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Student Name: $\qquad$ Seat No: $\qquad$

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# KARACHI UNIVERSITY BUSINESS SCHOOL UNIVERSITY OF KARACHI FINAL EXAMINATION DECEMBER 2016; AFFILIATED COLLEGES FINANCIAL MANAGEMENT: BA (M) - 622 MBA - IV 

Date: January 6, 2017

## Max Time: 2 Hrs <br> Max Marks: 40

## INSTRUCTIONS:

1. Attempt any 4 Questions. Do not write anything on the question paper.
2. Mobile Phone(s) 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 The CFO of Brady Boots has estimated the rates of return to Brady's stock, depending on the state of the economy. He has also compiled analysts' expectations for the economy.

| Economy | Probability | Return |
| :---: | :---: | :---: |
| Recession | 0.1 | -23\% |
| Below average | 0.1 | -8 |
| Average | 0.4 | 6 |
| Above average | 0.2 | 17 |
| Boom | 0.2 | 24 |

Given this data, what is the company's coefficient of variation? (Use the population standard deviation, not the sample standard deviation when calculating the coefficient of variation.)

Q2 Assume that McDonald's and Burger King have similar $\$ 1,000$ par value bond issues outstanding. The bonds are equally risky. The Burger King bond has an annual coupon rate of 8 percent and matures 20 years from today. The McDonald's bond has a coupon rate of 8 percent, with interest paid semiannually, and it also matures in 20 years. If the nominal required rate of return, $\mathrm{k}_{\mathrm{d}}$, is 12 percent, semiannual basis, for both bonds, what is the difference in current market prices of the two bonds?

Q3 A stock, which currently does not pay a dividend, is expected to pay its first dividend of $\$ 1.00$ per share in five years ( $D_{5}=\$ 1.00$ ). After the dividend is established, it is expected to grow at an annual rate of 25 percent per year for the following three years ( $\mathrm{D}_{8}=\$ 1.953125$ ) and then grow at a constant rate of 5 percent per year thereafter. Assume that the risk-free rate is 5.5 percent, the market risk premium is 4 percent, and that the stock's beta is 1.2. What is the expected price of the stock today?

Q4 Vital Construction's CFO wants to estimate the company's WACC. She has collected the following information:

- The company currently has 20 -year bonds outstanding. The bonds have an 8.5 percent annual coupon, a face value of $\$ 1,000$, and they currently sell for $\$ 945$.
- The company's stock has a beta $=1.20$.
- The market risk premium, $k_{n}-k_{R F}$, equals 5 percent.
- The risk-free rate is 6 percent.
- The company has outstanding preferred stock that pays a $\$ 2.00$ annual dividend. The preferred stock sells for $\$ 25$ a share.
- The company's tax rate is 40 percent.
- The company's capital structure consists of 40 percent long-term debt, 40 percent common stock, and 20 percent preferred stock.

Q5 Hamid.com is considering the following two projects:

| Project 1 <br> Cash Flow | Project 2 <br> Cash Flow |
| :---: | :---: |
| $-\$ 100$ |  |
| 30 | $?$ |
| 50 | 80 |
| 40 | 60 |
| 50 | 60 |

The two projects have the same payback. What is Project 2's NPV if discount rate is $4 \%$ ?

