

2020

TWO YEAR M. COM. SEMESTER 3 EXAMINATION

(New Syllabus under CBCS)

Instructions for Examinees

The students are required to strictly adhere to the following instructions:

1. Use A4 size paper for giving the examination.
2. Write the following on the top of the first page of answer sheet:
 - i) Roll Number: (as per the Admit Card)
 - ii) Registration Number: (as per the Admit Card)
 - iii) Paper Code and Name of the Paper
 - iv) Date of the examination
 - v) Duration of examination (12 noon to 2pm)
3. Put page number on the top right of each page (including the first page).
4. Only one side of the paper should be used for examination.
5. Put your signature with date, at the bottom right of every page used.
6. Before sending your answer scripts, arrange the pages sequentially. Scan them in the order of page number and convert them into a single pdf. file.
7. Pdf. file name should be your **Full Roll Number <underscore> paper code**. While submitting the answer scripts, the subject of the mail will be exactly the same with the file name. [e.g., if the roll no of a student is C95/MCM/123456, for sixth paper (Paper Code DSE306A) the file name will be: C95/MCM/123456_ DSE306A
8. Submit your answer scripts in pdf. format within the stipulated time through designated email id given to you.
9. Preserve your answer scripts in soft as well as hard-copy form of all the papers of your examination.

2020

TWO YEAR M. COM. SEMESTER 3 EXAMINATION

Paper: DSE306A: Security Analysis and Portfolio Management (SAPM)

Full Marks -40

The figures in the margin indicate full marks

Candidates are required to give their answers in their own words as far as practicable

You are required to answer all parts of a question sequentially.

Time: 2 Hours

Duration of Examination: 12noon to 2pm

Module I

Answer any two questions.

1. (a) “The sensitivity of a firm’s earning to the business cycle is determined by a number of factors.” Explain the factors in the light of the given statement.

(b) Explain four criteria for evaluating an investment avenue.

(6 + 4)

2. (a) The current share price of Herbal Ltd. is Rs.57 and current dividend per share is Rs.1.37. The dividends had grown at the rate of 24% a year for the previous 5 years but are expected to decline linearly over the next 12 years to a final and perpetual growth rate of 6%. The required rate of return is 10%.

(i) Using H-Model and the information given above, estimate the intrinsic value of Herbal Ltd.’s share.

(ii) Determine the value of Herbal Ltd.’s shares if its normal growth of dividend period begins immediately.

(iii) Based on your answer (i) above, evaluate whether the company’s share appears to be fair valued, overvalued or undervalued?

(b) A Rs.100 par value bond bearing a coupon rate of 14% will mature after five years. Interest is payable semi-annually. Compute the value of the bond, if the required rate of return is 16%? Should an investor buy the bond if the bond is currently sold at Rs.110?

[Given: PVIFA (8%,10) = 6.710 ; PVIF (8%,10) = 0.463]

(3+1.5+1.5+4)

3. (a) You are considering investing in one of the following bonds:

| Bond | Coupon Rate | Maturity | Price per Rs.100 par value |
|-------------|--------------------|-----------------|-----------------------------------|
| A | 11% | 8 years | Rs.80 |
| B | 9% | 9 years | Rs.70 |

Your income tax rate is 34% and capital gain is effectively 10%. Capital gain taxes are paid at the time of maturity on the difference between the purchase price and par value. What is your post-tax yield to maturity on these two bonds? Which bond will you prefer for investment?

(b) A company is expected to pay a dividend of Re.1 one year from now with growth rate 5% thereafter. In the context of Constant Growth Dividend Model, the stock is correctly priced as Rs.10. What is the value of the stock two years from now?

[Given: PVIFA(10%,8) = 5.335 ; PVIFA (15%,8) = 4.487 ; PVIFA(8%,9) = 6.247 ; PVIFA(12%,9) = 5.328 ; PVIF (10%,8) = 0.466 ; PVIF (15%,8) = 0.327 ; PVIF (8%,9) = 0.500 ; PVIF (12%,9) = 0.361; FVIFA(10%,8) = 11.436 ; FVIFA(15%,8) =13.727 ; FVIFA(8%,9) = 12.488 ; FVIFA(12%,9) =14.776 ; FVIF(10%,8) =2.144 ; FVIF(15%,8) =3.059 ; FVIF(8%,9)= 1.999 ; FVIF(12%,9) =2.773]

(7+3)

4. (a) From the data given below, determine which of the firms might interest a growth investor? Use PEG ratio for your analysis.

| Company | Growth Rate (%) | Price (Rs.) | EPS (Rs.) |
|----------------|------------------------|--------------------|------------------|
| X Ltd. | 10 | 44.00 | 6 |
| Y Ltd. | 30 | 240.00 | 6 |
| Z Ltd. | 20 | 30.00 | 5 |

(b) Decompose ROE into its factors.

(c) Hindustan Cargo Ltd. is expecting a high growth for the next 5 years due to its tie up with a leading Logistics firm. Present return on equity is 18% and expected EPS is Rs.4 per share for the next year. Retention ratio is 51.35% and it is likely to be maintained for next five years. Growth rate after the high growth period is estimated at 4%. Calculate intrinsic value of Hindustan Cargo Ltd.'s stock, if expected rate of return is 8%.

(3+2+5)

Module – II

Answer *any two* questions.

5. (a) What do you understand by 'compound annual rate of return' and 'real return' on a security?

(b) The market price per share as on 31st March of 2015, 2016, 2017, 2018, 2019 and 2020 of Beta Ltd. are respectively Rs.765, Rs.780, Rs.810, Rs.790, Rs.800 and Rs.825 and the company has declared and paid a final dividend of Rs.4.00, Rs.4.00, Rs.5.50, Rs.5.00, Rs.5.00 and Rs.5.00 per share respectively over the same period. Beta Ltd. has also declared and paid an interim dividend of Rs.2.00, Rs.3.00 and Rs.2.00 per share in the month of November 2014, 2015 and 2019 respectively. An investor, who has been holding the shares of Beta Ltd., has sold them in December 2019 for Rs.875 per share.

Determine single period ex post total returns and the investor's risk in holding the shares of Beta Ltd. over his given holding period.

(4 + 6)

6. (a) Discuss some causal factors of 'diversifiable risk' of investment in a security.

(b) Consider the following –

| | Security X | Security Y |
|---------------------|------------|------------|
| Expected return (%) | 15 | 20 |
| Variance (%) | 9 | 16 |
| Covariance | 6.00 | |

In the light of Markowitz diversification principle, advise whether a risk averse investor will have any diversification advantage in forming a portfolio of the above two securities. In case you recommend portfolio formation, then also determine the minimum variance portfolio combination and risk-return profile of such combination.

(3 + 7)

7. “All efficient portfolios are feasible but all feasible portfolios are not efficient in nature.”- Do you agree with the statement? Justify your answer with a graphical illustration of two risky securities’ portfolio.

(10)

8. (a) “Systematic risk is the minimum level of risk that can be obtained for a well-diversified portfolio”- Examine the statement with the help of graphical illustration.

(b) What is meant by ‘portfolio diversification’ in the context of investment? Distinguish between naïve diversification and Markowitz diversification strategies of portfolio.

(4 + 1 + 5)