ECO 332: VALUATION AND PORTFOLIO MANAGEMENT

END TERM (Winter 2024)

Time: 90 minutes **Max. Marks 35**

Instructions to candidates:

- Attempt all questions and all parts of the same question together.
- Make suitable assumptions wherever necessary and clearly state the same
- Start answering each question from a fresh page
- Proper presentation of your work is absolutely essential. Marks may be deducted if presentation is not proper.
- Marks for each question are mentioned alongside

1. Suppose that seven portfolios experienced the following results during a ten-year period:

Portfolio	Avg. Annual return (%)	Standard deviation (%)	Correlation with the market
A	15.6	27.0	0.81
B	11.8	18.0	0.55
C	8.3	15.2	0.38
D	19.0	21.2	0.75
E	-6.0	4.0	0.45
F	23.5	19.3	0.63
G	12.1	8.2	0.98
Market	13.0	12.00	
Treasury Bills	6.0		

a) Rank these portfolios using i) Sharpe's method ii) Treynor's method

b) Compare the rankings in part (a) and explain the reasons behind any differences noted. Explain why Sharpe's and Treynor's measures of performance give conflicting performance rankings? ***(8,3marks)***

2. MEGATRON LTD. paid a dividend of Rs.2.60 during the last year and the growth rate in the dividends is expected to be 8%. The current market price of the stock is Rs.30.00. The beta of the stock is 1.60 and the return on the market index is 13%. If the risk-free rate of return is 8%, by how much should the price of the stock be raised in percentage terms so that it is at equilibrium? ***(4 marks)***

3. ABC Ltd. currently pays Rs.5 as dividend which is expected to grow at 10% for the next three years after which it is expected to level off at 5% for ever. Determine the Value of the stock using the Multi-stage dividend discount model. Use a discount rate of 15% ***(8 marks)***

4. A fund manager has to pay Rs.10 lacs in 2 years time. He has options to invest in one year and three-year bonds.

One year bonds: Face Value Rs.1000/- Coupon 7%. Available in the market at YTM of 10%

Three year bonds: Face Value Rs.1000/- Coupon 8%. YTM 10%

The manager is considering investing a part of the amount in 1-year bonds and the balance in 3-year bonds.

a) Using immunization technique determine how much amount should be invested in each types of bonds.

b) Show how immunization technique accomplishes the desired result. Assume ending period YTM of 9%, 10% and 11%. ***(5,7 marks)***