(i) An investor has a portfolio P with 60% invested in A and 40% in B. What is the expected return and standard deviation of portfolio P?

(ii) If you want to combine A with either B or C which one would you choose and why?

3|12|19 (M)

(24)

[This question paper contains 8 printed pages.]

Your Roll No...............

Sr. No. of Question Paper : 4273

Unique Paper Code   : 61017926

Name of the Paper   : Investment Analysis and Portfolio Management

Name of the Course   : **Bachelor of Management Studies (BMS), 2019 (CBCS)**

Semester   : V

Duration   : 3 Hours

Maximum Marks   : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Attempt any **five** questions and answer all parts of each question together.

3. **All** questions carry equal marks.

4. Any assumptions made by you when attempting a question must be clearly stated.

P.T.O.

1. (a) Profit & Loss account of UltraTech Cement

Rs Crore

	Mar '19	Mar '18	Mar '17
Total Income	36269.1	30300.8	24451.33
Expenditure			
Raw Materials	8139.28	6397.28	5315.98
Power & Fuel Cost	7830.96	5959.5	3926.55
Employee Cost	1926.01	1706.24	1413.44
Selling and Admin Expenses	315.15	243.49	180
Miscellaneous Expenses	11075.69	9713.39	8013.38
Total Expenses	29287.09	24019.9	18849.35
PBDIT	6982.01	6280.9	5601.98
Interest	1419.15	1186.3	571.39
PBDT	5562.86	5094.6	5030.59
Depreciation	2010.27	1763.56	1267.87
Profit Before Tax	3552.59	3331.04	3762.72
Tax	1106.58	1070.56	1148.23
Reported Net Profit	2455.72	2231.28	2627.72
Equity Dividend	288.36	274.52	260.71
Corporate Dividend Tax	59.27	55.89	50.28
Shares in issue (lakhs)	2746.43	2746.14	2745.08

Balance Sheet

	Mar 19	Mar 18	Mar 17
EQUITIES AND LIABILITIES			
SHAREHOLDER'S FUNDS			
Equity Share Capital	274.64	274.61	274.51
Reserves and Surplus	27672.43	25648.41	23666.5
Total Shareholders Funds	27947.07	25923.02	23941.01
NON-CURRENT LIABILITIES			

(c) Explain briefly why portfolio planning is likely to be different for a young person in his first job and a person who is about to retire.

6. (a) List the inputs required for constructing a portfolio of 25 assets using the Sharpe Single Index model vs the Markowitz model. What are the advantages and disadvantages of the two models?

(b) RBI wants to reduce interest rates in the economy. As an investor, explain how this might impact your investment strategy.

(c) Two stocks A and B, with the following expected returns and standard deviations :

Stocks	Expected Return	Standard Deviation
A	15%	12%
B	18%	20%
C	18%	24%

The coefficient of correlation between returns of A and B is 0.8 and between A and C is 0.4

4. (a) A company is expected to pay dividend of Rs. 5 after one year. Dividends are expected to grow at 12 % for 2 years 8% for next two years and then perpetually at the rate of 6%. What should be paid for the share if required return is 10%?

(b) Briefly explain the Dow Theory in Technical analysis.

(c) Rank portfolios on the basis of Sharpe and Treynor's ratios.

Portfolio	Return	Standard deviation	Beta
X	22%	18%	1.1
Y	25%	20%	0.8
Z	30%	27%	1.4
Market Index	27%	25%	
T Bill rate	6%		

5. (a) Explain briefly the segmented market theory related to the shape of yield curves.

(b) Briefly explain the capital market line and security market line in CAPM with the help of diagrams and equations.

Long Term Borrowings (assume repayable over 5 years)	14939.28	13878.36	4200.12
Deferred Tax Liabilities [Net]	3544.35	3174.05	2773.56
Other Long Term Liabilities	6.27	34.84	37.27
Long Term Provisions	135.58	320.46	270.73
Total Non-Current Liabilities	18625.48	17407.71	7281.68
CURRENT LIABILITIES			
Short Term Borrowings	2642.74	2687.83	1015.84
Trade Payables	2653.74	2343.53	1713.8
Other Current Liabilities	6127.6	5709.27	5169.33
Short Term Provisions	439.17	301.64	159.43
Total Current Liabilities	11863.25	11042.27	8058.4
Total Capital And Liabilities	58435.8	54373	39281.09
ASSETS			
NON-CURRENT ASSETS			
Fixed Assets	38375.04	38684.72	24110.15
Non-Current Investments	5549.66	2214.19	2002.72
Long Term Loans and Advances	109.77	34.25	55.53
Other Non-Current Assets	2923.26	2854.23	637.64
Total Non-Current Assets	46957.73	43787.39	26806.04
CURRENT ASSETS			
Current Investments	1514.85	3948.71	5405.95
Inventories	3273.62	3101.5	2224.99
Trade Receivables	2097.59	1714.2	1276.17
Cash And Cash Equivalents	623.31	199.32	2217.74
Short Term Loans and Advances	1919.49	111.02	123.95
Other Current Assets	2049.21	1510.86	1226.25
Total Current Assets	11478.07	10543.26	12468.35
Total Assets	58435.8	54373	39281.09

Calculate long term debt to equity ratio, interest coverage ratio and debt service ratio for three years and comment on the same.

(b) Explain briefly the semi strong form of Efficient Market Hypothesis and implications for investors if market is semi strong efficient.

(c) Which stocks are undervalued / overvalued as per the CAPM when the following information is given (5 marks).

Stock	Return	Beta	Standard Deviation
X	25%	1.5	14%
Y	15%	1.2	12%
Z	12%	0.8	8%
Market Return	17%		
Risk Free Return	8%		

2. (a) Interest rates in the economy are 6% and an investor needs Rs. 5 lakhs after two years. The two bonds he narrowed down for investment are an 8% coupon bond with one year to maturity and a three year bond with 7% coupon. If duration cam help, how much money should he invest in each to immunize himself against price and reinvestment risk?

(b) In part a) above, what are the risks he would face if he invested only in the one year bond or the three year bond ? What are the assumptions of duration ?

(c) (i) What is the fair price for a perpetual preference share offering Rs. 5 annual coupon if the required yield is 6%?

(ii) A zero coupon bond offers Rs. 1000 on maturity after 5 years. What is the fair price at which it can be sold after 2 years if discount rate is 8%?

3. (a) ABC company's five year 11% coupon debentures with face value of Rs. 1000 were issued 2 years ago and are available at Rs. 1031.70 today. The debentures have a call and put option at Rs. 1000 one year from today. What is yield to maturity and yield to call?

(b) Explain SWOT analysis with the help of an industry of your choice.

(c) Stock A has 22.8% return and beta of 1.2. Stock B has 17.2% return and beta of 0.8. If these stocks are correctly priced according to the CAPM, what is the required return on stock C with a beta of 1.5?