INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR
Mid-Spring Semester 2017-18

Date of Examination: ________________ **Session (FN/AN)** ________ **Duration** 2 hrs
Subject No. : EP60008 Subject Name: Economics of Entrepreneurship
Department/Center/School: RMSoEE
Specific charts, graph paper, log book etc., required
Special Instructions (if any): 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.***

Q1. For the economy with the following specifications:

Consumption $C = 200 + 0.75Y_d$ Investment $I = 200 - 25r$
Government purchases: $G = 200$ Taxes: $T = 200$
Real demand for money function: $M_d = 0.5Y - 100r$ Nominal money supply: $M_s = 900$
Price level $P = 2$

[Where Y_d stands for disposable income, Y is income, and r is percent interest rate, and other figures are in Rs. crores] **[4 x 4 = 16]**

(a) Derive the IS and LM equations and compute the equilibrium level of income and interest rate.

(b) Suppose the government purchases and raised from **200** to **250** crores and nominal money supply is raised from **900** to **1100**. What is the magnitude of shift in the IS and LM curves? What are the new equilibrium levels of income and interest rate?

(c) With the initial values of monetary and fiscal policy, derive an equation for the aggregate demand curve.

(d) Show the effect of an increase in the government expenditure on income and budget surplus is a proportional tax model.

Q2. Consider an economy with the following specifications:

Consumption function, $C = 200 + 0.8Y_d - 500r$ Investment function, $I = 200 - 500r$
Government purchases, $G = 196$ Taxes, $T = 20 + 0.25Y$
Real demand for money, $M_d/P = 0.5Y - 100r$ Real money supply, $Ms/P = 900$

[Here Y_d = Disposable income, Y = National income, r = real rate of interest in percent terms] **[5 x 2 = 10]**

(b) If government purchases increase by Rs 300 crores, what should be the corresponding increase in the real money supply to realize the full simple Keynesian multiplier effect?

(c) Without solving for the output and the rate of interest can you deduce whether contractionary fiscal policy will increase or decrease investment?

Q3. A bond pays out \$100 in one year. Estimate the following: **[4 x 2 = 8]**

(a) What is the interest rate on the bond if its price is \$75?
(b) What is the relationship between bond prices and interest rates? Explain.

Q4. Using the SAS-LAS-AD framework, show with clear graphs only the possible impacts of the following exogenous changes on price and Y. [3 x 5 = 15]

(a) Wage decline
(b) Increase in Money Supply
(c) Resource prices rise
(d) Exchange rate increase
(e) Multiplier effect due to increased government spending

Q5. (a) Explain the impact of wealth effect, interest rate effect and international trade effect on the aggregate demand with the help of graphs. [6]

(b) What is Keynesian full employment of income caused due to multiplier effect of increased government spending and why it is not achieved fully? Explain with IS-LM curve. [5]