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Your Roll No.....

7271 **G**

M.Com./Semester III/(NC)

Paper MJ 302 : Security Analysis and Portfolio Management

Time : 3 Hours *Maximum Marks* : 100

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

Attempt *All* questions.

Answers should be specific and precise.

1. Attempt any *five* out of the following :

   (*i*) Compare Equity shares, Bonds, Futures and Treasury bills in terms of risk and return.

   (*ii*) Aggressive investors are not risk averse. Do you agree ? Why ?

   (*iii*) Explain various attributes to be considered while evaluating alternative investments.

   (*iv*) What is the difference between Diversification and Hedging ?

P.T.O.

(v) What is strong form of market efficiency ? What are its implications ?

(vi) A mutual fund with beta of 1.20 has an expected rate of return of 14%. If risk free rate is 5% and you expect the market return to be 15%, should you invest in this fund ? What is fund's alpha ?

(vii) How many inputs are required for analyzing 1000 securities as per Markowitz model and as per Sharpe's single index model. 4×5=20

2. (a) Explain the following with examples :

(i) Yield to Call

(ii) Foreign Bonds 10

(b) A Rs. 1,000 par value bond carrying coupon rate of 12% is currently selling at a price of Rs. 880. Interest is payable semi-annually and the bond is redeemable at par after 5 years. Should an investor buy this bond if his required rate of return is 14% ? At what price the bond becomes an attractive investment ? 10

Or

(c) A Rs. 1,000 face value 7% coupon bond having maturity after 5 years is currently selling at yield to maturity

(YTM) of 14%. Interest is payable annually and bond is redeemable at par. Calculate the current market price of the bond and duration of the bond. Also interpret the results. 10

(d) Explain the following behavioural biases :

(*i*) Regret Avoidance

(*ii*) Framing : 10

3. (*a*) TTG Ltd. is growing at the rate of 6% p.a. The company's most recent earnings per share is Rs. 4 and dividend payout ratio is 50%. Mr. Mehta wants to buy and hold the share of TTG Ltd. for a period of 5 years. The P/E ratio of the share after 5 years is expected to be 8. Requiered rate of return is 14%. Calculate the fair price of the share at present. What is the expected selling price of the share after 5 years ? 10

(*b*) As a technical analyst how would you use the following technical indicators ? Explain in brief.

(*i*) Double Top formation

(*ii*) Market breadth

(*iii*) Relative strength ratio

(*iv*) Moving average analysis 10

P.T.O.

Or

(*c*) What is efficient market hypothesis (EMH) ? What are its implications ? What are the various forms of market efficiency ? How can they be tested ? 10

(*d*) The management of Gogia Ltd. expects that their company will grow at the rate of 16% p.a. for 3 years, after which the growth rate will become 12% p.a. for next 2 years. Thereafter the company will grow at a normal growth rate of 7% p.a. forever. The last dividend paid by the company was Rs. 3.50. The required rate return is 12%.

Calculate :

(*i*) Intrinsic value of the share

(*ii*) Fair price of the share one year from now. 10

4. (*a*) What is Capital Market Line ? How is it derived ? Why is it called so ? How is it different from Security Market Line ? 10

(*b*) The following information is available for stocks R and Q :

Stock	R	Q
Expected return (%)	15	20
Standard deviation (%)	20	40

Calculate :

(*i*) The minimum variance portfolio if coefficient of correlation between the stocks is –0.30. Also calculate risk and expected return of this portfolio.

(*ii*) Specify the conditions when this portfolio can have zero risk. Also calculate the retrun of such a portfolio. 10

Or

(*c*) Explain the following :

(*i*) Factors affecting options price

(*ii*) Socially responsible investing

(*iii*) Fama's decomposition measure

(*iv*) Bollinger bands. 10

(*d*) The following information is given in respect of mutual funds S and F :

Fund	AR	beta	Residual variance
S	14%	1.3	4%
F	18%	1.6	0

If risk free rate is 5%, expected market return is 10% and market variance is 30%, calculate Sharpe index, Treynor's ratio and Jensen's measures of permromance evaluation for funds S and F and interpret the results. 10

5. (*a*) Differentiate between Futures and Options. What are the various types of futures and options contracts ? Explain in detail. 10

(*b*) An investor has obtained the following details regarding a stock call option :

Current price of the stock = Rs. 135

Exercise price = Rs. 130

Risk free rate = 6% p.a.

Time to expiry = 3 months

Volatility (Standard deviation) = 0.40

(*i*) Calculate the value of the call option using Black-Scholes model.

(*ii*) What will be the value of a put option having same features as those of the above mentioned call option.

(Given that Ln(1.038) = 0.03774, Ln (0.963) = –0.03774, $e^{0.015}$ = 1.015) 10

Or

Explain the following :

(*i*) Straddle options strategy

(*ii*) Arbitrage pricing theory

(*iii*) Cost of Carry Model of Futures pricing

(*iv*) Assumptions of Capital Asset Pricing Model. 20