ST. PHILOMENA'S COLLEGE (AUTONOMOUS), MYSORE			
PG DEPARTMENT OF COMMERCE			
QUESTION BANK (Revised Curriculum 2018-20)			
SECOND YEAR- THIRD SEMESTER (2018-20 Batch)			
Sub: Code-C0310 COURSE TITLE (PAPER TITLE): SECURITY ANALYSIS AND PORTFOLIOMANAGEMENT QP Code: 53203			
UNIT	**Sl. No.**	**QUESTIONS**	**MARKS**
1	1.	Briefly explain the term investment and its objectives.	5
1	2.	Differentiate between Economic and Financial investment.	5
1	3.	Distinguish Between Systematic and Unsystematic Risk	
1	4.	Define the terms of systematic and unsystematic risk with examples	
1	5.	Distinguish between individual investors and institutional investors.	5
1	6.	Briefly explain the meaning of security analysis. What are the objectives of security analysis?	5
1	7.	Describe systematic risk? What are its main components?	5
1	8.	Explain 'Unsystematic risk'.	5
2	9.	What is Fundamental Analysis. What are its three components?	5
2	10.	Give a brief account of Economy Analysis.	5
2	11.	Explain the concept of Leading indicators with examples.	5
2	12.	Explain the concept of Lagging indicators with examples.	5
2	13.	Explain the concept of Coincidental indicators with examples.	5
2	14.	Write short notes on the following: a) Econometric Model Building b) Opportunistic Model Building	5
2	15.	Write short notes on the following: a) Anticipatory surveys b) Barometric approach	5
2	16.	Explain briefly the phases involved in long range economic forecasting.	5
2	17.	Explain the industry life cycle analysis in brief.	5
2	18.	Describe Technical analysis? Explain its importance.	5
2	19.	Differentiate between Fundamental and Technical Analysis.	5
2	20.	Explain the forms of Efficient Market Hypothesis.	5
2	21.	Explain the concept of Random Walk theory.	5
3	22.	Differentiate between Traditional and Modern portfolio theory.	5
3	23.	Describe an efficient portfolio? How is it different from Feasible set of portfolios?	5
3	24.	Summarize the limitations of Markowitz portfolio model?	5
3	25.	How does Sharpe's Single Index model overcome the limitation of Markowitz model?	5
3	26.	The Alpha and Beta of securities are 3% and 1.80 respective the expected market is 20%. What is the return expected by securities?	5
3	27.	Consider 2 securities P and Q with expected return of 15% and 24% and the Standard deviation of 35% and 52% respective. Calculate the Standard Deviation of portfolio	5

		weighted equally within the securities if their correlation is -0.9.	
2	28.	Distinguish between fundamental and technical analysis?	5
2	29.	Explain Japanese Candle Stick chart.	10
2	30.	A bond with Coupon Rate of 8%, par value of Rs. 1000 and maturity of 5 years is selling at a price of Rs 1100. Calculate using Yield-To-Maturity method.	5
2	31.	A bond with Coupon Rate of 8%, par value of Rs. 1000 and maturity of 5 years is selling at a price of Rs 700. Calculate using Yield-To-Maturity method.	5
2	32.	The company proposes to issue 10 years zero coupon bond of face value of Rs. 1000 each. The company expects an annualised return of 9 %. What is the discounted price at which the bond is to be issued?	5
2	33.	A bond has a face value of Rs. 1000 at the coupon rate of 9% p.a. The bond is currently selling in secondary market at the price of Rs. 800. Calculate the current yield.	5
2	34.	The estimated earning of XYZ company ltd., is Rs. 15 the return on equity is 18%. The capitalization rate is 20%, dividend per share is Rs. 12. Calculate the market value as per Walter's model.	5
2	35.	XYZ company has 1 lakh equity share worth of Ra. 10 lakh and the company expected capital rate of 10% by retaining the shares by 30%. The Return on Equity is 15%. Calculate the value of equity shares of the company.	5
2	36.	The estimated earnings per share of ABC Co. Ltd., is Rs. 12, the retention ratio followed by the company is 40%, the return on equity is 14% and the capitalization rate is 15%. Calculate the value of equity share of the company.	5
2	37.	A Portfolio has 4 securities and expected returns from 4 securities are as follows: $\gamma 1$ = 15%, $\gamma 2$=12%, $\gamma 3$=14%, $\gamma 4$=20%. The funds invested in 4 securities are Rs. 200,000, Rs. 280,000, Rs. 320,000, Rs. 400,000 respectively. Find the expected return from portfolio.	5
2	38.	An investor purchases the equity share of a company from the secondary market. He prefers to hold the share for one year and sells it after one year. He expects a dividend of Rs. 5 per share and hopes to dispose the share in the secondary market at a price of Rs. 70 after one year. He expects a return of 20% on his investment considering the level of risk calculate the present value of the share.	5
2	39.	An investor desires to purchase the share of a company from the secondary market. The investor prefers to hold the share for a period of four years and dispose the share after four years. He expects to get a dividend of Rs. 6, Rs. 6.50, Rs. 7.50 and Rs. 9.00 per share in the next four years respectively. He is hopeful in selling the share in the secondary market at a price of Rs. 120 after the end of four years. He expects a return of 22% on his investment considering the level of risk associated with it. Calculate the present value of the share to the investor.	5
4	40.	Explain portfolio Evaluation in brief and its stages.	5
4	41.	Explain the need for portfolio evaluation.	5
2	42.	What is active portfolio revision strategy	5
2	43.	What is passive portfolio revision strategy	5

2	44.	XYZ Ltd., has 14% debenture with face value of Rs. 100 that matures at par in 15years. Debenture is callable in 5 years at Rs. 114. It currently sells for Rs. 105. Calculate each of following: (i) Current yield (ii) Yield-to-maturity.	10
2	45.	A bond with a Face Value of Rs 1000, maturity period of 10 years and Current Rate of 10% was issued 4 years ago. The current interest rate in market for security of similar nature is 12% p.a. Determine the price of the bond.	10
2	46.	Earnings of ABC Ltd., before tax is 12,00,000. The company pays 70% of its profits on dividend. The company has 100,000 shares of 10 each tax rate is 20% return on investment is 15% required rate of return is 10%. Calculate market value of the share as per Walter's and Gordon's model.	10
2	47.	Earnings of ABC Ltd., after tax is Rs. 10cr. The company pays 80% of its profits as dividends the company has 50 lakhs share of Rs 100 each, rate of return on investment is 14%, cost of equity is 12%. Calculate market value of share as per Walter's and Gordon's model.	10
2	48.	A chemical company paid a dividend of Rs 2.75 during the current year forecast suggested that the earnings and dividends of the company are likely to grow at the rate of 8% over the next 5 years and at the rate of 5% thereafter. The required rate of return is 20%. What is present value of stock?	10
2	49.	XYZ company paid a dividend of Rs 3.75 during the current year forecast suggested that the earnings and dividends of the company are likely to grow at the rate of 8% over the next four years and at the rate of 5% thereafter. The required rate of return is 30%. What is present value of stock?	10
2	50.	Equity share of a company offers a current dividend of Rs. 4 per share and rate of dividend is expected to grow at 6% for first 4 years and 8% per year thereafter which is constant. Rate of Return required is 15%. Find the intrinsic value.	10
2	51.	A company has paid a dividend of Rs. 1.5 per share during the current year, the company is expected to pay a dividend of Rs. 2 per share during the next year. Analysts forecast a dividend of Rs. 3 and Rs. 3.5 per share during the subsequent two years. After three years the company is expected to pay dividends that are expected to grow at 10% every year. Investor expects a return of 20%. Calculate the intrinsic value.	10
2	52.	Explain the short-term forecasting techniques used in Economic forecasting? Explain them in brief.	10
1	53.	Explain Porter Model of industry analysis.	10
3	54.	Outline the steps involved in the analysis and construction of a portfolio of securities?	10
3	55.	Explain Markowitz portfolio theory.	10
3	56.	Describe Markowitz efficient frontier and explain how it dominates the portfolio that lie below it.	10
3	57.	Calculate expected return and variance of Portfolio assuming that weight is 0.75 for security A and 0.25 for security B; Expected return for security A is 18% and its Standard Deviation is 12% while expected return and standard deviation for security B are 22% and 20%. The correlation between 2 securities is 0.6.	10
3	58.	From the following, calculate portfolio variance, Standard deviation and expected	10

<table>
<tr><td></td><td></td><td>return.
• The weights of the portfolio are 6:4
• Standard Deviation of A is 0.08 and B is 0.10
• Expected Return is 12% and 16%.
i. When coefficient correlation is 1
ii. When coefficient correlation is -0.5
iii. When coefficient correlation is -1.</td><td></td></tr>
<tr><td>3</td><td>59.</td><td>From the following, calculate portfolio variance and Standard deviation
a) Portfolio of Security A and B, each having equal weight in the portfolio = 1
b) Standard deviation of security A = 0.2 and Security B = 0.2
c) Coefficient of correlation between Security A and B = 1</td><td>10</td></tr>
<tr><td>3</td><td>60.</td><td>Past data for 4 years on 2 securities A&B show that the securities have yielded return on investment as under
<table>
<tr><th>Year</th><th>Return from Security A</th><th>Return from Security B</th></tr>
<tr><td>1998-99</td><td>15%</td><td>9%</td></tr>
<tr><td>1999-00</td><td>5%</td><td>11%</td></tr>
<tr><td>2000-01</td><td>18%</td><td>15%</td></tr>
<tr><td>2001-02</td><td>7%</td><td>10%</td></tr>
</table>
Calculate the average return offered by the 2 securities and their relative riskiness.</td><td>10</td></tr>
<tr><td>3</td><td></td><td>The possible returns from 2 securities and their probabilities are given below:
<table>
<tr><th colspan="2">Security A</th><th colspan="2">Security B</th></tr>
<tr><th>Possible return</th><th>Probability</th><th>Possible return</th><th>Probability</th></tr>
<tr><td>15%</td><td>0.5</td><td>12%</td><td>0.6</td></tr>
<tr><td>17%</td><td>0.2</td><td>20%</td><td>0.2</td></tr>
<tr><td>19%</td><td>0.1</td><td>22%</td><td>0.1</td></tr>
<tr><td>20%</td><td>0.2</td><td>34%</td><td>0.1</td></tr>
</table>
Estimate the expected return from the securities. Which of the 2 securities has lesser risk?</td><td>10</td></tr>
<tr><td>1</td><td>61.</td><td>The equity share of a particular company is currently yielding a return of 18% p.a. an assessment of the possibilities of the earning capacity of the share in future indicates the following.
• Earning 18% return has a probability of 0.40
• Earning 25% return has a probability of 0.10
• Earning 22% return has a probability of 0.10
• Earning 20% return has a probability of 0.10
• Earning 16% return has a probability of 0.30
Calculate the expected return and standard deviation from the share.</td><td>10</td></tr>
</table>

1	62.	The rate of return on a given stock and the return from the market portfolio for 10 periods are given below. **Period** | **Return from security (%)** | **Market return (%)** 1 | 12 | 10 2 | 11 | 9 3 | 10 | 7 4 | 13 | 12 5 | 13 | 11 6 | 12 | 11 7 | 11 | 8 8 | 10 | 7 9 | 10 | 9 10 | 9 | 8 Calculate Beta for the security.	10
1	63.	Calculate the Covariance of the returns from stock A with the market return and the correlation coefficient between the stock and the market. Also find the Beta value of stock A. **Period** | **Return from Stock A (%)** | **Market Return (%)** 1 | 12 | 15 2 | 11 | 13 3 | 13 | 17 4 | 9 | 11 5 | 10 | 14 6 | 8 | 9 7 | 3 | 5 8 | 7 | 9 9 | 5 | 6 10 | 6 | 7	10
1	64.	Given below are return on IBM and BSE census for 5 years. Calculate beta and alpha and correlation. **Year** | 1 | 2 | 3 | 4 **Return on BSE** | 0.1 | 0.2 | 0.3 | 0.4 **Return on IBM** | 0.2 | 0.3 | 0.5 | 0.4	10
4	65.	Compare the following two portfolios two portfolio on the basis of Sharpe ratio and Treynor and offer your comments. **Portfolio** | **Return from Portfolio** | **Std deviation (%)** | **Beta**	10

		A	10%	13	0.75	
		B	20%	26	1.45	
		Market Portfolio	14%	18	1	
		Interest free rate of return is 8%.				
4	66.	Compare the following two portfolios two portfolio on the basis of Sharpe ratio and Treynor and offer your comments.				10
		Portfolio	**Return from Portfolio**	**Std deviation (%)**	**Beta**	
		A	10%	15	0.6	
		B	25%	25	2.6	
		Market Portfolio	18%	20	1	
		Interest free rate of return is 8%.				
4	67.	Compare the following two portfolios two portfolio on the basis of Sharpe ratio and Treynor and offer your comments.				10
		Portfolio	**Return from Portfolio**	**Std deviation (%)**	**Beta**	
		A	10%	13	0.4	
		B	20%	26	3	
		Market Portfolio	14%	18	1	
		Risk free rate of return is 8%.				
4	68.	There are four funds whose details are given below. Using Jensen's measures identify the funds that have earned excess returns.				10
		Name of fund	**Return earned (%)**	**Beta**	**Standarddeviation**	
		Super star	25	1.13	22.7	
		True Balance	17	0.95	17.2	
		Sure Return	20	0.98	20.9	
		Safety Net	15.3	1	15.6	
		Risk free rate of return is 8.5%.				
4	69.	There are four funds whose details are given below. Using Jensen's measures identify the funds that have earned excess returns.				10
		Name of fund	**Return earned (%)**	**Beta**	**Standard deviation**	
		Super star	35	1.13	22.7	
		True Balance	27	0.95	17.2	
		Sure Return	30	0.98	20.9	
		Safety Net	25.3	1	15.6	
		Risk free rate of return is 8.5%.				

3	70.	Consider portfolio of 6 securities with the following characteristics. <table><tr><th>Security</th><th>Weight</th><th>Alpha</th><th>Beta</th><th>Residual variance</th></tr><tr><td>1</td><td>0.1</td><td>-0.8</td><td>0.91</td><td>23</td></tr><tr><td>2</td><td>0.15</td><td>0.76</td><td>0.87</td><td>60</td></tr><tr><td>3</td><td>0.2</td><td>2.52</td><td>1.17</td><td>52</td></tr><tr><td>4</td><td>0.1</td><td>-0.16</td><td>0.97</td><td>86</td></tr><tr><td>5</td><td>0.25</td><td>1.55</td><td>1.07</td><td>67</td></tr><tr><td>6</td><td>0.2</td><td>0.47</td><td>0.86</td><td>82</td></tr></table>Assuming return on market to be 14.5% and Standard Deviation of return on market to be 16%. Calculate portfolio return and risk and offer your comments.	15
3	71.	Consider portfolio of 4 securities with the following characteristics. Calculate return and risk if return on market is 16.4% and Risk is 14%. <table><tr><th>Security</th><th>Weight</th><th>Alpha</th><th>Beta</th><th>Residual variance</th></tr><tr><td>1</td><td>0.2</td><td>2</td><td>1.2</td><td>320</td></tr><tr><td>2</td><td>0.3</td><td>1.7</td><td>0.8</td><td>450</td></tr><tr><td>3</td><td>0.1</td><td>-0.8</td><td>1.6</td><td>270</td></tr><tr><td>4</td><td>0.4</td><td>1.2</td><td>1..3</td><td>180</td></tr></table>	15
3	72.	A portfolio has 6 securities, the table below shows the weights of the securities in the portfolio. The alpha and beta co-efficient of the securities and residual variance of securities are given below. If the market return is 20% and if the variance of market return is 280. Calculate the expected portfolio return and portfolio variance using SIM. <table><tr><th>Security</th><th>Weight</th><th>Alpha</th><th>Beta</th><th>Residual variance</th></tr><tr><td>A</td><td>0.3</td><td>3</td><td>1.9</td><td>260</td></tr><tr><td>B</td><td>0.15</td><td>2</td><td>1.1</td><td>320</td></tr><tr><td>C</td><td>0.05</td><td>1</td><td>0.9</td><td>340</td></tr><tr><td>D</td><td>0.2</td><td>1.25</td><td>1.2</td><td>420</td></tr><tr><td>E</td><td>0.1</td><td>0.5</td><td>0.8</td><td>290</td></tr><tr><td>F</td><td>0.2</td><td>1.1</td><td>1.3</td><td>210</td></tr></table>	15
3	73.	From the following, find the portfolio that are well diversified according to Sharpe's and Treynor's ratio and offer your comments. <table><tr><th>Portfolio</th><th>Return (%)</th><th>Std deviation (%)</th><th>Beta</th></tr><tr><td>A</td><td>16.6</td><td>24.7</td><td>1.24</td></tr><tr><td>B</td><td>15.15</td><td>20.25</td><td>0.96</td></tr><tr><td>C</td><td>9.4</td><td>15.7</td><td>0.82</td></tr><tr><td>D</td><td>21.25</td><td>16.4</td><td>1.13</td></tr><tr><td>E</td><td>18.3</td><td>18.2</td><td>1.02</td></tr></table>Risk free return is 7%	15
3	74.	From the following, find the portfolio that are well diversified according to Sharpe's	15

		and Treynor's ratio. **Portfolio** | **Return (%)** | **Std deviation (%)** | **Beta** A | 10 | 19.2 | 1.3 B | 12.15 | 20.25 | 0.98 C | 11.5 | 16.35 | 0.95 D | 20.25 | 18.4 | 1.2 E | 20.1 | 20.2 | 1.2 Risk free return is 8%	

Note: The attached question paper is to be taken as a model question paper and all the M. Com III semester Question papers will have the similar pattern.

Q.P Code: 53203

St. Philomena's College (Autonomous) Mysore

III Semester M.Com Final Examination : December - 2019

Subject: COMMERCE

Title: Security Analysis and Portfolio Management (SC)

Time: 3 Hours **Max Marks: 70**

PART –A

Answer any FIVE of the following questions. **5×5=25**

1. Distinguish between investors and speculators.
2. Explain briefly the types of systematic risk.
3. Mr. Amar's portfolio consists of six securities. The individual returns of each of the security in the portfolio is given below:

Security	Proportion of investment in the portfolio	Return
A	10%	18%
B	25%	12%
C	8%	22%
X	30%	15%
Y	12%	6%
Z	15%	8%

Calculate the weighted average of return of the securities consisting the portfolio.

4. Write a short note on Efficient Frontier.
5. Kaveri Industries Ltd. is expected to generate future profits of Rs.54,00,000. What is its value of business if investments of this type are expected to give an annual return of 18%?
6. Briefly explain the Sharpe's measure for portfolio with an example.
7. Calculate the expected return and variance of a Portfolio comprising two securities, assuming that the Portfolio weights are 0.65 for security 1 and 0.35 for security 2. The expected return for Security 1 is 20% and its standard deviation is 15%. While the expected return for Security 1 is 25% and its standard deviation is 30%. The correlation co-efficient between two security is 0.6
8. Evaluate the portfolios using Jensen's Model from the following data.
   a) The returns of the Portfolio A, Portfolio B and Portfolio C is 20%, 25% and 18% respectively.
   b) Standard Deviation of the Portfolio A, Portfolio B and Portfolio C is 5%, 6% and 4% respectively.
   c) Beta of the Portfolio A, Portfolio B and Portfolio C is 1.5, 1.6 and 1.4 respectively.
   d) Market return is 12% and Risk-free rate is 7%.

PTO

PART – B

Answer any THREE of the following questions: **3×10=30**

9. Explain the role of fundamental analysis in security analysis and portfolio management.
10. Write a note for your Executive Director giving him a brief on broad objectives of portfolio management being practiced in your investment decision.
11. Explain the weak form of EMH. Describe the empirical tests used for testing the weak form efficiency.
12. The rate of return on Stock A and market portfolio for 10 periods are given below:

Period	1	2	3	4	5	6	7	8	9	10
Return on Stock (%)	10	15	18	14	16	16	18	4	14	15
Return on Market (%)	12	14	13	10	9	13	14	7	12	16

a) What is the beta for Stock A?
b) What is the characteristic line for Stock A?

13. The rate of the two assets under four possible states of nature are given below:

State of Nature	Probability	Return on asset 1	Return on asset 2
1	0.20	-5%	10%
2	0.30	15%	12%
3	0.40	18%	14%
4	0.10	22%	18%

a) What is the Standard deviation of the returns on asset 1 and asset 2?
b) What is co-variance between the returns on asset 1 and asset 2?

PART – C

14. **Case Study (Compulsory)** **1×15=15**

	ITC		Concor		Asian Paints	
Year	Price	Return	Price	Return	Price	Return
2014	71	-	287	-	350	-
2015	120	69	507	77	375	7
2016	150	25	1223	141	700	87
2017	240	60	2200	80	800	14
2018	180	-25	1500	-32	1100	38

1) Using CAPM Model Suggest which scripts are riskier and why?
2) Suggest an optimal portfolio with respect to above scripts.

SAPM 2019

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