

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM / PGDM (M) / PGDM (SM)

FOURTH TRIMESTER (Batch 2016-18)

END TERM EXAMINATIONS, SEPTEMBER 2017

SET - A

Course Name	Investment Management	Course Code	FIN 404
Max. Time	2 hours	Max. Marks	40 MM

INSTRUCTIONS: Attempt all Questions

Q1. Equation for single index model for any security (i) at time t is $R_i(t) = \alpha_i + \beta_i R_M(t) + e_i(t)$. When return of the security is regressed with nifty return for a year, following output arise.

- Interpret the below mention result (5 marks)
- If $R_M = 0.08$ and $\sigma^2 = 0.02$, what will be the expected value and standard deviation of security (i) at time t. firm related surprises are 3% (7 marks)

Regression Statistics								
R Square	0.65							
Adjusted R Square	0.62							
Standard Error	0.05							
Observations	1245							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	0.07	0.07	290.20	0.00			
Residual	1244	0.05	0.0027					
Total	1245	0.12						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.05	0.01	6.14	0.00	0.03	0.05	0.03	0.05
X Variable 1	1.23	0.09	17.04	0.00	1.10	1.78	1.10	1.78

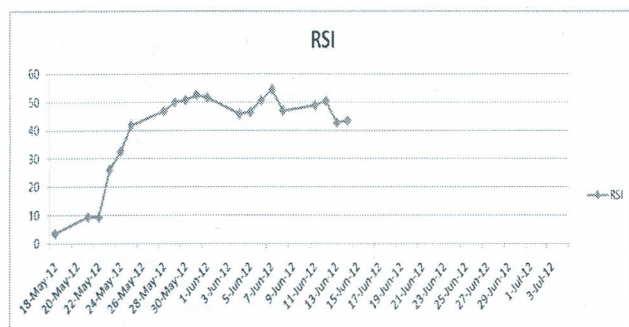
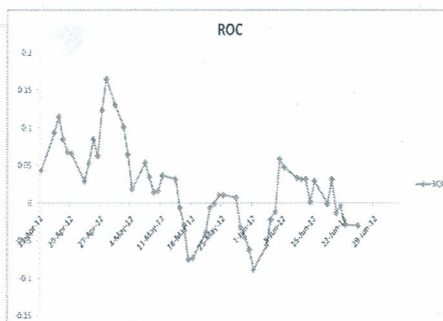
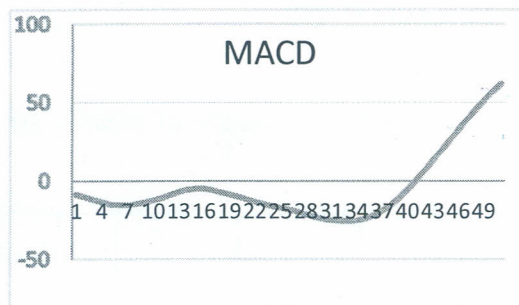
Q2. Consider the two (excess return) index model regression results for Stock A and Stock B. The risk free rate over the period was 6% and the market average return was 14%. Performance is measured using an index model regression on excess return. (7 marks)

Stock	A	B
Excess Return of a stock is	$1\% + 1.2 (r_m - r_f)$	$2\% + 0.8 (r_m - r_f)$
R square	.576	.436
Residual Standard deviation $\sigma (e)$	10.3%	19.1%
Standard deviation of excess return $\sigma (A)$ and $\sigma (B)$ resp	21.6%	24.9%

Which stock to choose for investment based on various portfolio performance evaluation criteria and why? Justify results on each criteria and compare the same.

Q3. 9 Days MACD, 7 days ROC and 14 Days RSI of M&M is plotted in three different charts below.

- Interpret the result by explaining the significance of all three oscillators. (8 marks)
- Is there any sign of overbought and over sold conditions? If Yes, in which month and why? (5 marks)



Q4. Suppose the rate of return on short term default less government security is about 5%. Suppose also that the expected rate of return required by the market for a portfolio with a beta of 1 is 12%.

- What is the expected rate of return on the market portfolio? (2 marks)
- What would be expected rate of return on a stock with beta zero. (2 marks)
- Suppose you consider buying a share of stock at 40 Rs. The stock is expected to pay 3Rs dividend next year and you expect to sell it for 41Rs. The Stock risk has been evaluated at $\beta = -0.5$. Is the stock overpriced or underpriced? (4 marks)