the following cases: [2 x 3 = 6]

a) The nominal interest rate is 10 percent, and the inflation rate is 5 percent.
b) The nominal interest rate is 6 percent, and the inflation rate is 2 percent.
c) The nominal interest rate is 4 percent, and the inflation rate is 1 percent.

Q.5) The major macro aggregates for an economy are given as follows. **[2 x 3 = 6]**

Consumption: $C=60+0.8Y_d$ (Y_d is the disposable income)
Investment: $I=100-5i$
% interest rate: $i=6$
Government expenditure: $G=50$
Lump-sum tax: $T=15$
Transfer payments: $TR=60$
Exports: $X=70$
Imports: $M=12+0.2Y$

Calculate the following:

a) Equilibrium level of income.
b) Foreign trade multiplier.
c) New equilibrium level of income if government expenditure increases by 20.

Q.6) The following equation describes an economy. **[2 x 4 = 8]**

Consumption: $C=100+0.8Y_d$
Government expenditure: $G=100$
Real demand for money: $M_d=0.2Y-2i$
Price level: $P=2$
Investment: $I=150-6i$
Income tax: $t=0.25Y$
Nominal money supply: $M_s=300$

a) Compute the equilibrium level of income, Y and interest rate, i.
b) Suppose the economy opens up with the following exports (X) and import (M) equations: $X=100$ *and* $M=20+0.1y$
Find the new level of equilibrium income & interest rate if all other equations remain unchanged.
c) Find the direction and magnitude of the shift in the LM curve if the nominal money supply is doubled.
d) How is your answer in part (i) affected if price is also doubled along with nominal money supply?