Hong Kong University of Science and Technology
FINA1303 Introduction to Financial Markets
Quiz 1

There are 20 multiple choice questions in this quiz. Please circle the best answer for each question.

Question 1

Which of the following items is consistent with the cash flow concept in finance?

I. The initial investment of a long-term asset that a company pays for its purchase.
II. The book value of a long-term asset that a company records in its financial statements.
III. The proceeds from the sale of a long-term asset that a company receives.

A. III only
B. I and II only
C. I and III only
D. I, II and III

Explanation

I is a cash outflow and III is a cash inflow. The book value of a long-term asset is an accounting concept, which may not be consistent with the cash flow concept in finance. Hence, C is the best answer.

Question 2

John has just won a cash prize in a talent competition and the relevant organization gives him several options of how to receive the prize. Given that the prevailing interest rate is 5% per annum and it is compounded on an annual basis, which of the following options will give John the highest present value?

A. To receive $100,000 right away.
B. To receive $104,000 in a year's time.
C. To receive $52,500 in each of the coming two years.
D. To receive $110,000 in two year's time.

Explanation

PV of option A = $100,000

PV of option B = $104,000/(1+5%) = $99,047.62

PV of option C = \$52,500/(1+5%) + \$52,500/(1+5%)^2 = \$97,619.05

PV of option D = \$110,000/(1+5%)^2 = \$99,773.24

Option A gives the highest present value and hence A is the best answer.

Question 3

Mary borrows a one-year loan of \$50,000 that she has to pay the principal plus interest in year 1. The annual flat rate is quoted as 12%, but actually it is compounded on a monthly basis. What will be the interest payment that Mary has to make in a year's time?

A. \$6,000
B. \$6,275.44
C. \$6,341.25
D. \$6,373.73

Explanation

Principal plus interest in a year's time = \$50,000*(1+12%/12)^{12} = \$56,341.25

Interest payment = \$56,341.25 - \$50,000 = \$6,341.25

C is the best answer.

Question 4

David has \$50,000 spare cash and he wants to invest in a financial instrument for one year. Given that he prefers more wealth to less and he is risk averse, which of the following financial instruments is his most preferable choice?

A. Financial instrument A with an expected return of 12% and a volatility of returns of 22%.
B. Financial instrument B with an expected return of 15% and a volatility of returns of 22%.
C. Financial instrument C with an expected return of 12% and a volatility of returns of 25%.
D. Financial instrument D with an expected return of 15% and a volatility of returns of 25%.

Explanation

B is more preferred to A because they have the same risk and B offers a higher expected return.

D is more preferred to C because they have the same risk and D offers a higher expected return.

B is more preferred to D because they have the same expected return and B involves a lower risk level.
The best answer is B.

Question 5
A financial instrument has a current price of $1,000. It is expected to generate an annual interim income of $75 and to sell at $1,050 in a year's time. What is the expected rate of return on the financial instrument?

A. 7.14%
B. 7.50%
C. 11.90%
D. 12.50%

Explanation
expected rate of return (total return) = ($1,050 - $1,000 + $75)/$1,000 = 12.50%
The best answer is D.

Question 6
The observed nominal rate of return on a financial instrument is 8% and the expected inflation rate is 3%. The real rate of return on the financial instrument is approximately equal to:

A. 3%
B. 5%
C. 8%
D. 11%

Explanation
real rate of return ≈ 8% - 3% ≈ 5%
The best answer is B.

Question 7
In modern financial theory, the risk-free rate can be measured through:

A. the yield on a government bond.
B. the rate of return on a stock market index.
C. the interest rate on an interbank loan.

D. the inflation rate.

Explanation

Government bonds are assumed to be credit risk-free and hence its yield can be considered as the risk-free rate. The best answer is A.

Question 8

Which of the following is a systematic risk factor that affects the financial market as a whole?

I. The economic growth rate.
II. The inflation rate.
III. The quality of the management team of a company.
IV. The business nature of a company.

A. II only
B. I and II only
C. III and IV only
D. I, II, III and IV

Explanation

Both I and II are macroeconomic factors that affect all companies and securities, i.e. the financial market as a whole. Hence, they are systematic risk factors.
Both III and IV are firm-specific factors that affect a particular company and hence they are unsystematic factors.
The best answer is B.

Question 9

Fatima holds a portfolio consisting of five securities and she should be concerned about its __________.

A. beta
B. unsystematic risk
C. total risk
D. systematic risk

Explanation

A portfolio of five securities is likely to be non-diversified and hence is subject to both the systematic and unsystematic risks (though part of the unsystematic risk has been diversified away). In other words, she should be concerned with its total risk. The best answer is C.

Question 10

A financial instrument is expected to generate a cash flow of $100, $100 and $1,100 in years 1, 2 and 3 respectively. The nominal risk-free rate is 2% and the risk premium of the financial instrument is 3%. What is the fair value of the financial instrument based on the discounted cash flow model?

A. $1,136.16
B. $1,198.00
C. $1,230.71
D. $1,238.10

Explanation

risk-adjusted return = nominal risk-free rate + risk premium = 2% +3% = 5%

fair value = $\$100/(1+5\%) + \$100/(1+5\%)^2 + \$1{,}100/(1+5\%)^3 = \$1{,}136.16$

The best answer is A.

Question 11

Which of the following financial institutions is a financial intermediary under indirect finance?

I. A mutual fund.
II. A commercial bank.
III. A brokerage house.
IV. An insurance company.

A. II and III only
B. I, II and III only
C. I, II and IV only
D. I, II, III and IV

Explanation

A brokerage house facilitates the trading between the buyers and sellers in the financial market. Hence, it is not a financial intermediary. A mutual fund, a commercial bank or an insurance company pools the funds of surplus units and transfers them to the deficit units. They are financial intermediaries. The best answer is C.

Question 12

Borrowers are usually better informed about their credit standing than lenders. If lenders just charge an average interest rate on borrowers of different risk types, they may end up lending money mainly to high risk borrowers. This type of asymmetric information problem in the financial system is known as:

A. the moral hazard problem.
B. the risk sharing problem.
C. the transaction cost problem.
D. the adverse selection problem.

Explanation

This type of asymmetric information problem arises before a loan is made. It is known as the adverse selection problem. D is the best answer.

Question 13

Which of the following is a primary market activity in the financial system?

I. A company issues new shares to be bought by a selective group of investors.
II. Newly issued bonds are offered to the investors through a public offering.
III. The majority shareholder of a company sells his shares to the general public.

A. I only
B. I and II only
C. I and III only
D. II and III only

Explanation

A primary market is a market for trading newly issued securities. Hence, both I and II are primary market activities. III involves trading of already-issued securities and hence it is a secondary market activity. The best answer is B.

Question 14

Which of the following is an institutional investor?

I. An insurance company.
II. A high net worth investor.
III. A commercial bank.

IV. A pension fund.

A. I, II and III only
B. I, II and IV only
C. I, III and IV only
D. II, III and IV only

Explanation

An institutional investor is a financial institution which pools funds from individual investors or business organizations and invests them in the financial market. Hence, an insurance company, a commercial bank and a pension fund are all institutional investors. A high net worth investor is an individual investor who is rich. The best answer is C.

Question 15

Which of the following functions is performed by the secondary market in a financial system?

I. To provide a channel for a company to raise funds through the issue of new securities.
II. To provide a frame of reference to pricing new securities issued by a company.
III. To provide liquidity to the securities already issued by a company
IV. To provide a mechanism to contact institutional and high net worth investors through private placements of newly issued securities.

A. I and IV only
B. I and III only
C. II and III only
D. II, III and IV only

Explanation

I and IV are the functions of a primary market while II and III those of a secondary market. C is the best answer.

Question 16

Which of the following statements about a trading system of financial instruments is correct?

A. In an order-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the bid price provided by a market maker.
B. In an order-driven trading system, if an investor wants to buy a financial instrument, the

transaction price is the ask price provided by a market maker.

C. In a quote-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the bid price provided by a market maker.

D. In a quote-driven trading system, if an investor wants to buy a financial instrument, the transaction price is the ask price provided by a market maker.

Explanation

In an order-driven trading system, there are no market makers and hence both A and B are not correct. When an investor wants to buy a financial instrument, it means that the market maker has to sell it and the transaction price is the ask price. Hence C is incorrect. D is the best answer.

Question 17

If a trader inputs a sell limit order for a financial instrument, the specified limit price is usually __________ its current selling price and the objective of the order is to _________.

A. lower than; restrict the maximum loss to a certain level

B. lower than; liquidate his/her position as a downtrend is predicted when the specified price is hit

C. the same as; execute the trade at the prevailing market price

D. higher than; trade at a more favorable term than the prevailing market term

Explanation

Both A and B refer to a stop-loss order. C refers to a market order. D is the nature of a sell limit order. The best answer is D.

Question 18

Which of the following statements best describes the settlement process in the financial market?

A. It involves the negotiation of the contract terms and conditions between the buyer and the seller.

B. It involves the actual exchange of cash for securities between the buyer and the seller.

C. It involves the process of updating the trading records after a trade is concluded between the buyer and the seller.

D. It involves the input of instructions directed to the financial market where a trade can be arranged between the buyer and the seller.

Explanation

A refers to the trading process. C refers to the clearing process. D refers to the inputting of orders. B is the best answer.

Question 19

Which of the following regulators is responsible for monitoring the fund management sector in Hong Kong?

A. The Hong Kong Monetary Authority.
B. The Securities and Futures Commission.
C. The Mandatory Provident Fund Schemes Authority.
D. The Office of the Commissioner of Insurance.

Explanation

The Hong Kong Monetary Authority is responsible for monitoring the banking sector. The Mandatory Provident Fund Schemes Authority is responsible for monitoring the mandatory provident fund sector. The Office of the Commissioner of Insurance is responsible for monitoring the insurance sector. The Securities and Futures Commission is responsible for monitoring the securities and futures sector and the fund management sector. The best answer is B.

Question 20

Under the Banking Ordinance, which of the following financial institutions can accept deposits from the general public in Hong Kong?

I. Brokerage houses.
II. Licensed banks.
III. Mutual Funds.
IV. Restricted licence banks.

A. II and IV only
B. I, II and III only
C. I, II and IV only
D. I, II, III and IV only

Explanation

Under the Banking Ordinance, only licensed banks, restricted license banks and deposit-taking companies can accept deposits from the general public in Hong Kong. The best answer is A.

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