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# UNIVERSITY OF PETROLEUM \& ENERGY STUDIES End Semester Examination - December, 2021 

Program: B.Com (Hons)<br>Subject/Course: Investment Analysis and Portfolio Management<br>Course Code: FINC 3014

Semester: 5
Max. Marks: 100
Duration: 3 Hours

## Part A: Answer ALL questions

Question 1. Identify the statements below as True/False $(2 \times 5=10)$ [CO1]
a) Adverse selection is a problem created by asymmetric information after the transaction occurs.
b) A speculator focuses more on returns than safety and seeks very large returns from the market quickly.
c) Government of India Dated Securities are regular coupon paying debt instruments.
d) A private placement is an issue of shares by a company privately to its existing shareholders as on a record date.
e) A primary trend in the stock market represents the bull and bear phases in the market.

Question 2. Answer the following given below ( $2 \times 5=10$ Marks) [CO2]
a) The price of a dated Government of India bond maturing in 10 years increases. The corresponding yield to maturity should (choose the right answer):
i. Increase
ii. Decrease
iii. Remain same
iv. Data insufficient
b) A 91-Days RBI T-Bill with 40 days remaining to maturity has a yield of $7.75 \%$. If par value of T-bill is 100 , the current price is $\qquad$ . (Compute the answer and fill in the blank)
c) The price appreciation/depreciation of an asset divided by the beginning price represents
$\qquad$ return while the periodic income in relation to the beginning price represents $\qquad$ returns. (choose the right answer)
i. Capital, Current
ii. Current, Capital
iii. Current, Current
iv. Capital, Capital
d) In an order book, the market order to sell is matched with ...... prices and market order to buy is matched with ...... prices. (choose the right answer)
i. Bid, Ask
ii. Ask, Ask
iii. Bid, Bid
iv. Ask, Bid
e) If RSI of a share is above 70, then the share is ...... (choose the right answer)
i. Overbought
ii. Oversold
iii. Either i or ii
iv. Neither i nor ii

## Part B: Answer ALL questions

Question 3. You are evaluating two securities for investment. Security X provides a return of 5\%, $-1 \%, 3 \%,-2 \%$, and $-4 \%$ in the last five years. Whereas, Security Y has provided a return of $-5 \%$, $6 \%, 4 \%,-1 \%$, and $3 \%$. Determine the best security for investment by comparing the Geometric Mean (GM) of returns of the two securities. (5 Marks) [CO 2]

Question 4. Appraise in your own words, the idea behind "Private Placement" of shares. (5 Marks) [CO 3]

Question 5. Appraise the role of "Secondary Market" such as stock exchanges for investors. (5 Marks) [CO 3]

Question 6. The prevailing Yield to Maturity (YTM) in the bond market is 6\%. Co. ABX corporate bonds with 5 years left to maturity pays $7.8 \%$ coupon annually. The face value of the bond is ₹ 100 . Determine the price of the bond. (5 Marks) [CO 2]

## Part C: Answer ALL questions (Question 9 has internal choice)

Question 7. The Government intends to raise ₹5,000 crores from an issue of 91-days T-Bill to meet its short-term obligations. Bids are invited for the issue of the T-Bill in a competitive bidding process. The following bids are received: (10 Marks) [CO 3]
Bidders $\quad$ Bid Price ₹ $\quad$ Bid Amount in ₹ Crores

| $\mathbf{A}$ | 99.52 | 970 |
| :---: | :---: | :---: |
| $\mathbf{B}$ | 98.99 | 578 |
| $\mathbf{C}$ | 97.92 | 937 |
| $\mathbf{D}$ | 97.46 | 864 |
| $\mathbf{E}$ | 97.98 | 1026 |
| $\mathbf{F}$ | 99.19 | 1077 |
| $\mathbf{G}$ | 98.56 | 970 |
| $\mathbf{H}$ | 97.42 | 996 |
| $\mathbf{I}$ | 97.78 | 721 |
| $\mathbf{J}$ | 99.81 | 1405 |

You are required to determine the cut-off bid price and the amount received through:
a) Uniform price bid
b) Multiple price bid

Question 8. As a technical analyst, how can you analytically explain your client the following: [CO 4]
a) Dow theory (4 Marks)
b) Breadth of the market (3 Marks)
c) Market Trend (3 Marks)

Question 9. Answer any one of the following:
Question 9-A. You are considering two stocks in similar industries for investment. The following fundamental information is given to you: (10 Marks) [CO 4]

|  | Stock A | Stock B | Industry Average |
| :--- | :---: | :---: | :---: |
| Price | 2346.73 | 1115.67 | - |
| 52-Weeks High | 2389.64 | 1988.23 | - |
| 52-Weeks Low | 1054.33 | 935.54 | - |
| ROE | $10.45 \%$ | $10.13 \%$ | $8.45 \%$ |
| P/E | 76.55 | 21.25 | 44.3 |
| P/B | 8.24 | 4.35 | 6.68 |
| EPS Growth | $7.00 \%$ | $6.33 \%$ | $5.50 \%$ |
| Sales Revenue Growth | $7.90 \%$ | $7.12 \%$ | $5.90 \%$ |
| PAT Growth | $11.00 \%$ | $9.97 \%$ | $6.75 \%$ |

Analyze stocks A and B based on the fundamentals in the table. Recommend the best stock as per your analysis and give reasons.

## Or,

Question 9-B. Analyze and Explain the outlined patterns (in red) in the following technical charts (Chart A and Chart B): (10 Marks) [CO 4]

Chart A


Chart B


Part D: Answer ALL questions (Question 11 has internal choice)
Question 10. Your client Miss. P has asked you to evaluate her investment portfolio. The following information is furnished by Miss P: [CO 4]

| Assets | Purchase <br> Price | No. of <br> Units | Held for <br> (Period) | Current <br> Price | Portfolio <br> Weight |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Large Cap Fund | $₹ 135.70$ | 120 | 6 Months | $₹ 147.50$ | $12 \%$ |
| Mid Cap Fund | $₹ 250.00$ | 150 | 1 year | $₹ 435.80$ | $44 \%$ |
| Small Cap Fund | $₹ 112.00$ | 80 | 8 Months | $₹ 108.60$ | $6 \%$ |
| Gold ETF | $₹ 76.50$ | 180 | 3 Month | $₹ 88.25$ | $11 \%$ |
| Debt Funds | $₹ 255.25$ | 135 | 1 Year | $₹ 305.50$ | $28 \%$ |

a) What is the annualized rate of return on each of Miss. P's investments? (8 Marks)
b) Which investment has is the best investment for Miss. P? (2 Marks)
c) What is the overall portfolio return of Miss. P in percentage per annum? (5 Marks)

Question 11. Answer any one of the following:
Question 11-A. As a financial analyst you are required to determine the yield to maturity (YTM) of a corporate bond that you are evaluating. The bond is currently available at ₹ 107.5 in the market and pays a coupon of $9.10 \%$ annually. The bond will mature in 6 -years and has a face value of ₹ 100 . You are considering two reference rates, $7 \%$ and $8 \%$ for your calculations. (15 Marks) [CO 4]

## Or,

Question 11-B. You are evaluating two shares, P and Q for your investment client. The return on P and Q are $11 \%$ and $17.5 \%$ respectively. The standard deviation of returns of P and Q are $8 \%$ and $13.75 \%$ respectively. The return of $P$ and $Q$ have a correlation of -0.28 . You have decided to invest $40 \%$ of the client's money in P and $60 \%$ in Q . [CO 4]
a) Determine the return and standard deviation of the portfolio given the information. (7 Marks)
b) Determine the optimal weights for the portfolio that will minimize the portfolio standard deviation and calculate the portfolio return for the optimal weight. (8 Marks)

