Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015

COURSE NAME	:	INVESTMENT ANALYSIS
COURSE CODE	:	BWA30503
PROGRAMME	:	3 BWA
EXAMINATION DATE	:	JUNE 2015 / JULY 2015
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

Q1 (a) JJ Industries will pay a regular dividend of RM4.80 per share for each of the next four years. At the end of the four years, the company will also pay out a RM40 per share liquidating dividend, and the company will cease operations. If the discount rate is 12 percent, calculate the current value of the company's stock.

(8 marks)

(b) Could I Industries just paid a dividend of RM0.90 per share. The dividends are expected to grow at a 25 percent rate for the next eight years and then level off to a 7 percent growth rate indefinitely. If the required return is 12 percent, calculate the value of the stock today.

(12 marks)

(c) The current price of Parador Industries stock is RM68 per share. Current earnings per share are RM3.80, the earnings growth rate is 7 percent, and Parador does not pay a dividend. The expected return on Parador stock is 13 percent. Calculate the price-earning (P/E) ratio for the Parador industries stock.

(5 marks)

Q2 (a) A Treasury STRIPS matures in 8.5 years and has a yield to maturity of 6.5 percent. If the face value is RM100,000, calculate the price of the STRIPS and write it as the quoted price.

(5 marks)

(b) A Treasury bill with 41 days to maturity is quoted at 99.515 and has a face value of RM100. Calculate the bank discount yield, the bond equivalent yield, and the effective annual return.

(12 marks)

(c) Aloha Inc. has 8 percent coupon bonds on the market that have 14 years left to maturity. The face value is RM1,000. If the yield to mature on these bonds is 9.1 percent, calculate the current bond price.

(8 marks)

Q3 (a) The Emerging Growth and Equity Fund is a "low-load" fund. The current offer price quotation for this mutual fund is RM27.52, and the front-end load is 1.5 percent. Obtain the net asset value (NAV) and find the current market value of assets owned by the fund if there are 15.6 million shares outstanding.

(10 marks)

(b) A sector fund specializing in commercial bank stocks had average daily assets of RM3.4 billion during the year. This fund sold RM1.25 billion worth of stock during the year, and its turnover ratio was 0.42. Determine the number of stocks this fund purchase during the year.

(4 marks)

(c) You purchased 2,000 shares in the New Pacific Growth Fund on January 2, 2008, at an offering price of RM53.82 per share. The front-end load for this fund is 5 percent, and the back-end load for redemptions within one year is 2 percent. The underlying assets in this mutual fund appreciate (including reinvested dividends) by 12 percent during 2008, and you sell back your shares at the end of the year. If the operating expense ratio for the New Pacific Growth Fund is 1.95 percent, calculate your total return from this investment.

(11 marks)

Q4 (a) Consider the following information as shown in **Table Q4 (a)**:

Table Q4 (a): State of the Economy and Stock Returns

State of Economy	Probability of State of Economy	Rate of Return If State Occurs		
		Stock *A*	Stock *B*	Stock *C*
Boom	0.20	0.18	0.48	0.33
Good	0.40	0.11	0.18	0.15
Poor	0.30	0.05	–0.09	–0.05
Bust	0.10	–0.03	–0.32	–0.09

Your portfolio is invested 25 percent each in *A* and *C*, and 50 percent in *B*. Calculate the expected return, variance and standard deviation of this portfolio.

(10 marks)

(b) You are given the following information concerning three portfolios, the market portfolio, and the risk-free asset in **Table Q4 (b)**.

Table Q4 (b): Investment Performance Data

Portfolio	R_p	σ_p	β_p
X	14%	29%	1.25
Y	13	24	1.10
Z	9	14	0.75
Market	11	19	1.00
Risk-free	5	0	0

Calculate the Sharpe ratio, Treynor ratio, and Jensen's alpha for each portfolio.

(12 marks)

(c) A stock has an annual return of 13 percent and a standard deviation of 28 percent. Calculate the smallest expected loss over the next year with a probability of 1 percent. Use $Z_{0.01} = 2.326$.

(3 marks)

- END OF QUESTION -

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FORMULAS

Dividend discount model: $P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \cdots + \frac{D_T}{(1+k)^T}$

Constant perpetual growth model: $P_0 = \frac{D_0(1+g)}{k-g}$, $g < k$

Two-stage dividend growth model:

$$P_0 = \frac{D_0(1+g_1)}{k-g_1}\left[1-\left(\frac{1+g_1}{1+k}\right)^T\right] + \left(\frac{1+g_1}{1+k}\right)^T\left[\frac{D_0(1+g_2)}{k-g_2}\right]$$

Price-earning ration = current stock price / annual earnings per share

Future value = Present value $\times (1 + r)^N$

$$\text{Current price} = \text{Face value} \times \left(1 - \frac{\text{Days to maturity}}{360} \times \text{Discount yield}\right)$$

$$\text{Bond equivalent yield} = \frac{365 \times \text{Discount yield}}{360 - \text{Days to maturity} \times \text{Discount yield}}$$

$$\text{Effective annual rate} = \left(1 + \frac{APR}{m}\right)^m$$

$$\text{STRIPS price} = \frac{\text{Face value}}{(1+YTM/2)^{2M}}$$

$$\text{Bond price} = \frac{C}{YTM}\left[1 - \frac{1}{(1+YTM/2)^{2M}}\right] + \frac{FV}{(1+YTM/2)^{2M}}$$

$$\text{Front-end load} = \frac{\text{Offering price} - \text{NAV}}{\text{Offering price}}$$