Index Number………………………………Signature……………………………………Date..………….

CHRISTIAN SERVICE UNIVERSITY COLLEGE
KUMASI, GHANA
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND FINANCE
MSc in ACCOUNTING AND FINANCE
END OF SECOND SEMESTER EXAMINATIONS – 2019/20 ACADEMIC YEAR

MACF 510: THEORY OF INVESTMENT AND PORTFOLIO MANAGEMENT

TAKE HOME ASSIGNMENT

JUNE, 2020 **60 Marks**

GENERAL INSTRUCTION TO CANDIDATES:

- THIS PAPER CONSISTS OF TWO SECTIONS, **A,** AND **B**
- ANSWER **ONE** QUESTION FROM EACH **SECTION**.

Examiner: JOSEPH YENSU

SECTION A (Answer one question in this Section)

Question 1

John Ackaah, CFA, is a portfolio manager in the Trust Department of Absa Bank Limited. Ackaah has been asked to review the investment portfolios of Robert and Mary Smith, a retired couple and potential clients. Previously, the Smiths had been working with another financial advisor, SammyB Financial Consultants (SBFC). To assist John Ackaah, the Smiths have provided the following background information:

FAMILY
We live alone. Our only daughter and granddaughter are financially secure and independent.

HEALTH
We are both 65 years of age and in good health. Our medical costs are covered by insurance.

HOUSING
Our house is in need of major renovation. The work will be completed within the next six months at an estimated cost of GHC 200,000.

EXPENSES
Our annual after-tax living costs are expected to be GHC150,000 for this year and are rising with inflation (expected to be 3% annually).

INCOME
In addition to income from the Gift Fund and the Family Portfolio, we receive a fixed, annual pension payment of GHC65,000 (after taxes), which continues for both of our lifetimes.

FINANCIAL GOALS
Our primary objective is to maintain our financial security and support our current lifestyle. A second objective is to leave GHC1mln to our grandchild and GHC1 mln to our local college. We recently completed the GHC1 mln gift to the college by creating a "Gift Fund". Preserving the remaining assets for our granddaughter is important to us.

TAXES
Our investment income, including bond interest and stock dividends, is taxed at 30%. Our investment returns from price appreciation (capital gains) are taxed at 15%, at the time of sale. There are no other tax considerations.

GENERAL COMMENTS
We need someone like SBFC to develop a comprehensive plan for us to follow. We can follow such a plan once it is prepared for us. We invest only in companies with which we are familiar. We will

not sell a security for less than we paid for it. Given our need for income, we invest only in dividend-paying stocks.

INVESTMENTS

We benefit from two investment accounts:

1. The Gift Fund (GHC1mln) represents our gift to the college. During our lifetimes, we will receive fixed annual payments of GHC40,000 (tax free) from the Gift Fund. Except for the annual payments to us, the Gift Fund is managed solely for the benefit of the college and we may not make any other withdrawals of either income or principal. Upon our deaths, all assets remaining in the Gift Fund will be transferred into the college's endowment.

2. The Family Portfolio (GHC1.2mln) represents the remainder of our lifetime savings. The portfolio is invested entirely in very safe securities, consistent with the IPS prepared for us by SBFC, as shown below.

SBFC IPS for Smith Family Portfolio

The Smith Family Portfolio's primary focus is the production of current income, with long-term capital appreciation as a secondary consideration. The need for a dependable income stream precludes investment vehicles with even a modest likelihood of losses. Liquidity needs reinforce the need to emphasize minimum-risk investment. Extensive use of short-term investment-grade investments is entirely justified by the expectation that a low-inflation environment will exist indefinitely into the future. For these reasons, investments will emphasize Ghana Treasury bills and notes, intermediate-term investment-grade corporate debt, and select 'blue chip' stocks, whose dividend distributions are assured and whose price fluctuations are minimal.

Absa Bank Limited
Model Portfolios

			Portfolios			
Asset Class	**Total return**	**Yield**	**A**	**B**		**D**
GH. stocks (large)	13.0%	3.0%	0%	35%	45%	0%
GH. stocks (small)	15.0	1.0	0	5	15	0
Non-GH. stocks	14.0	1.5	0	10	15	10
GH. corporate bonds (AA)	6.5	6.5	80	20	0	30
GH Treasury notes	6.0	6.0	0	10	5	20
Non-GH. gov bonds	6.5	6.5	0	5	5	0
Municipal bonds (AA)*	4.0	4.0	0	10	0	10
Venture capital	20.0	0.0	0	0	10	25

GH Treasury Bills	4.0	4.0	20	5	5	5
Total			100%	100%	100%	100%
After-tax expected return			4.2%	7.5%	13.0%	6.4%
Sharpe Ratio			0.35	0.5	0.45	0.45
After-tax yield			4.2%	2.9%	1.9%	3.3%

Expected Inflation: 3.0%

REQUIRED:

A) Prepare and justify an alternative IPS for Smiths' Family Portfolio. Do not provide a specific asset allocation in your response to this question **(8marks)**

B) Describe how your IPS addresses three specific deficiencies in the SFC IPS **(8marks)**

C) Recommend a portfolio from Table 1 for the Family Portfolio. Justify your recommendation with specific references to:

1) Three portfolio characteristics in Table 1 other than expected return or yield. No calculations are required. **(2marks)**

2) The Smiths' return objectives. Show your calculations. **(2marks)**

The Smiths now raise a new concern: "How can we judge whether our IPS is appropriate for us and whether it will continue to be appropriate in the future?" Several questions about the appropriateness of an investment policy include:

1) Is the policy written cleary and explicity? **(3marks)**

2) Can the client sustain his/her commitment to the policy? **(2marks)**

3) Can the manager maintain fidelity to the policy? **(5marks)**

D) Respond to the Smiths' question as follows:

1) Describe how each of the three policy questions is or is not relevant to the Smiths. **(5marks)**

2) Describe why the SBFC investment policy is or is not appropriate in light of each of the three policy questions. **(3marks)**

3) Recommend to the Smiths who should have the responsibility for their investment policy and for changes in that policy. **(2marks)**

Total **<u>40marks</u>**

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Question 2

The evaluation of portfolio or fund performance is often made on the basis of returns. Since maximising the rate of return is seldom the sole objective of a portfolio manager, the evaluation of performance should address itself to more than one criterion of success.

Mutual fund return is the most obvious criterion of success. Based on expectation of higher investment returns, quite a number of Ghanaians have been investing in Ponzi schemes resulting in the loss of their investment. This call for a serious awareness of such scrupulous investments. **There is the need for investors to try other alternative investment portfolios such as mutual funds with good returns.**

Required:

Based on the preamble above select any three mutual funds investment in Ghana and prepare a comparative evaluation performance analysis report for the period 2014 to 2019, justifying or otherwise, the one preferable to be added to investment portfolio.

Essential requirements:

(a) Typically, the report will have an executive summary, an introduction, the main body of the work and a conclusion. Include a word count at the end of your essay **(40marks)**

SECTION B (Answer one question in this Section)

Question 3

a) Ghana in recent times has witnessed many personal investors investing in some financial institutions providing very attractive interest on deposit with such institutions. Some of these institutions have collapsed resulting in economic hardship to these investors. As investment consultant discuss four benefits of mutual funds as an alternatives investment for personal financial planning to Ghanaians**.**

4 marks

b) The assessment of personal financial needs, either by a financial adviser or someone evaluating their own needs can be based on "CORE" principles. Critically explain these principles.

4 marks

c) The interest rate on a risk-free bank deposit is 5% p.a. The return on the GSE All-Share Index portfolio has been 10% p.a. with an annual standard deviation of 8%. Portfolio A has had a beta of 0.5 and annual standard deviation of 5% and has provided a return of 8% p.a. Portfolio B has had a beta of 1.5 and annual standard deviation of returns of 15% and has provided a return of 12% p.a.

Required:

Evaluate the performances of portfolios A and B relative to each other and relative to the GSE All-Share Index under

i. Sharpe measure **4 marks**

ii. Treynor measure **4 marks**

iii. Capital market line measure **4 marks**

Total **20 marks**

Question 4

(a) Identify and explain the significant risks that a multinational company may face where investment is being considered in an international context. **(10marks)**

(b) Identify and discuss the typical warning signs that a country-risk analysis should not overlook where international investment is being considered. **(10marks)**

Total **20marks**