College Name: $\qquad$

Student Name: $\qquad$ Father's Name: $\qquad$
Copy No: $\qquad$
KARACHI UNIVERSITY BUSINESS SCHOOL
UNIVERSITY OF KARACHI
FINAL EXAMINATION DECEMBER 2016; AFFILIATED COLLEGES
INTRODUCTION TO BUSINESS FINANCE; BA (H)-412 (PART B)
BBA - IV
Date: December 28, 2016
Max. Time: $\mathbf{2}$ Hrs
Max. Marks: $\mathbf{3 0}$

## INSTRUCTIONS:

1. Attempt any 4 questions. Do not write anything on the question paper.
2. Mobile phones or any other communicating device will not be allowed in the examination room. Students will have to remove the batteries of these devices before entering the examination hall.

Q1 a) Millat Technologies is always looking for ways to expand their business. A plan has been proposed that would entail issuing Rs300 million in notes payable to purchase new fixed assets (for this problem, ignore depreciation). If this plan were carried out, what would Millat's current ratio be immediately following the transaction?

Q1 b) Company A has sales of Rs1,000, assets of Rs500, a debt ratio of 30 percent, and an ROE of 15 percent. Company B has the same sales, assets, and net income as Company A, but its ROE is 30 percent. What is B 's debt ratio?

Q2 Given the following probability distribution, what are the expected return and the standard deviation of returns for Security J?

| State | $\mathrm{P}_{\mathrm{i}}$ | $\mathrm{K}_{\mathrm{J}}$ |
| :---: | :---: | :---: |
| 1 | 0.2 | $10 \%$ |
| 2 | 0.6 | 15 |
| 3 | 0.2 | 20 |

Q3 Three-year Treasury securities currently yield 6 percent, while 4-year Treasury securities currently yield 6.5 percent. Assume that the expectations theory holds. What does the market believe the rate will be on 1-year Treasury securities three years from now?

Q4 a) Saeed just deposited Rs10,000 in a bank account that has a 12 percent nominal interest rate, and the interest is compounded monthly. Saeed also plans to contribute another Rs 10,000 to the account one year ( 12 months) from now and another Rs20,000 to the account two years from now. How much will be in the account three years ( 36 months) from now?

Q4 b) You have just bought a security that pays Rs500 every six months. The security lasts for 10 years. Another security of equal risk also has a maturity of 10 years, and pays 10 percent compounded monthly (that is, the nominal rate is 10 percent). What should be the price of the security that you just purchased?

Q5 Haider.com is considering the following two projects:

|  | Project 1 | Project 2 |
| :--- | :---: | :---: |
| Year | Cash Flow | Cash Flow |
| 0 | -Rs100 | $?$ |
| 1 | 30 | 40 |
| 2 | 50 | 80 |
| 3 | 40 | 60 |
| 4 | 50 | 60 |

The two projects have the same payback. What is Project 2's internal rate of return (IRR)?
Q6 Javaid Air Inc. has average inventory of Rs1,000,000. Its estimated annual sales are Rs10 million and the firm estimates its receivables conversion period to be twice as long as its inventory conversion period. The firm pays its trade credit on time; its terms are net 30 days. The firm wants to decrease its cash conversion cycle by 10 days. It believes that it can reduce its average inventory to Rs863,000. Assume a 365 -day year and that sales will not change. By how much must the firm also reduce its accounts receivable to meet its goal of a 10 -day reduction in its cash conversion cycle?

Q7 Tariq Services' CFO is interested in estimating the company's WACC and has collected the following information:

- The company has bonds outstanding that mature in 26 years with an annual coupon of 7.5 percent. The bonds have a face value of Rs1,000 and sell in the market today for Rs920.
- The risk-free rate is 6 percent.
- The market risk premium is 5 percent.
- The stock's beta is 1.2 .
- The company's tax rate is 40 percent.
- The company's target capital structure consists of 70 percent equity and 30 percent debt.
- The company uses the CAPM to estimate the cost of equity and does not include flotation costs as part of its cost of capital.

What is Tariq's WACC?

END OF SUBJECTIVE PAPER

