BACHELOR OF ARTS EXAMINATION, 2017
(2nd Year, 3rd Semester)
ECONOMICS (HONOURS)
MACROECONOMICS-I

Time: Two hours

Full Marks: 30

Answer Q1 and *any two* from the rest. All questions carry equal marks

1(a) In an economy, the following ratios are given, all expressed in terms of GDP (Y):
Tax ratio (T) = 0.25, Net Factor Payments from Abroad (NFP) ratio = 0.1, Depreciation (D) ratio = 0.01, Retained earnings (RE) ratio = 0.05, Subsidy to Public sector enterprises (SPUB) ratio = 0.01, Social security payments (SS) ratio = 0.1.
Given the above find – (i) Personal Disposable Income (PDY) ratio
(ii) If Y grows by 3% and PDY grows by 4%, all other ratios being kept fixed at their original ratios, then what is the percentage change in T?
(b) The following input output coefficient values are given for a 2-sector economy: $a_{11} = 0.2$, $a_{12} = 0.3$, $a_{21} = 0.2$, $a_{22} = 0.3$. Find the impact on sector 1's output if F_2 changes by 100 units, F_1 and the coefficients mentioned above remaining unchanged.   6+4

2. (a) Suppose an economy has 2 groups of income earners (having Keyenesian MPCs), namely, group A having income Y_A and group B having income Y_B, given that $Y_A < Y_B$. Further, government budget is given by government expenditure on goods and services (G) and expenditure on subsidy (S) financed by revenue collected through lump-sum taxes (T). It is assumed that group A gets the whole subsidy and group B bears the whole tax. Now if the government undertakes an expenditure programme through extra subsidies (with constant G), exactly financed by extra tax, will the balanced budget multiplier result in the simple Keynesian model hold here? If not, what may be the reason?
(b) In an economy, the following data are given (all variables have their usual meaning): a (autonomous consumption) = 100, b = 0.5, $t_0 = 0.2$, G = 50, I = 450. Now the government increases expenditure by 50, but expects a rise in income of 150. What should be the new tax rate here? (Derive the result by using the expressions for government expenditure multiplier and tax rate multiplier)   5+5

3. (a) Do you agree that the government expenditure multiplier in simple Keynesian model is more than that in the IS-LM model? If yes, show the reason by explaining the multiplier process in successive rounds.
(b) The following data are given for an economy:
$C = 50 + \frac{2}{3}(Y-T) - 500r$
$I = 1400 - 1000r + \frac{1}{4}Y$
$T = \frac{1}{4}Y$
$G = 50$
$M/P = \frac{1}{2}Y - 2000r$
$M = 2000$
$P_0 = 2$
Suppose the government targets interest rate cut and wants rate of interest to be made half of the existing rate. What should be the change in M which will achieve this (use multiplier formula).   4+6

4. (a) Prove that in complete Keynesian model, using the AD-AS diagram, liquidity trap is neither necessary nor sufficient condition for underemployment equilibrium.

(b) Suppose for a short run Phillips curve, the equation looks like:

$$\frac{\dot{P}}{P} = \alpha\left(\frac{\dot{P_e}}{P_e}\right) + h(U - U_N) \text{ where } 0 < \alpha < 1.$$

Show that in the long-run equilibrium, Phillips curve is steeper than Short run Phillips curve but not vertical.

6+4