UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2021/2022

COURSE NAME	:	INVESTMENT ANALYSIS
COURSE CODE	:	BWA 30503
PROGRAMME CODE	:	BWA
EXAMINATION DATE	:	JANUARY / FEBRUARY 2022
DURATION	:	3 HOURS
INSTRUCTION	:	1. ANSWER **ALL** QUESTIONS. 2. THIS FINAL EXAMINATION IS AN **ONLINE** ASSESSMENT AND CONDUCTED **VIA OPEN BOOK**.

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

TERBUKA

Q1   You are given **Table Q1(a)** with information regarding prices for a sample of stocks.

Table Q1(a)

Stock	31 December 2019		31 December 2020	
	Price	Shares Outstanding	Price	Shares Outstanding
A	20	100,000,000	32	100,000,000
B	80	2,000,000	45	4,000,000[a]
C	40	25,000,000	42	25,000,000

[a]Stock split two-for-one during the year

(a)   Compute the beginning and ending value for the following types of index

    (i)   price-weighted index,

                                              (5 marks)

    (ii)   value-weighted index.

                                              (5 marks)

(b)   Compute the percentage change in the value of each index in **Q1(a)(i)** and **Q1(a)(ii)** during the year.

                                              (5 marks)

(c)   Explain the difference in results in **Q1(b)** between the two indexes.

                                              (5 marks)

Q2   (a)   Tenaga Nasional Berhad just paid a dividend of RM1.85 per share. The dividends are expected to grow at a 12 percent rate for the next five years and then level off to a 5 percent growth rate indefinitely.

    (i)   If the required return is 10 percent, what is the value of the stock today? **(Do not round intermediate calculations. Round your answer to 2 decimal places.)**

                                              (6 marks)

    (ii)   What if the required return is 15 percent? **(Do not round intermediate calculations. Round your answer to 2 decimal places.)**

                                              (6 marks)

(b)   Financial markets are one of the most extensively documented human endeavors. Large amounts of financial market data are collected and reported every day and analyzed to test market efficiency. However, market effieciency is still difficult to test.

    (i)   Outline the four basic reasons market efficiency is difficult to test.

                                              (4 marks)

    (ii)   Explain the implications to investors if markets are efficient.

                                              (4 marks)

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Q3 (a) Bond Malakoff has a coupon of 6.2 percent. Bond Westports has a coupon of 10.2 percent. Both bonds have 20 years to maturity and have a YTM of 6.9 percent.

   (i) If interest rates suddenly rise by 1 percent, calculate the percentage price change of these bonds. **(A negative value should be indicated by a minus sign. Do not round intermediate calculations. Write your answers as a percent rounded to 2 decimal places.)**

(6 marks)

   (ii) If interest rates suddenly fall by 1 percent, calculate the percentage price change of these bonds. **(Do not round intermediate calculations. Write your answers as a percent rounded to 2 decimal places.)**

(5 marks)

   (b) You are given **Table Q3(b)** with information on 10 bonds.

Table Q3(b)

Bond	Coupon	Maturity	Close		Volume
			Price	Yield	(million)
A	4.240	07/02/2018	100.000	4.24	270.30
B	3.756	28/04/2011	99.710	3.88	266.38
C	3.644	25/08/2010	99.720	3.80	9.00
D	3.718	15/06/2012	99.073	3.99	409.30
E	3.461	31/07/2013	98.400	3.83	115.00
F	3.833	28/09/2011	100.180	3.77	555.00
G	3.814	15/02/2017	96.004	4.39	5.12
H	4.262	15/09/2016	99.250	4.38	10.18
I	3.502	31/05/2027	83.039	4.90	0.10
J	5.248	15/09/2028	103.870	4.94	20.15

   (i) List a bond from **Table Q3(b)** according to each the Par, Premium and Discount.

(3 marks)

   (ii) Assuming you are a fixed income fund manager at ISSI Fund Asset Management, determine the strategy to gain profit if you were to sell each of the bonds listed in **Q3(b)(i)**. You may just focus on the bond prices.

(6 marks)

Q4 (a) The Emerging Growth and Equity Fund is a "low-load" fund. The current offer price quotation for this mutual fund is RM15.95, and the front-end load is 2.0 percent.

   (i) Determine the Net Asset Value (NAV).

(2 marks)

   (ii) If there are 19.2 million shares outstanding, what is the current market value of assets owned by the fund? **(Do not round intermediate calculations. Round your answer to the nearest whole number.)**

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(4 marks)

(b)   You are going to invest in a stock mutual fund with a front-end load of 6 percent and an expense ratio of 1.75 percent. You also can invest in a money market mutual fund with a return of 3.30 percent and an expense ratio of 0.10 percent. If you plan to keep your investment for two years,

   (i)   calculate the annual return must the stock mutual fund earn to exceed an investment in the money market fund. **(Do not round intermediate calculations. Provide your answers as a percent rounded to 2 decimal places.),**

(7 marks)

   (ii)   calculate the annual return if the investment horizon is 10 years. **(Do not round intermediate calculations. Provide your answers as a percent rounded to 2 decimal places.)**

(7 marks)

Q5   (a)   **Table Q5(a)** gives the probability of state of economy and returns for Stock A, B and C during Boom-and-Bust state of economy.

Table Q5(a)

State of Economy	Probability of State of Economy	Returns		
		Stock A	Stock B	Stock C
Boom	0.40	15%	18%	20%
Bust	0.60	10%	0%	-10%

If you invested 35 percent in Stock A, 45 percent in Stock B and the balance in Stock C for a portfolio, compute the following:

   (i)   the expected return for the portfolio. **(Do not round intermediate calculations. Provide your answers as a percent rounded to two decimal places.)**

(7 marks)

   (ii)   the standard deviation for the portfolio **(Do not round intermediate calculations. Provide your answers as a percent rounded to two decimal places.)**

(4 marks)

(b)   The expected return and standard deviation of a portfolio that is 50 percent invested in Axiata Berhad and 50 percent invested in Digi Berhad are given in **Table Q5(b)**.

Table Q5(b)

State of Economy	Axiata Berhad	Digi Berhad
Expected Return	14%	10%
Standard deviation	42%	31%

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Determine the standard deviation if the correlation is

(i)   +1,

(3 marks)

(ii)   0,

(3 marks)

(iii)   −1.

(3 marks)

(Do not round intermediate calculations. Give your answers as a percent rounded to 2 decimal places.)

-END OF QUESTIONS-