Student name:\_\_\_\_\_\_\_\_\_\_

**MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.  
1)** A portfolio manager who adds commodities to a portfolio of traditional investments is *most likely* seeking to:

1) \_\_\_\_\_\_

A) both increase expected returns and decrease portfolio variance.   
 B) decrease portfolio variance only.  
 C) increase expected returns only.

**2)** A Hong Kong hedge fund was valued at HK$400 million at the end of last year. At year's end the value before fees was HK$480 million. The fund charges 2 and 20. Management fees are calculated on end- of-year values. Incentive fees are independent of management fees and calculated using no hurdle rate. The previous year the fund’s net return was 2.5%. The annualized return for the last two years is *closest to*:

2) \_\_\_\_\_\_

A) 8.1%.   
 B) 13.6%.  
 C) 7.9%.

**3)** A Canadian hedge fund has a value of C$100 million at the beginning of the year. The fund charges a 2% management fee based on assets under management at the beginning of the year and a 20% incentive fee with a 10% hard hurdle rate. Incentive fees are calculated net of management fees. The value at the end of the year before fees is C$112 million. The net return to investors is *closest to*:

3) \_\_\_\_\_\_

A) 10%.   
 B) 9%.  
 C) 8%.

**4)** For a given set of underlying real estate properties, the type of real estate index that is *most likely* to have the lowest standard deviation is a(n):

4) \_\_\_\_\_\_

A) REIT trading price index.   
 B) appraisal index.  
 C) repeat sales index.

**5)** An example of a relative value hedge fund strategy is:

5) \_\_\_\_\_\_

A) convertible arbitrage.   
 B) merger arbitrage.  
 C) market neutral.

**6)** A hedge fund that charges an incentive fee on all profits, but only if the fund's rate of return exceeds a stated benchmark, is said to have a:

6) \_\_\_\_\_\_

A) hard hurdle rate.   
 B) high water mark.  
 C) soft hurdle rate.

**7)** A hedge fund has a 2-and-20 fee structure, based on beginning-of-period assets, with a soft hurdle rate of 5%. Incentive fees are calculated before management fees. An endowment invests $60.0 million in the hedge fund. The value of the endowment's investment, before fees, decreases to $56.2 million after one year and increases to $58.0 million the next year. In the second year the endowment will be charged management and incentive fees *closest to*:

7) \_\_\_\_\_\_

A) $1.10 million.   
 B) $1.70 million.  
 C) $1.15 million.

**8)** Relatively infrequent valuations of private equity portfolio companies *most likely* cause:

8) \_\_\_\_\_\_

A) correlations of fund returns with equity returns to be biased downward.   
 B) standard deviations of fund returns to be biased upward.  
 C) average fund returns to be biased upward.

**9)** Adjusted funds from operations (AFFO) is *best* described as an estimate of a real estate investment trust's:

9) \_\_\_\_\_\_

A) free cash flow.   
 B) net operating income.  
 C) operating cash flow.

**10)** To exit an investment in a portfolio company through a trade sale, a private equity firm sells:

10) \_\_\_\_\_\_

A) the portfolio company to one of the portfolio company’s competitors.   
 B) shares of a portfolio company to the public.  
 C) the portfolio company to another private equity firm.

**11)** If a commodity futures market is in backwardation:

11) \_\_\_\_\_\_

A) the futures price is of the commodity is higher than the spot price.   
 B) a long futures position will have a negative roll yield.  
 C) the commodity has a high convenience yield.

**Answer Key**Test name: Alternative Investments

1) B

Unlike most alternative investments, expected returns on commodities are typically less than expected returns on traditional investments. However, because their returns typically have a low correlation with returns on traditional investments, adding commodities to a portfolio of traditional investments can decrease portfolio variance.

2) C

Management fee is HK$480 million × 0.02 = HK$9.6 million.   
   
 Incentive fee is (HK$480 million − HK$400 million) × 0.20 = HK$16.0 million. Total fee is HK$9.6 million + HK$16.0 million = HK$25.6 million.   
   
 Net of fee: HK$480.0 − HK$25.6 = HK$454.4 million Net return: (HK$454.4 / HK$400.00) − 1 = 13.6%   
   
 Two year annualized return is (1.136 × 1.025)1/2 − 1 = 7.9%   
   
 (Study Session 17, Module 50.2, LOS 50.d)

3) A

Management Fee: C$100.0 × 2.0% = C$2.0 million Gross value at end of year (given) = C$112.0 million  
   
 Incentive fee = [(C$112.0 − C$100.0 − C$2.0 − (C$100.0 × 10.0%)] × 20% = C$0  
   
 Total fee = C$2.0 million  
   
 Net of fee: C$112.0 − C$2.0 = C$110.0 million Net return = (C$110.0 / C$100.0) − 1 =10.0%  
 (Study Session 17, Module 50.2, LOS 50.d)

4) B

Appraisal index returns are based on estimates of property values. Because estimating values tends to introduce smoothing into returns data, appraisal index returns are likely to have lower standard deviations than index returns based on repeat sales or trading prices of REIT shares.  
 (Study Session 17, Module 50.1, LOS 50.e)

5) A

Relative value strategies include convertible arbitrage fixed income, asset-backed fixed income, general fixed income, volatility, and multi-strategy. Market neutral is an equity hedge strategy. Merger arbitrage is an event driven strategy.

6) C

With a soft hurdle rate, a hedge fund charges an incentive fee on all profits, but only if the fund's rate of return exceeds a stated benchmark. With a hard hurdle rate, a hedge fund charges an incentive fee only on the portion of returns that exceed a stated benchmark. With a high water mark, a fund's value must exceed its highest previous value before the fund may charge an incentive fee.

7) B

Year 1: Management fee = $60.0 million × 2% = $1.2 million. No incentive fee is charged because the fund decreased in value. Value after fees = $56.2 million − $1.2 million = $55.0 million.   
   
 Year 2: Management fee = $55.0 million × 2% = $1.1 million.   
   
 Year 2 return = $58.0 million / $55.0 million − 1 = 5.45% which is greater than the hurdle rate. With a soft hurdle rate and no high water mark provision, the entire gain is eligible for incentive fees: ($58.0 million − $55.0 million) × 20% = $0.6 million.   
   
 Total fees in Year 2 = $1.1 million + $0.6 million = $1.7 million.

8) A

Infrequent valuation results in downward bias in both standard deviations and correlations.

9) A

AFFO equals funds from operations minus recurring capital expenditures and is analogous to free cash flow.

10) A

A trade sale involves selling a portfolio company to a competitor or another strategic buyer. An IPO involves selling all or some shares of a portfolio company to the public. A secondary sale involves selling a portfolio company to another private equity firm or a group of investors.

11) C

Backwardation refers to a situation where the futures price is less than the spot price for a commodity. Because commodities have no monetary yield, only a convenience yield greater than the opportunity (interest) cost and storage costs of holding the commodity can lead to backwardation. When a futures market is in backwardation, the roll yield is positive because the futures price moves towards the spot price over the life of the contract.

1) 将商品加入传统投资组合的基金经理最有可能试图：

A) 同时提高预期回报和降低投资组合方差

B) 仅降低投资组合方差

C) 仅提高预期回报

2) 一家香港对冲基金去年末的估值为4亿港元。年末扣除费用前的估值为4.8亿港元。该基金收取2%的管理费和20%的激励费。管理费基于年末资产价值计算。激励费独立于管理费，且不使用障碍率。前一年该基金的净回报率为2.5%。过去两年的年化回报率最接近：

A) 8.1%

B) 13.6%

C) 7.9%

3) 一家加拿大对冲基金年初的估值为1亿加元。该基金收取2%的管理费，基于年初资产管理规模，以及20%的激励费，带有10%的硬障碍率。激励费在扣除管理费后计算。年末扣除费用前的估值为1.12亿加元。投资者的净回报率最接近：

A) 10%

B) 9%

C) 8%

4) 对于一组特定的房地产物业，最有可能具有最低标准差的房地产指数类型是：

A) 房地产投资信托基金（REIT）交易价格指数

B) 评估指数

C) 重复销售指数

5) 相对价值对冲基金策略的一个例子是：

A) 可转换套利

B) 合并套利

C) 市场中性

6) 一家对冲基金对所有利润收取激励费，但前提是基金的回报率超过特定基准，这种情况被称为：

A) 硬障碍率

B) 高水位线

C) 软障碍率

7) 一家对冲基金采用2%管理费和20%激励费的结构，基于期初资产，带有5%的软障碍率。激励费在管理费之前计算。一家基金会投资6000万美元于该对冲基金。第一年，基金会投资扣除费用前的价值降至5620万美元，第二年增至5800万美元。第二年基金会需支付的管理费和激励费最接近：

A) 110万美元

B) 170万美元

C) 115万美元

8) 私募股权投资组合公司相对不频繁的估值最有可能导致：

A) 基金回报与股票回报的相关性向下偏差

B) 基金回报的标准差向上偏差

C) 基金平均回报向上偏差

9) 调整后的运营资金（AFFO）最好被描述为房地产投资信托基金的：

A) 自由现金流估计

B) 净营业收入

C) 运营现金流

10) 要通过贸易出售退出对一家投资组合公司的投资，私募股权公司会：

A) 将投资组合公司出售给该公司的竞争对手之一

B) 将投资组合公司的股份出售给公众

C) 将投资组合公司出售给另一家私募股权公司

11) 如果商品期货市场处于现货溢价（backwardation）：

A) 商品的期货价格高于现货价格

B) 多头期货头寸将具有负的滚动收