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道德（20 道题）

1. Which of the following is most likely part of the CFA Institute Standards of Professional Conduct, Standard I–Professionalism? Members and candidates:

A. must understand and comply with all applicable laws.

B. must not engage in practices that distort prices or artificially inflate trading volume with the intent to mislead market participants.

C. must deal fairly and objectively with all clients when providing investment analysis, making investment recommendations, taking investment action, or engaging in other professional activities.

Answer: A

解析：
A 选项为正确选项，会员及候选人知道及遵守适用法律来自职业准则第一大准则专业性的第一条细则：知晓并且遵守法律。
B 选项为错误选项，会员及候选人不能歪曲价格或人为操纵交易量来误导市场参与者属于职业准则中第二大准则的第二条细则：市场操纵。
C 选项为错误选项，会员及候选人在向客户提供投资分析、投资建议、做出投资行动、及其它时应该保持公平及客观属于职业准则中第三大原则的第二条细则：公平对待。

难度：中

2. Yuan, CFA, is chief investment officer of Golden Securities. Recently, Yuan found that their company's promotional materials for marketing activities had a mistake. The value of their management asset list on the material was higher than their current actual market value. Yuan realized the reason might be recent market volatility. Which of the following actions is most accurate to comply with the CFA Institute Code and Standard.

A. Do nothing, because the day material made, the value was correct.

B. Correct the asset value and add a footnote indicating the day that the value calculated.

C. Report the mistake to government regulators.

Answer: B

解析：
B 是正确答案。发现错误需要及时更正，根据I(A) Knowledge of the Law不作为会被视为参与。
A 错。因为题干的做法会对客户产生一个误导，让客户误以为他们公司管理的资产规模就有他们所宣传的那么大，但是实际上没有。
C 错。根据I(A) Knowledge of the Law协会并不要求我们出现问题就一定要向政府报告。

难度：易

3. Yuan, CFA, is a bond research analyst in XYZ securities. XYZ securities hold a large position in the bond of Carly Group. In last week, many securities company change the stock recommendation of Carly Group, since the disappointing financial report just released. It also led to the collapse of Carly bond prices. Yuan's supervisor asked Yuan to call their clients and convinced them to continue holding the bonds of Carly Group. However, Yuan had a different thought. He believed the Carly bond price was overvalued. Which of the following action is the most appropriate to comply with the CFA Institute Code of Ethics and Standards of Professional Conduct, Yuan should:

A. make these calls with prominent disclose.

B. follow his supervisor's request, because of the chain of command.

C. deny his supervisor's request.

Answer: C

解析：
C 是正确答案。根据 I(B) Independence and Objectivity，Yuan 不应该受到公司内部的压力去影响他的独立客观的判断，他认为债券价格是被高估了，所以他不应该去向他的客户去推销该债券。
A 错。因为 Yuan 不应该被他的主管威逼利诱去打推销电话，如果他打了就是说明他的独立客观性被影响了，即使披露也不行。
B 错。因为不能收到内部的压力影响分析师的独立客观性。

难度：易

4. To minimize the impact material nonpublic information inside the investment firm, which of the following actions are appropriate except:
A. Banning personal trading.
B. Building firewalls.
C. Cutting compliance department to increase efficiency.

Answer: C

解析：
C 是正确答案。裁撤合规部门并不能减小重大非公开信息在公司内部的流通。注意题目问的是“except”。
A 是错误的。因为禁止员工的个人交易可以有效减小重大非公开信息的影响。
B 是错误的。因为建立防火墙可以有效减小重大非公开信息的影响。

难度：中

5. Yuan, CFA, is a famous research analyst works on Golden Securities. Sam Group appreciates Yuan's research report quality and invites him to write an issuer-paid research report. According to the CFA Institute Code of Ethics and Standards of Professional Conduct, Yuan should:
A. accept this assignment with a flat fee and disclose this relationship in the report.
B. accept this assignment with a fee linked the Sam Group stock price and disclose the fee in the report.
C. reject this assignment because it will compromise his independence and objectivity.

Answer: A

解析：
A 是正确答案。根据 I(B) Independence and Objectivity 要求，分析师写 issuer-paid research 必须要披露和目标公司之间的雇佣关系，并且只能收取固定费用，不能和结果挂钩。
B 是错误答案。issuer-paid research 费用不能和结果挂钩。
C 是错误答案。协会并没有禁止你写issuer-paid research。

难度：易

6. Jack Bauer, CFA, works on Golden Finance as a portfolio manager. His father Linker Bauer is a senior manager of KPMG. During a family party, Linker mentioned that he was busy working on an audit of a car maker company recently. Linker also mentioned that the car maker company might encounter financial distress. Jack just listened and did not think too much. A few days later, Jack solicited a new client and found the client heavily holding the car maker company. Jack did some digging into the car maker company and found nothing about the

financial problem. Which of the following actions is the most appropriate to comply with the CFA Institute Standards of Professional Conduct?

A. Do more research then sell the stock.

B. Sell the stock directly because he has soundness reason to do that so.

C. Do nothing.

Answer: C

解析：
C 是正确答案。这个消息是关于财务危机的，是 Jack 的父亲说的，他父亲和目标公司有业务往来，可以认为这个消息是可靠的。因此这个消息就是典型的重大非公开信息。所以 Jack 是不能用的。
A 错。因为卖股票没有合理的理由去支持，而重大非公开信息又是不能用。
B 错。Jack 没有充足的理由。

难度：中

7. According to the Mosaic Theory, what kind of the following information can most likely be used in the investment recommendation by the practitioner?

A. Public information.

B. Non-material nonpublic information.

C. Both A and B.

Answer: C

解析：
C 选项是正确答案，根据II (A) Material Nonpublic Information 马赛克理论的定义，会员和考生可以根据公开信息以及非重大非公开的信息去得出结论，不违反准则。
A 选项错误，缺少非重大非公开信息。
B 选项错误，缺少重大的公开信息。

难度：易

8. Yuan, CFA, is a fund manager works on an independent investment institution. He manages a trust fund. This trust fund was established by a millionaire, and the beneficiary was his minor son Jack. The IPS stipulate that the fund is to provide Jack with living expenses and tuition fees, and continues until he is 40 years old, so the fund required to invest low-risk and stable income only. However, Jack found Yuan and asked him to invest in a private equity fund. Jack believes that this private equity fund can provide a very good return, although there is a three-year lockup period.

During the lockup period, there is zero yield and cannot redemption. Yuan accepted Jack's request and invested in this private equity fund. Did Yuan most likely violate the CFA Institute Code of Ethics and Standards of Professional Conduct?

A. Yes, because the decision against IPS.

B. No, because the beneficiary is Jack.

C. No, because the private equity has a good return.

Answer: A

解析：
A 是正确答案。该信托基金的客户是委托人，不是受益人，根据 Standard III(C)–Suitability，一切投资行为应该以和信托者事先签订好的 IPS 为准，而不是去听从受益人的要求。
B 是错误答案。受益人不是客户，一切以 IPS 为准。

C 是错误答案。即使私募股权基金的收益很好也不行，因为不符合 IPS 要求的低风险稳定收益的条件。

难度：中

9. Yuan, CFA, is a fund manager. When Yuan is soliciting new clients, he claims that his investment return has exceeded 50% in the past three years. Based on that fact, he can guarantee such return to his new client in next year. Which of the following statements is the most accurate to comply with the CFA Institute Code of Ethics and Standards of Professional Conduct?

A. Yuan can guarantee that return to his client based on his excellent investment history.

B. Yuan does not need to mention his role in the history of investment action.

C. Yuan failed to distinguish the fact and opinion, he can't use his historical investment return to imply the future performance.

Answer: C

解析：
C 是正确答案。Yuan 不能用过去的业绩去保证未来也可以获得同样的收益，这种做法违反了 I (C)-Misrepresentation 和 III (D)-Performance Presentation。
A 错。因为 Yuan 不能用过去的业绩保证未来的收益。
B 错。因为 Yuan 需要说明他在过去出色的投资业绩中所扮演的角色。

难度：中

10. Yuan, CFA, is a portfolio manager works for Golden Finance. Alex Muller is one of Yuan's clients. They have not been in contact for more than three years. Recently, Alex suddenly called Yuan and said that he made a lot of money and wanted to invest in some high-risk and high-yield investment products. Yuan immediately recommended and invested in some private equity funds. As usual, Yuan also prepared the list of these funds, the details of the proceeds, and sent them to Alex monthly. Did Yuan most likely violate the CFA Institute Code of Ethics and Standards of Professional Conduct?

A. Yes, he violated for investing private equity funds.

B. Yes, he violated for the details of proceeds.

C. No.

Answer: A

解析：
A 是正确答案。原题描述 Yuan 已经超过 3 年没有联系客户了，说明客户的资料没有进行定期的更新。而且没有详细评估客户目前的情况就直接给客户推荐购买私募股权基金，这直接违反了 Standard III(A)–Loyalty, Prudence, and Care和Standard III(C)–Suitability。
B 错。每月提供投资详情没有违反准则
C 错。Yuan 违反了准则。

难度：中

11. Which of the following is most correct regarding standard IV-Duties to Employers?

A. Members are not allowed to participate in independent practice.

B. Under no circumstance shall a member violate his loyalty to his employer.

C. When the employer engages in illegal activities, the actions taken by the employee to protect the integrity of the capital market are permitted.

Answer: C

解析：
C 选项正确。当且仅当雇主从事违法或者不道德的行为时，员工可出于保护客户利益或者市场利益的目的采取违背雇主利益的措施。

难度：中

12. Which of the following statements is in compliance with Standard IV(C) Responsibilities of Supervisors?
A. Members and candidates acting as supervisors cannot delegate supervisory responsibilities.
B. Members and candidates can delegate supervisors' responsibilities without implementing the education and training programs.
C. When delegating supervisors' responsibilities, members and candidates should instruct on the methods to prevent and detect the violation of Code and Standards.

Answer: C

C 选项正确，在委派监管者职责时，应确保被委托者知晓如何行使监管者职责。

难度：中

13. Yuan, CFA, was a junior research analyst at Golden Finance. He wrote a report that included predictions from an econometric model developed by his colleagues. He highlighted the source of this projection. The report also contained all relevant statistical data on the model and his comments on the accuracy of the model. For the Standard V (A)-Diligence and Reasonable Basis, Yuan had:
A. not violated the Standard V (A).
B. violated the Standard by including quantitative details in the report.
C. violated the Standard by not testing the model himself.

Answer: C

A 选项正确，Yuan 作为一个分析师，在写报告时，使用了同事所研发的经济模型，这个是不需要进行备注的。因为同事的研究报告, 模型等都归属于公司的资产，所以是可以直接使用的。同时，有关于对未来的预测，相关的统计数据和他自己的意见都在报告里做好了备注，所以他并没有违反道德准则。
B 选项将量化的一些信息披露在报告里并不会违反道德准则。
C 选项关于使用同事的模型，准则并没有规定 Yuan 要自己测试一次。

难度：中

14. Thomas Anderson, CFA, recently quit his job as an investment consultant and started his own business. Based on his memories, he recreated the investment model he made at his former employer. Anderson provided the model to some prospective clients as an example to prove his abilities. Did Anderson violate any CFA Institute Standards of Professional Conduct?
A. Yes, with regard to Standard V (C)-Record Retention.
B. Yes, with regard to Standard V (B)-Communication with Clients.
C. No.

Answer: A

选择 A 项。在几个选项中，Thomas 最可能违反 Standard V(C) Record Retention。因为记录都是雇主的财产，没有经过雇主同意的话，离职时不能带走。如果在新公司想要再创造模型，必须通过公开资源或新公司的资源进行再创造，而不是通过回忆的方式再创造。

难度：中

15. Yuan, CFA, is a portfolio manager, who has two clients. Both clients have the same amount of money in their accounts. Yuan thinks that a recession is coming, so he begins to increase the proportion of less risky assets in each account. In order to comply with Standard V (B), Communication with Clients and Prospective Clients, Yuan should:

A. ensure that he does the same investment strategy for both clients.

B. communicate with both clients about the change and inform them that the investment is based on his opinion.

C. do both of that.

Answer: B

B 选项正确，因为我们在帮助客户进行操作的时候，有重要的操作风格的改变等，是需要跟客户进行沟通。同时注意在沟通投资推荐或分析时，区分观点和事实。
C 选项错误，因为如果帮助每个客户做相同的投资操作，那么Yuan 是违反了道德准则的，我们在进行操作的时候，应该选择对每个客户最适合的方式。
综上所述，A 选项错误。

难度：易

16. Michael, CFA, works as an Editor-In-Chief, at the ANZ bank's marketing department. The Financial Times Magazine, which is published according to its business function, always recommends securities to the market. Once the magazine is published, it always guides those recommended stocks to a fairly good performance. According to the recommendation, Michael often trades stocks before the magazine is published. Meanwhile, ANZ bank's compliance department requires all portfolio managers or analysts to obtain prior approval for the transaction. Which of the following CFA Institute Standards of Professional Conduct does Michael most likely violate?

A. Independence and Objectivity.

B. Material Nonpublic Information.

C. Disclosure of Conflicts.

Answer: B

B 选项正确。Financial Times上刊登的关于所推荐股票的信息在该杂志出版前属于非公开信息，并且该杂志的出版会对股价带来重大影响，影响投资者的投资决策，来源可靠，因此属于重大信息。Michael事前交易这些推荐的股票即使以她的职位不要求她向公司合规部做事先交易批准，她也违反了Standard II(A)-重大非公开信息。

难度：难

17. Jenson Button, CFA, is a product development manager at a private equity fund. He is in charge of developing and promoting a new structured financial product, CBO （bond obligation), which includes many emerging-market corporate bonds. In the product-related catalog, Button discloses a list of selected underlying bonds. The catalog also mentions about one independent collateral agency, who has discretion over the selection of all corporate bonds. In fact, Button has discussed with the collateral agency manager many times and instructed him to select bonds for the CBO. Button is most likely to violate which of the following CFA Institute Standards of Professional Conduct?

A. Disclosure of Conflicts.

B. Suitability.

C. Diligence and Reasonable Basis.

Answer: A

A 选项正确。Button负责CBO产品的研发和推广，而当他同时又参与组成CBO的抵押标的债券的选择，这其中就可能会涉及相关方的潜在利益冲突，需要披露。

难度：难

18. According to the Global Investment Performance Standards (GIPS), which of the following statements is most likely accurate?

A. Compliance with GIPS is the best way to adhere to Standard I(C)-Misrepresentation and Standard III (D)-Performance Presentation.

B. Compliance with GIPS is the only way to adhere to Standard I(C)-Misrepresentation and Standard III (D)-Performance Presentation.

C. Compliance with GIPS is claimed by the regulatory agency.

Answer: A

选择 A 项。 GIPS 准则旨在帮助投资公司在业绩陈述时能更好的遵守I(C)-Misrepresentation 和 III (D)-Performance Presentation 两条细则。但是遵守GIPS 准则并不是强制的，任何投资公司都可以选择是否遵循 GIPS 准则。因此 B和 C 项错误。

难度：中

19. When local laws governing performance calculation presentation conflict with GIPS, firms that claim compliance with GIPS:

A. should follow the stricter standard between local laws and GIPS.

B. should calculate and present two groups of investment performance data separately complying with local laws and GIPS.

C. should comply with local laws and disclose the conflicts.

Answer: C

选择 C 项。在披露投资业绩的时候，如果当地法律法规的具体规定和 GIPS 准则发生冲突，那么宣称遵守 GIPS 准则的公司应该按照当地法律法规的规定进行业绩的计算和陈述，并且把 GIPS 准则和当地法律法规有冲突的地方进行披露。

难度：中

20. Which of the following entities can most likely claim its compliance with GIPS?

A. A local subsidiary corporation that provides investment management business.

B. A transnational investment consulting services company.

C. An independence investment research firm.

Answer: A

选择 A 项。宣称遵循 GIPS 准则的主体可以是集团、子公司甚至是某个部门，但该主体必须从事投资管理业务且能够独立做出决策。所以 A 选项符合。而 B 选项投资咨询服务公司，以及 C 选项投资研究机构均不符合。

难度：难

数量（14道题）

1. Angel has just received a compensation decide to use it for her tuition fee next year. So she invested it into a money market deposit account which pays her 3.5% interest rate. The tuition fee will be $3500 in one year and Angel has to determine the amount of money she should invest today. The interest rate which this account pays her can be interpreted as:

A. discount rate.

B. required rate of return.

C. opportunity cost.

Answer: A

A选项正确。考察利率的三种解释。根据题意，要计算未来的一笔钱等价于现在是多少，这里的利率就用作折现率
B 选项错误，required rate of return，对应的情况是使得投资者接受投资的最小回报率。
C 选项错误，opportunity cost 表示机会成本，是投资者放弃次优选择带来的成本

难度：易

2. The X project of Neptune manufacturing company has reached scale economies. X project can generate $200 million cash flow today, $200 million in 1 year and $300 million 2 years from today. How much would these be worth now using a 12% discount rate?

A. $700 million

B. $617.73 million

C. $551.54 million

Answer: B

B 选项正确。考察：不规则现金流的折现。需要将每笔现金流折现后求和，$200 + 200 / (1 + 12\%)^2 + 300 / (1 + 12\%)^3 = 617.73$
A 选项错误，选择直接将三笔现金流相加，没有考虑现金流的可加性原则。
C 选项错误，把现金流的时间点计算错误，正确的时间点为第一笔现金流发生在 0 时刻，第二笔发生在第一年年末，第三笔发生在第二年年末。

难度: 中

3. The price of a 45-day T-bill is $986. It will pay out $1,000 on maturity. The money market yield of the T-bill is closest to:

A. 11.20%

B. 11.36%

C. 12.12%

Answer: B

Discount = Face value − Price = 1000 - 986 = 14

$$MMY = \frac{Discount}{Price} \times \frac{360}{Days\ to\ maturity} = \frac{14}{986} \times \frac{360}{45} = 11.36\%$$, B 选项正确。

A 选项对应的是 Bank discount yield(BDY)，所以不正确。C 对应的是 Effective annual yield(EAY)，所以不正确。

难度：易

4. Suppose Golden Finance invests $1.37million in academic research at the beginning of year 1, and the discount rate is 8%. The estimated after-tax earnings in this project are listed as below:

End of year 1	0.5million
End of year 2	0.65million
End of year 3	0.93million

The net present value (NPV) of the project is closest to:

A. $0

B. -$0.39

C. $0.39

Answer: C

本题考察 NPV 的计算。已知现金流和折现率计算 NPV。可使用计算器：CFO = -1.37; CF1 = 0.5; CF2 =0.65; CF3 = 0.93; I = 8; CPT → NPV =0.39，即$0.39，选项 C 正确。注意输入值的符号，”-”表示现金流投入到项目，正值表示项目带来的现金流，如果相反则会得到-0.39，即-$0.39，对应错误选项 B。

A 选项属于混淆选项。

难度：中

5. The excess kurtosis of a leptokurtic distribution is:

A. positive.

B. negative.

C. zero.

Answer: A

本题考察超峰度的性质。高峰态分布的峰度大于 3，超峰度大于 0，是正数，所以 A 选项正确。

难度：易

6. The Coefficient of Variation of a portfolio is 2 and the rate of the return is 15%. Suppose the risk-free rate is 4.5%, what is the Sharpe ratio of the portfolio?

A. 1.4

B. 0.5

C. 0.35

Answer: C

首先根据变异系数(CV)计算出标准差，

$CV = \frac{s}{\bar{x}} = \frac{s}{\square 15} = 2 \quad s = \square 3$，得到标准差是 0.3。

代入计算 Sharpe ratio 的公式，Sharpe ratio=(0.15-0.045)/0.3=0.35，对应正确选项C。
如果误将 CV 公式的分子分母对调，最终计算得到是 1.4，得到错误选项 A。
计算 Sharpe ratio 需要用到无风险收益率，如果错误的不考虑，则会直接得到CV 的倒数，即 0.5，对应错误选项 B。

难度：难

7. Based on a senior analyst's research, there is a 45% chance that Company AXY will be acquired by Company BND next month. If being acquired, the Company AXY's stock price will go up by 35%. If the acquisition does not happen, its stock price will drop by 10%. What is the expected rate of return if one invests in Company AXY's stock?

A. 11.5%

B. 10.25%

C. 11.85%

Answer: B

本题考点：期望收益率的计算方法。期望收益率等于以概率为权重计算的加权平均回报率，即 E(R)= 0.45*0.35 + 0.55*(-0.1) = 10.25%。

难度：易

8. A Pharmaceutical Company claims to discover a new approach to diagnose an infant disease. According to their research, the probability of the disease being detected when a baby has a disease is 99.9%. The probability of the disease being detected when the baby has no disease is 0.6%. The historical data shows that the probability of an infant getting the disease is 0.4%. What is the probability that an infant has the disease when it is diagnosed with the disease?

A. 40%

B. 80%

C. 60%

Answer: A

本题考点：贝叶斯公式。若定义事件 A 为：婴儿有疾病。事件 B 为：被诊断有疾病。则：
$P(A) = 0.4\%$
$P(B|A) = 99.9\%$
$P(B|A^c) = 0.6\%$

贝叶斯公式写为：$P(A|B) = \frac{P(B|A)}{P(B} P(A)$；

用全概率法则计算 B 事件的无条件概率：$P(B)= P(B|A) *P(A)+ P(B|A^C) *P(A^C)=99.9\%*0.4\%+0.6\%*(1-0.4\%) = 0.3996\%+0.5976\%=0.9972\%$。代入公式：$P(A|B) =0.3996\%/0.9972\%=40.07\%$

难度：难

9. A fund manager is trying to construct an investment portfolio. During the security selection process, how many ways are there for him to select six stocks from a group of nine if the order does not matter?

A. 65

B. 102

C. 84

Answer: C

本题考点：辨析组合公式：$C_n^r=\frac{n!}{(n-r)!r!}$。

其中 n 为可被选择的总数，r 为要选择的数量。

代入数字：$C_9^6 = \frac{9!}{(\quad)} = 84$

9 9−ꭗ!ꭗ!

使用计算器计算：9 [2nd][+] 6 = 84

难度：中

10. Assuming that the rate of return of an asset follows a normal distribution with a mean of 8% and standard deviation of 6%, the probability that the rate of return will be below 6% is closest to? Cumulative probability for a standard normal distribution: N (0.33) =0.6293.

A. 62.93%.

B. 59.87%.

C. 37.07%.

Answer: C

本题考点：正态分布标准化。

正态分布标准化：$Z = \frac{X-\mu}{\sigma}$，其中：μ为总体均值，σ为总体标准差。

代入数字：Z=(6%-8%)/6% = -0.33。

由正态分布的对称性可知，P(Z < -0.33)= P(Z > 0.33)= 1 - P(Z < 0.33)= 1- 0.6293 = 37.07%

难度：难

11. The population follows an unknown distribution. The sample mean is 120 and the standard error of the sample mean is 6. The sample size is 120. The 90% confidence interval for the population mean is closest to:

A. 108.24 to 131.76

B. 70.5 to 169.5

C. 110.1 to 129.9

Answer: C

本题考点：估计参数的置信区间构建。构建总体均值置信区间的方式为：点估计 +/- （依赖因子* 标准误）。本题中：

点估计为样本均值：120；

在总体分布未知情况下，当样本数大于 30 时，我们根据中心极限定理，认为均值服从正态分布；依赖因子用 t 分布，但当 n 足够大时，t 分布接近正态分布，因此 90%置信度的依赖因子约为 1.65；标准误为：6；

代入数字：120 +/- （1.65* 6），得（110.1，129.9）。

难度：中

12. An over-fitting statistical model generates a conclusion that the stock price is positively correlated with the number of mice in Country X. The finding is most likely caused by:

A. data mining bias.

B. time period bias.

C. sample selection bias.

Answer: A

本题考点：抽样偏误。

A:数据挖掘偏差是在过度的挖掘数据的过程中，发现统计学上显著的关系；

B:时间偏差是当一些关系或趋势只在某个特殊的时间段才有，但误认为这种关系或趋势会持续下去的偏差；

C:样本选择偏差是把总体的某些数据系统性的排除在外所导致的偏差。

难度：易

13. In regard to Type I and Type II error, which of the following statements is least likely correct?

   A. Given the significance level, the probability of Type I error can also be known.

   B. Type I error means that the null hypothesis is rejected when it is actually true.

   C. Type II error means that the null hypothesis is rejected when it is actually true.

   Answer: C

   本题考点：第一类与第二类错误辨析。

   A：第一类错误的概率等于显著度，所以当知道显著度时，也知道了第一类错误的概率；

   B：第一类错误是当原假设真实成立时，我们却决绝了原假设；

   C：第二类错误是当原假设真实不成立时，我们却没有拒绝原假设。

   难度：易

14. In order to test whether the mean of annual price appreciation of apartments last year in California equals to 10%, an analyst has selected 576 apartments as a sample. The analyst found the annual price appreciation of these 576 apartments had a mean of 9% and a standard deviation of 4%. The corresponding test statistic is closest to?

   A. -0.25

   B. -6

   C. -1.96

   Answer: B

   本题考点：假设检验。当总体分布未知，总体方差未知，但样本量大时，单一总体均值t 检验计量为（也可用z 检验，只是 t 检验会比 z 检验保守一些）：

   $t_{n-1} = \frac{\bar{x}-\mu_0}{\frac{s}{\sqrt{n}}}$,其中：$\bar{x}$为样本均值，$\mu_0$ 为假设的总体均值，s 为样本标准差，n 为样本量

   代入数字：tn-1= $\frac{9\%-10\%}{\frac{4\%}{\sqrt{576}}}$ = -6。

难度：中

经济（15道题）

1. For Giffen goods and Veblen goods, which of the following description is inaccurate?

A. For Giffen goods, the negative income effect overwhelms the positive substitution effect, so the quantity demanded decreases.

B. Both Giffen goods and Veblen goods have upwardly sloped demand curve.

C. Both Giffen goods and Veblen goods are inferior goods.

Answer: C

吉芬商品是低档品，并且是负的收入效应大于正的替代效应的低档品。随着价格下降，吉芬商品的需求也会下降，故选项 A 是正确的。韦伯伦商品属于奢侈品，而非低档品。韦伯伦商品的需求会随着价格上升而增加，因而需求曲线的也是向上倾斜的。B 选项是正确的，C 选项错在误认为韦伯伦商品也是低档品

2. The price of the apple increases 20%, while the quantity demand for apple falls 40%. The price elasticity for the apple is:

A. -2.0

B. -0.5

C. -0.08

Answer: A

价格弹性=（需求变动百分比）/（价格变动百分比）=（-40%）/（20%）= -2.0，故选择 A

3. Which of the following statements most accurately describes the law of diminishing returns?

A. Total product rises when the input increases.

B. Average product will decrease when doubling the number of workers.

C. Marginal product will decrease when doubling the number of workers.

Answer: C

边际回报递减指的是，当技术水平不变，并且土地,机器和其他投入为固定值时，仅仅增加劳动的投入，每新增一单位劳动所带来的额外产出最终会逐渐减小。因此在本题中，投入了双倍劳动力后，总产出会增加，但边际产出会下降。

4. In the long run, a firm in a perfectly competitive market will least likely:

A. Earn economic profit.

B. Produce goods at lowest average cost.

C. Experience economies of scale.

Answer: A

因为完全竞争市场没有进出入壁垒，若存在经济利润，则会有更多企业进入市场，导致市场供给曲线右移、均衡价格下降。若存在亏损，则会有部分企业离开市场，导致市场供给曲线左移、均衡价格上升。故在长期中，市场的均衡点将恰好为边际成本曲线和长期成本曲线的相切点，此时经济利润为零，A 选项是正确答案。在长期中，由于劳动力的分工明确、可以负担更昂贵的设备等一系列因素，企业可以达到规模经济状态以及成本最低有效规模。

5. Which of the following conditions is the most likely condition for a firm to maximize the profit?

A. Price equals marginal cost.

B. Marginal revenue equals marginal cost.

C. Average revenue equals marginal cost.

Answer: B

对于任何市场，厂商取得利润最大化的条件都是 MR=MC, B 选项是正确的。只有在完全竞争市场中，因为厂商是价格接受者，可得 P=AR=MR。因此可用P=AR=MR=MC 作为利润最大化的条件，但这仅在完全竞争市场中成立，故不选A、C 选项。

6. Which of the following statements about monopolistic market is least accurate?
A. Economic profit can exist in the long run due to high entry barriers.
B. The product offered by the seller has no close substitute.
C. A monopolist will charge as high a price as possible.

Answer: C

垄断者想要利润最大化，而不是收取最高的价格。因此，垄断厂商实现利润最大化的条件仍然是 MC=MR，而此时价格不一定最高，故 C 选项是不准确的。垄断市场中，只有一个卖家主导市场，因而不存在相近的替代品。同时，垄断市场有着极高的进出入壁垒，原因可能是政府专利、资源控制等。

7. In an oligopoly market, the demand curve for a manufacturer is approximate horizontal. This situation is most relevant to which of the following models?
A. Kinked demand model.
B. Stackelberg model.
C. Nash equilibrium model

Answer: B

只有在领导者厂商模型中，占主导地位的厂商根据自己的需求曲线决定产量和市场价格，其他小厂商只能接受领导者厂商既定的价格。类似于完全竞争市场，小厂商的需求曲线是水平的。

8. Regarding aggregate demand curve, which of the following statements is most accurate?
A. An increase in government spending will cause the aggregate demand curve to shift to the right.
B. Stock market crash will cause the aggregate demand curve to shift to the right.
C. Low business confidence will cause the aggregate demand curve to shift to the right.

Answer: A

政府支出的增加，会导致总需求增加，AD 线向右移动。自然就是选 A。

股市大跌，会导致居民股票财富减少，从而减少消费，使得总需求减少，AD 线向左移动。所以不选 B。

当企业对于经营前景没有信心的时候，会减少资本投资，从而让 AD 线向左移动，所以不选 C。

9. Which of the following will most likely cause a movement along the short-run aggregate supply curve?
A. Companies expecting that the prices of their products will decrease relative to the general price level.
B. A decrease in general price level.
C. Depreciation of the country’s currency.

Answer: B

物价水平的下降会导致沿着 short- run aggregate supply curve 向左点移动，而不是导致整条线平移，所以选 B。

当企业预期他们的产品价格会相对于整体物价水平下降时，意味着未来的利润率会降低，企业就会减少生产，导致 short- run aggregate supply curve 向左平移。所以不选 A。

当一个国家的货币贬值，购买进口原材料的价格就会上升，企业生产成本上升，会导致 short- run aggregate supply curve 整体向左平移。所以不选 C。

10. Country A is experiencing high inflation combined with high level of unemployment, which of the following best describes the situation?

A. Disinflation.

B. Hyperinflation.

C. Stagflation.

Answer: C

高通货膨胀率叠加高失业率，是滞涨的表现，stagflation。 所以选 C。
Disinflation 指的是物价在减速上涨。所以不选 A。
Hyperinflation 指的是极度通货膨胀，例如津巴布韦的物价飞涨速度就属于hyperinflation。所以不选 B。

11. Which of the following statements is most accurate?

A. The three types of unemployment include underemployment, structural unemployment and cyclical unemployment.

B. The three types of unemployment include frictional unemployment, structural unemployment and cyclical unemployment.

C. The three types of unemployment include frictional unemployment, temporal unemployment and cyclical unemployment.

Answer: B

一共有三种类型的失业， frictional unemployment, structural unemployment 和cyclical unemployment。 所以选 B。

12. Suppose the required reserve ratio is 20% and the supply of base currency is 100,000 in country A. In case other factors are not considered, if central bank adjusts the required reserve ratio to 10%, how will the money supply change?

A. Money supply will drop by 10,000.

B. Money supply will drop by 500,000.

C. Money supply will increase by 500,000.

Answer: C

已知当前的存款准备金率是 20%，则当前货币乘数是 1/20%=5。
则当前的货币供应量是货币乘数乘以基础货币=5□100,000=500,000。当货币准备金率被调到10%时，货币乘数=1/10%=10。

则准备金率变化后的货币供应量是 10□100,000=1,000,000。因此，货币供应量的变化是 1,000,000-500,000=500,000。故而，本题选择 C。A 和 B 答案都不正确。

13. China has a large fiscal deficit, but some economists are not worried about the size of the fiscal deficit. Why are they not worried about the size of the fiscal deficit?

A. Money borrowed may have been used for capital investment projects or enhancing human capital. These lead to increase future outputs and tax revenues.

B. Government borrowing may lead to higher interest rate and lower private sector investment.

C. High level of debt to GDP leads to higher tax rates in the search for higher tax revenues, which discourages economic activities in the future.

Answer: A

A 是对的。中国政府财政赤字导致的借款，可能主要用于资本性项目或人力资本投资, 这能够增加国家未来总产出，也可以增加未来税收收入。因此，这可能是经济学家不担心的原因。
B 是错的。因为政府过多借债会推高市场利率，从而挤出私人部门投资。这是政府财政赤字的不利之处。
C 是错的。因为政府更多的负债可能导致需要未来更高税收来补偿，而未来税收的增加会抑制经济活动。这也是政府财政赤字的不利之处。

14. Assume that country A has an absolute advantage in the production of both potatoes and meat, while country B has a comparative advantage in the production of meat. Which country can benefit from the trade if they trade with each other and why?

A. Country A can benefit from the trade because it has an absolute advantage in both goods.

B. Country B can benefit from the trade because it has a comparative advantage in the production of meat.

C. None. Country B does not have an absolute advantage in each of the two goods, so it will not trade with country A.

Answer: B

B 是对的。国际贸易对国家是否有利，不取决于绝对优势，而是取决于比较优势。因为B 国在生产肉上面有比较优势，所以它可以从贸易中获利。故而，B 是对的。
A 是错的。A 国能够从贸易中获利不取决于其绝对优势，而取决于比较优势。
C 是错的。首先，如果 A 和 B 两国可以相互交易，因为它们都有各自的比较优势，所以它们可以从中贸易中获利；其次，从经济角度来讲，B 国是否与 A 国进行贸易，不取决于其是否有绝对优势，而取决于其是否有比较优势。

15. 15，The table below shows the information about the spot exchange rate：

	Spot rate on January 1, 2017	Change in 2017
CNY/USD	6.9450	-6.3%
JPY/USD	116.7500	-1.74%
HKD/USD	7.7550	0.75%

The CNY/JPY cross exchange rate on January 1, 2018 is *closest* to：

A. 0.0567

B. 17.6369

C. 6.5075

Answer: A

题目要求求出 2018 年 1 月 1 日的人民币和日元的交叉汇率，需要通过同期的美元兑人民币

的汇率和美元兑日元的汇率来计算。

因此，首先分别求出在 2018 年 1 月 1 日美元兑人民币以及美元兑日元的即期汇率。

CNY/USD = [illegible]945[illegible]（1 − [illegible]3%） = [illegible]5[illegible]75

JPY/USD = 11[illegible]75[illegible]（1 − 1[illegible]74%） = 114[illegible]71[illegible]

然后，CNY/JPY =（CNY/USD）/（JPY/USD） = [illegible]5[illegible]75/114[illegible]71[illegible] = [illegible]5[illegible]7。因此，该题目选择 A。

财报（17道题）

1. Which of the following is most likely used to compare a firm's profitability to the industry average?

A. Balance sheet

B. Income statement

C. Statement of cash flow

Answer: B

B 正确，利润表包含当期公司实现的利润，可以用于对比行业平均水平；
A 不正确，资产负债表不能反映公司当前的利润情况；
C 不正确，现金流量表不能反映公司当前的利润情况。

难度：易

2. Which contra account is an offset to current asset?

A. Accumulated Depreciation.

B. Sales return and allowance.

C. Allowance for bad debt.

Answer: C

这道题问的是以下哪一项是流动资产的备抵科目。正确选项为 C，坏账准备为应收账款的备抵科目，应收账款是流动资产。选项 A 累计折旧，为固定资产的备抵科目，故错误。选项 B，销售退回，为收入的备抵科目，故错误。

3. According to the following data, how many shares of common stock should be used to calculate diluted EPS?

* Net income of $1,500,000, tax rate of 35%.

* 1,000,000 shares of common are outstanding at the beginning of the year.

* 10,000，5% convertible bonds with each bond convertible into 10 shares of common stock were issued at par ($100) on June 30th of last year.

* The firm has 100,000 warrants outstanding all year with an exercise price of $25 per share.

* The average stock price for the period is $50.

A. 1,150,000

B. 1,100,000

C. 1,650,000

Answer: A

解析：年初时候，在外流通的股份数为 1,000,000，可转债假设行权所带来的影响为 10,000 * 10 = 100,000。库存股法求出权证所带来的股份数影响 (1-25/50) * 100,000 = 50,000。因此，根据题目信息，计算摊薄 EPS 的股份数为 1,000,000 + 100,000 + 50,000 = 1,150,000。

4. Golden invested financial assets for $100,000 which is classified as held for trading securities and fair value at year end is $90,000. What amounts should be recognized in income statement and balance sheet about this investment?

	Balance Sheet	Income Statement
A.	$100,000	$10,000 unrealized loss
B.	$90,000	$10,000 unrealized loss
C.	$90,000	No gain or loss

Answer: B

交易性金融资产是以公允价值进行后续计量的，所以期末在资产负债表的金额为$90,000，持有期间因为公允价值变动产生的未实现损益计入利润表，所以未实现的损失$10,000 要计入利润表。A 不正确，因为在资产负债表的期末金额应该为$90,000；C 不正确，因为交易性金融资产的未实现损益要计入利润表。

5. Financial assets are measured at fair value except for:

A. trading securities.

B. available for sale securities.

C. held-to-maturity.

Answer: C

持有至到期投资是以 amortized cost 在资产负债表上计量的；A 和 B 不正确，因为交易性金融资产和可供出售金融资产都是以 fair value 计量的。

6. The following information is available for a company:

Sales	$60,000	Dividends paid	$3,000
COGS	$25,000	Decrease in bonds payable	$800
Depreciation	$2,000	Increase in accounts receivable	$3,500
Cash paid for operating expenses & tax expense	$14,000	Decrease in inventory	$2,000
Net income	$19,000	Decrease in accounts payable	$1,500

Which of the following statements is least likely accurate?

A. Cash flow from operating activities under the direct method is $17,000.

B. Cash flow from operating activities under the indirect method is $18,000.

C. Cash flow from operating activities remains the same whichever method is adopted.

Answer: A

A 不正确，用直接法，CFO=$56,500 cash collections ($60,000sales -$3,500 increase in receivables) -$24,500 cash paid to suppliers ($25,000 COGS - $2,000 decrease in inventory+ $1,500 decrease in payables)- $14,000 cash operating expenses & tax expense = $18,000；
B 正确，用间接法，CFO=$19,000net income + $2,000 depreciation expense- $3,500 increase in receivables + $2,000 decrease in inventory- $1,500 decrease in payables = $18,000；
C 正确，直接法和间接法求 CFO 结果是一样的，两种方法只是表现形式不同。

难度：难

考察 CFO 直接法和间接法的计算

7. A company acquired an equipment by using funds raised recently from a loan provided by a commercial bank. The event least likely resulted in:

A. an increase in cash from financing activity.

B. a decrease in cash from investing activity.

C. a decrease in cash from operating activity.

Answer: C

C 不正确，本题不涉及任何经营性活动，故 C 项符合题意。
A 正确，贷款融资是融资性活动现金流的流入，造成现金流增加；
B 正确，购买设备是投资性活动现金流的流出，造成现金流降低。

8. Regarding DuPont analysis, which of the following statements is most likely correct?

A. ROE can be broken down to three components: net profit margin, fixed assets turnover and financial leverage ratio.

B. ROE equals return on assets multiply financial leverage ratio.

C. DuPont decomposition is tax burden ratio×interest burden ratio×gross profit margin×total assets turnover×financial leverage ratio.

9. Johnson, an equity analyst, wants to learn Caterpillar Inc.'s operation profitability and gathers some financial data shown below:

($ in millions)	2017	2016
Revenue	$3,290	$2,595
Operating income	1,980	1,400
EBIT	1,960	1,385
Interest expense	710	610
Tax expense	200	170
Total equity	3,450	2,985
Total liabilities	33,750	30,630

Caterpillar Inc.'s return on assets for 2017 is closest to:

A. 2.97%

B. 2.82%

C. 5.54%

Answer: A

Return on assets = NI / Average of assets
NI = EBIT – interest expense – tax expense = $1960 - 710 - 200 = $1,050
Average of assets = (beginning total assets + ending total assets)/2
Total assets = total liabilities + total equity
所以，average of assets = [($2,985 + 30,630) + (3,450 + 33,750)]/2 = $35,408 ROA = $1,050 / 35,408 = 2.97%
故B 和 C 不正确。B 是因为分母应该用平均总资产，而不是 2017 年的总资产。

10. Which of the following statement is most likely incorrect?

A. Under the LIFO inventory valuation method, COGS reflects the costs of the most recent purchases.

B. In a decreasing price environment, the FIFO inventory cost method results in lower gross profit compared to LIFO.

C. Both LIFO and FIFO inventory method are allowed under both IFRS and U.S. GAAP.

Answer: C

国际准则下不允许使用 LIFO；

A 不符合题意，因为后进先出法假设后买进的存货先被卖出去，卖出的存货的账面价值结转入 COGS，所以后进先出法下的 COGS 更能 reflects the costs of the most recent purchases；

B 不符合题意，因为先进先出法假设先买进的存货先被卖出去，在物价下跌的情况下，相对于后进先出法，先进先出法会报告更高的 COGS、更低的 gross profit。

11. Company MG uses the LIFO inventory cost method under perpetual inventory system and records its inventory as follow:

Beginning inventory, May 1: 4,000 units, ($8/unit)
May 4: Purchase of 1,600 units, ($6/unit)
May 10: Sale of 2,200 units, ($8/unit)
May 21: Purchase of 2,800 units, ($7/unit)
May 29: Sale of 2,500 units, ($9/unit)
The company's ending inventory in May 31 is:
A. $29,300.
B. $25,000.
C. $29,600.

Answer: A

在永续盘存制下，units purchased and sold are recorded in inventory in the order that the purchases and sales occur，每销售一次存货结转一次 COGS，剩下的存货的价值依然留在ending inventory 账上，Ending inventory = 3,400 * $8 + 300 * $7 = $29,300。

B 不正确，因为 B 用的先进先出法，Ending inventory = 900 * $6 + 2,800 * $7 = $25,000。

C 不正确，因为 C 用的期间盘存制，Ending inventory = 3,700 * $8 = $29,600。

12. Regarding the impairment under IFRS and US GAAP, which of the following statements is accurate?

A. A long-lived asset reclassified as held for sale from held for use need not do the impairment test when reclassified.

B. Under US GAAP, assessing recoverability of a long-lived asset is separate from calculating the impairment loss.

C. Under US IFRS, the loss can be reversed if the value of the impaired asset recovers in the future with no limitation.

Answer: B

美国准则要求长期资产的减值计算分两步进行：第一步为进行资产减值测试，通过比较资产的账面价值与其未来产生的现金流量进行判断；第二步为测算资产减值损失，通过计算资产的账面价值与其公允价值之差求得。两个过程的确相互独立。

A 不正确，长期资产由自用转为持有待售时，需要在重分类的时点进行减值测试。

C 不正确，在国际准则下，价值损失可以转回，但转回金额要以曾经确认过的减

值损失为限。

难度：易

13. At the beginning of last year, Riso Company purchased a production line for $80,000 for making toys, which are their star products. According to previous experience, Riso Company estimated that the production line was able to produce a maximum of 500,000 toys and that the production line could be used for eight years with no residual value. At the end of last year, the company actually produced 30,000 toys. Assume Riso Company uses units-of-production depreciation method to measure its fixed assets, the depreciation expense for the line in the last year was:

A. $4,800

B. $8,000

C. $16,000

Answer: A

由于该公司采用产量法计算折旧，因此折旧费用=30,000 × ($80,000 - $0) / 500,000=$4,800。B 不正确。该选项的折旧费用是在公司采用直线折旧法时计算求得的数额，不符合题意，易错。

难度：易

14. Delta company presents its financial information of year 20X6 and 20X7：

	End of Year of 20X7	End of Year 20X6
Deferred tax liability	300	200
Deferred tax asset	240	190
statutory tax rate(%)	25	25

If the statutory tax rate increase to 30% since year of 20X8, what will be the impact on the tax expense?

A. The tax expenses will increase because the amount of increase in DTL is greater than that of DTA.

B. The tax expenses will decrease because the amount of increase in DTL is greater than that of DTA.

C. The tax expenses will decrease because the end balance of DTL is greater than that of DTA.

Answer: A

A 选项正确。由 tax expense=current tax payable+ΔDTL-ΔDTA，本题中ΔDTL=100，ΔDTA=50，即ΔDTL 大于ΔDTA，因此当税率上升时，对 tax expense 的净影响是 increase.
BC 选项错误，原因同上。

15. At the end of year 1, GG company’s disclosed earning before tax was $200,000 and the respective taxable income amounts to $150,000. The difference occurred as a result of the allowance for bad debt, which is not deductible for tax purpose. Assume GG`s current tax rate is 25% and the newly enacted tax rate will be 30%. Regarding the income statement for the first year, what amount of current tax payable should be reported?

A. $37,500

B. $45,000

C. $60,000

Answer: A

A 选项正确。current tax payable= taxable income* current tax rate=150,000*25%= 37,500

B 选项不正确。B 选项用了 taxable income*enact tax rate=150,000*30%= 45,000
C 选项不正确。C 选项用了 EBT*enact tax rate=200,000*25%= 60,000

16. ABC company issued a 8% semi-annual bond with 5 years to maturity. The yield to maturity at issuance is 10% per annum. If the bond’s face value is $1000, the first year end market interest rate is 8% per annum, which of the following statement is correct regarding the bond’s liability at the end of the first year?

A. The bond’s book value is $1000

B. The bond’s book value is $935

C. The bond’s book value is $937

Answer: B

债券的账面价值，由还未支付的票息与面值按发行时的有效利率折现决定。本题中半年付息一次，所以每次票息是 40，有效利率是 5%，一年之后，还未支付票息的期数是 8。按计算器可得 PV = 935（PMT = 40，I/Y=5, N=8, FV=1000, CPT PV = 935）

17. Which of the following may cause overestimation of profit?

A. Recognizing expense expenditures that should be capitalized.

B. Not recognizing impairment loss for obsolete assets.

C. Reducing residual value for depreciation purposes.

Answer: B

对于废弃资产不提减值会降低费用，进而高估利润。A 不正确，因为将本应资本化的支出费用化会低估利润。C 不正确，因为降低折旧残值会增加折旧费用，进而低估利润。

难度：易

公司金融（10道题）

1. Which of the following is the most accurate statement about stakeholder theory?

A. The stakeholder theory holds that purpose of existence of company is to maximize the interests of the shareholders.

B. Compared to shareholder theory, stakeholder theory broadens interests of only shareholders to various groups who have interests in the company.

C. The stakeholder group include shareholders, board of directors, and creditors in total.

Answer: B

B 选项正确。利益相关者利益最大化理论（stakeholder theory）与股东利益最大化理论（shareholder theory）相比，将与公司相关的各方从股东与管理者单方面关系扩大到了所有与公司利益有关的各方。
A 选项不正确，选项中的描述是股东利益最大化理论（shareholder theory），而不是利益相关者利益最大化理论（stakeholder theory）。
C 选项不正确，利益相关者利益最大化理论（stakeholder theory）中的相关各方不仅包括 C 选项列举的股东、管理层和债权人，还包括诸如顾客，供应商，政府等。

2. Which of the following costs associated with capital budgeting is a critical consideration but should not be included in forecasted projects' cash flow?

A. Financing cost.

B. Opportunity cost.

C. Sunk cost.

Answer: A

A 正确，融资成本是一个重要的考虑因素，但是应该作为 cost of capital 反映，而不是考虑在项目现金流中；
B 不正确，机会成本应该被考虑在项目现金流中；
C 不正确，沉没成本不应该放在预测项目现金流中，也不是一个重要的考虑因素。

3. Alvaro Manufacturing is analyzing the earnings potential of an expansion into military equipment supplies. The expansion requires a $200,000 initial investment in return for $60,000 annual after-tax cash inflows for consecutive five years. Assume the cost of capital is 10%. Which of the following conclusions regarding the expansion is most likely correct?

	NPV	IRR	Decision
A)	227,447.21	16.7%	Accept
B)	227,447.21	16.7%	Reject
C)	27,447.21	15.24%	Accept

Answer: C

C 正确，根据项目现金流键入计算器 CF0=-200,000，C01=60,000，F01=5，I=10，CPT→NPV=27,447.21，IRR=15.24%；根据计算结果，该项目 NPV 为正，IRR 大于资本成本，故应该接受。
AB 不正确，计算结果不正确。

4. Based on the following information：

	Debt	Common equity	Preferred stock
Book value ($ ‘000)	400	500	100
Market value ($ ‘000)	450	1200	150
Cost of capital	8%	12%	10%
Marginal tax rate	30%		

What is ABC’s weighted average cost of capital?

A. 10.24%

B. 10.83%

C. 9.24%

Answer: A

计算 WACC时，权重要依据市场价值确定，债务要使用税后成本，所以 WACC＝12□□/(12□□＋45□＋15□)x12%＋15□/(12□□＋45□＋15□)x1□%＋45□/(12□□＋45＋15□) x ∦% (1 − 3□%) = 1□24%。B 不正确，因为计算债务成本时，没有使用税后的成本；C 不正确，因为计算权重时使用的是账面价值。

5. Golden Mining paid a dividend of $3.50 this year, has payout ratio of 40% and return on equity of 15%, and its stock price is $32.50. The cost of equity for Golden is closest to:

A. 19.77%

B. 20.74%

C. 17.42%

Answer: B

g = ROE × (1 - payout ratio) = 15% × (1 - 40%) = 9%, K = (D1 / P) + g = [$3.5 × (1 + 9%) / $32.5] + 9% = 20.74%；A 不正确，因为股利用的是当年的股利（D_0）而不是下一年的股利（D_1）；C 不正确，因为增长率 g 计算错误，g = ROE × payout ratio = 15%×40% = 6%，进而后续计算错误。

6. When considering the relationship between tax rate and WACC, other factors kept constant, which of following is most correct?

A. The higher the tax rate, the higher the WACC.

B. The higher the tax rate, the lower the WACC.

C. The higher the tax rate, the same the WACC.

Answer: B

根据公式 WACC=W_d×K_d×(1-t)+ W_{ps}×K_{ps}+ W_{ce}×K_{ce}，其他条件不变的情况下，当税率上升时，债权的资本成本降低导致 WACC 降低；A 不正确，因为 WACC 会更低而不是更高；C 不正确，因为 WACC 会更低而不是保持不变。

7. Use of fixed costs is referred to as leverage because fixed costs:

A. create unnecessary financial costs.

B. enlarge the magnitude of both earnings and losses.

C. benefit creditors at the expense of owners.

Answer: B

解析：

杠杆（Leverage）的含义指固定成本的投入放大了企业的经营盈利和经营亏损变动程度；注意杠杆概念的本质即放大效应（CFA协会官方教程把杠杆比喻成放大镜）。
A项不合题意：固定成本产生财务成本的事实并未解释固定成本被认为是杠杆的原因；另外，财务成本也未必都是不必要的（unnecessary）。
C项：固定成本并非以损害所有者为代价来使债权人受益，两者的利益并非完全冲突的关系；在公司经营良好的情况下，债券人在获得本息后，所有者反而能享受更大的剩余收益。

8. Below presents a company’s operating data for two fiscal years:

		2017	2016
Units of products sold (in units)		13,500	12,100
Sales price per unit ($)		75	63
Operating profit ($)		264,600	224,790
Net income ($)		71,442	64,070

Based only on the information above, the company’s 2017 degree of operating leverage (DOL) and degree of financial leverage (DFL), respectively, are:

	DOL	DFL
A.	0.54	0.65
B.	1.53	0.60
C.	1.53	0.65

Answer: C

解析：
按照DOL和DFL公式的定义来计算。
DOL = Operating profit的百分比变化/Units sold的百分比变化，代入数据得：DOL = [(264,600/224,790) – 1]/[(13,500/12,100) – 1] = 1.53.
DFL = Net income的百分比变化/Operating profit的百分比变化，代入数据得：DFL = [(71,442/64,070) – 1]/[(264,600/224,790) – 1] = 0.65.

9. Which of the following measures the period that a company takes to pay its suppliers?
A. operating cycle.
B. net operating cycle.
C. number of days of payables.

Answer: C

应付账款周转天数用于衡量企业偿付其供应商款项所耗用的时间。

10. Jackson, an analyst, gathered the following data from Fog Company’s financial report.

	2016	2017
Sales on credit	$16 million	$20 million
Purchase on credit	$4 million	$6 million
Cost of goods sold	$2 million	$7million
Accounts receivable	$6 million	$8 million
Inventory	$5 million	
Inventory purchase	$3 million	$4 million
Accounts payable	$2 million	$6 million

The company’s cash conversion cycle in 2017 is closest to:
A. 67 days.

B. 298 days.

C. 310 days.

Answer: A

应收账款周转天数=365×平均应收账款/赊销收入=365×（$6 million+$8 million）/2/$20 million=127.75（天）

期末存货=期初存货+本期存货采购-销货成本=$5 million+$4 million-$7million=$2million

存货周转天数=365×平均存货/销货成本=365×（$5 million+$2 million）/2/$7million=182.5（天）

应付账款周转天数=365×平均应付账款/赊购金额=365×（$2 million+$6 million）/2/$6million=243.33（天）

因此，现金循环周期=应收账款周转天数+存货周转天数-应付账款周转天数=127.75 天+182.5 天-243.33 天=67（天）

组合（10道题）

1. The uncertainty on whether borrowers can make promised payments on their debt obligations or not is best described as:

A. liquidity risk

B. default risk

C. market risk

Answer: B

在债务关系中，如果债务人没能还款，债权人面对的是违约风险，违约风险又叫信用风险或对手风险，选
B。A 是流动性风险，指无法按照公允价格快速让资产变现的风险。C 是市场风险，指资产的市场价格波动的风险

2. Which of the following statements is incorrect about risk budgeting?

A. Risk budgeting provides a more detailed plan about how the risk should be taken.

B. Risk budgeting guides the implementation of the board’s risk appetite decision.

C. Risk budgeting can be applied to business management but not to portfolio management.

Answer: C

风险预算适用于企业管理也适用于投资组合管理，所以C 描述有误。风险治理分为两大部分，第一部分是董事会决定风险承受度，第二部分是管理层做风险预算，风险预算根据指标给出具体的安排，哪些业务或投资承担多少风险，A和B 都正确。

3. According to Markowitz’s theory, the points on the efficient frontier represent the portfolios which provide:

A. the lowest risk and highest return compared with all of the other attainable portfolios.

B. maximum diversification benefits among risk assets.

C. the cheapest construction cost and the most efficient choice.

Answer: B

有效前沿上的点代表的是做到完全分散化之后的资产组合，它能保证在每一个收益水平上风险最低，而每一个风险水平上收益最高，所以 A 错误。有效前沿上的点并不表示有最低的构建成本，C 错误

4. A risk-neutral investor has the following features except that:

A. the indifference curve of the investor is horizontal.

B. the investor only cares about the risk of investments.

C. the investor only cares about the expected return when making investments.

Answer: B

风险中性的投资者只关注投资收益，不在意风险水平，不会要求一个固定的风险，这使得他的无差异曲线是水平的，与纵轴的交点是他要求的回报率水平（风险为零）。所以本题 B 选项的描述错误，A 和 C 描述正确。

5. According to the following information of two stocks:

The standard deviation of stock A	19.4%
The standard deviation of stock B	17.2%
The expected return of stock A	9.6%
The expected return of stock B	7.8%
The correlation coefficient between stock A and B	0.76

What is the covariance between the two stocks' returns?

A. 0.0254

B. 0.0507

C. 0.0057

Answer: A

协方差的正确计算过程为：

$Cov(A,B) = \rho_{AB}\sigma_A\sigma_B = 0.76 \times 0.194 \times 0.172 = 0.0254$

选项 B 错误。在 A 的基础上多乘了 2，同组合方差的计算公式混淆了。

选项 C 错误。错用了股票期望回报率代入了公式：$Cov(A,B) = \rho_{AB}R_AR_B = 0.76 \times 0.096 \times 0.076 = 0.0057$

6. A consultant selects the following portfolios.

Portfolio	Expected Return	Standard Deviation
Alpha	14%	6%
Beta	17%	10%
Gamma	22%	15%

And he is sure that one of his clients shows the risk aversion coefficient A=2. Which portfolio will the consultant most likely recommend for this client, according to the application of Utility Theory?

A. Alpha

B. Beta

C. Gamma

Answer: C

将三个组合的收益和风险特征分别代入效用函数的公式当中去，观察哪一个组合可以得到最大的效用值。

组合 Alpha：$Utility = E(R) - \frac{1}{2}A\sigma^2 = 14\% - \frac{1}{2} \times 2 \times (6\%)^2 = 0.1364$

组合 Beta：$Utility = E(R) - \frac{1}{2}A\sigma^2 = 17\% - \frac{1}{2} \times 2 \times (10\%)^2 = 0.16$

组合 Gamma：$Utility = E(R) - \frac{1}{2}A\sigma^2 = 22\% - \frac{1}{2} \times 2 \times (15\%)^2 = 0.1975$

显然选择组合 Gamma 对于这位客户的效用获取是最大的。故选C。

7. There is a portfolio with the expected return of 8% and the standard deviation of 13%. When the risk aversion coefficient changing from 4 to 5, the amount of change in utility is closest to:

A. -0.0169

B. -0.0650

C. -0.0084

Answer: C

效用函数为：$\text{Utility} = E(R) - \frac{1}{2}Aa^2$

A=4 时：$\text{Utility} = $ [illegible]% $- \frac{1}{2} \times 4 \times (13\%)^2 =$ [illegible]4[illegible]2

A=5 时：$\text{Utility} = $ [illegible]% $- \frac{1}{2} \times 5 \times (13\%)^2 =$ [illegible]37[illegible]

所以$\Delta\text{Utility} =$ [illegible]37[illegible] $-$ [illegible]4[illegible]2 $= -$ [illegible]4

8. There are two comments about the indifference curve and the efficient frontier:
Comment 1: With risk getting higher, a risk-averse investor requires higher return compensation.
Comment 2: The efficient frontier is convex, which shows that a larger increase in the portfolio's expected return is offered as the risk increases. Are the two comments correct?

A. Yes.
B. No, only Comment 1 is correct.
C. No, only Comment 2 is correct.

Answer: B

风险厌恶投资者的无差异曲线是凸形态的，使得他们在每接受额外一单位风险时要求更高的边际回报，但这和客观的有效前沿无关，有效前沿的曲线是凹形态的，也就是沿着曲线向右，随着组合风险不断增大，组合收益边际增长速度是降低的。所以 Comment 1 正确，Comment 2 错误，选 B

9. The slope of the security market line (SML) and the risk reflected by the CAPM model are:

	Slope	Risk attributable
A.	Market risk premium	total risk
B.	Excess market return	market risk
C.	Sharpe ratio	total risk

Answer: B

SML 的斜率为市场组合的额外收益 $E(R_M) - R_f$， CAPM 给出的资产期望回报率完全基于市场额外收益这个唯一的风险因子，不考虑资产的特有风险，所以并不是对总风险给出补偿。故选B。另外，市场额外收益（excess market return）和市场风险溢价（market risk premium）是完全等价的概念。

10. The most suitable case of client's willingness to take risks rather than the ability to take risks is:

A. The client owns two pension plans separately from his employer and the government.
B. The client is young and will retire in 25 years.
C. The client pays more attention to the safety of principal rather than earning potential gains.

Answer: C

客户的风险承受意愿是主观行为，注重本金安全而不愿意去冒险投资高风险产品，就是一个很好的例子。选项A和B描述的是客户的客观风险承受能力。

权益（20道题）

1. Which of the financial assets has the following characteristics?
   - It belongs to the pooled investment vehicles.
   - Investors could sell their shares to other investors in the secondary market.
   - It is always traded at a discount to its NAV.

A. Open-end fund

B. Close-end fund

C. ETF

Answer: B

集合投资工具有开放式基金、封闭式基金、资产支持证券和对冲基金等。

选项 A 中，开放式基金是投资者直接向发行这个基金的公募基金进行申购赎回，而且成交价格往往就是 NAV；
选项 B 中，封闭式基金的份额保持不变，投资者在二级市场进行买卖交易，且交易价格往往低于 NAV；
选项 C 中，ETF 是交易所交易基金，投资者可以通过交易所直接进行买卖。

2. Currently the best bid price and best ask price for the stock Priceline are \$24.2 and \$24.8. Which of the following orders is at the status of “take the market”?

A. A limit buy order placed at \$24.2

B. A limit buy order placed at \$24.8

C. A limit buy order placed at \$24.5

Answer: B

如果交易单的状态是 take the market，意味着一个限价买单挂在目前最佳卖价（best ask），或者一个限价卖单挂在目前最佳买价（best bid）。选项 A 对应的状态为 make the market；选项 C 对应的状态为 make a new market。

3. An investor buys Lowe’s stock on margin at \$15 per share. The initial margin requirement and maintenance margin requirements are 40% and 30%. The margin call price is closest to:

A. \$12.86

B. \$13.86

C. \$14.86

Answer: A

计算触发 margin call 的公式为 $P = P_{\square}*(1\text{-}IM)/(1\text{-}MM) = \$15*(1\text{-}40\%)/(1\text{-}30\%)=\$12.86$

4. The price return of the portfolio using equal-weighting method is closest to:

Stock	Beginning Price	End price	# of shares	Dividends
A	14	12	500	2 per share
B	33	38	300	1.2 per share
C	28	30	700	1.5 per share
D	24	20	700	2.5 per share

A. -2.0%

B. -2.2%

C. -2.4%

Answer: B

等权重法计算价格回报，就是计算指数内各成分股的持有期回报率的算术平均：[（12/14-1）+（38/33-1）+（30/28-1）+（20/24-1）]/4 = -2.2%

5. Which of the following factors has the largest impact on the index value based on the market-capitalization weighted method?

A. Stock price

B. Numbers of shares outstanding

C. Stock price and numbers of shares outstanding

Answer: C

指数如果根据市值加权，成分股的市值越大，对指数价值的影响也就越大。股票的市值计算为每股的价格乘以总股本，所以选项 A 和选项 B 错误。

6. Which of the following is not useful functions of security market indices for an active investment manager?

A. To calculate beta and measure market sentiment

B. To be performance benchmark and to model index portfolio

C. To calculate expected returns and risk-adjusted returns

Answer: B

主动投资经理的目标是打败市场，在构建投资组合的适合往往需要进行大量计算，比如市场的贝塔值和预期收益率，还需要了解市场中参与者的情绪；而选项 B 中，构建一个组合来复制市场指数的走势往往和被动投资经理有关。

7. Which of the following regarding the strong form of the efficient market hypothesis (EMH) is most likely correct?

A. The stock price reflects private information only

B. The stock price reflects public and private information only

C. The stock price reflects public, historical and private information

Answer: C

有效市场假说中，强有效市场是包含半强有效和弱有效市场的。在强有效市场中，股价充分反映了历史信息、公开信息以及内幕信息。

8. Which of the following statements is most accurate regarding the market anomalies?

A. The stocks with above-average P/E ratios have consistently outperformed the stocks with below-average P/E ratios.

B. The large market-cap stocks have consistently outperformed the small market -cap stocks.

C. Close-end funds usually trade at a discount from NAV.

Answer: C

A 选项表述错误，P/E 较高的公司为成长股，P/E 较低的公司为价值股，根据 value effect，价值股的表现会持续地优于成长股；
B 选项表述错误，根据 size effect，小盘股的表现会持续地优于大盘股。
封闭式基金通常的交易价格相对于其 NAV 都会有一个折价，属于市场异常现象

9. An investor heard that many of his friends bought a small-cap stock XXX. He then bought 1,000 shares without thinking. He most likely exhibits:

A. Information cascades

B. Herding behavior

C. Narrow framing

Answer: B

B 选项指羊群效应，投资者盲从大多数人的做法，是不理性的行为。
A 选项指信息瀑布，信息渠道和能力弱的人跟随信息渠道和能力强的人去买卖证券，是理性行为。
C 选项指框架效应，对同一个问题的反应，思考的角度和方式不同，会产生不同的决策判断。

10. There are three types of common shares issued by the same company in the market. Which of the following shares has the lowest risk for the investors?

A. The common shares.

B. The callable common shares.

C. The putable common shares.

Answer: C

Callable common shares 是可赎回普通股，指发行公司拥有以约定价格向投资者要求赎回股票的权利。这是对公司有利，对投资者不利的条款。
Putable common shares 是可卖回普通股，指投资者拥有以约定价格向发行公司要求卖回股票的权利。这是对投资者有利，对公司不利的条款。
从投资者所面临的风险角度考虑，Callable common shares>Common shares>Putable common shares

11. Which of the following types of preference shares most likely entitles shareholders to convert their shares into a specified number of common shares?

A. Participating preference share.

B. Convertible preference share.

C. Cumulative preference share.

Answer: B

Convertible preference share 是指可转换优先股，允许可转换优先股持有者以约定比例将优先股股份转换成普通股股份。
A 错误，Participating preference share 是指参与型优先股，参与型优先股股东在享受固定分红基础上，当公司盈利超过预期水平，还可享有额外分红。
C 错误，Cumulative preference share 是指累计优先股，如果过去几年没有分红，在公司开始分红时，累计优先股股东可以获得之前几年的分红补偿，之后红利继续分配优先股股东，然后再是普通股股东。

12. A portfolio manager is designated to vote in the board election on behalf of his clients. Which of the following voting systems is a best fit for this situation?
   A. Proxy voting.
   B. Statutory voting.
   C. Each class of shares offers different ownership rights.

Answer: A

基金经理受客户委托去参加公司投票，这属于委托代理投票。
B 选项指法定投票，股东投票时每一股有一票的投票权。
C 选项指同股不同权，上市公司股权结构中有两类或多类普通股，每一类普通股含有不同投票权。

13. Consumer staple is most likely sorted in which of the following types of industry?
   A. Defensive
   B. Growth
   C. Cyclical

Answer: A

Defensive industry 是指防御型行业，这个行业具有相对稳定的市场需求。而 Consumer staple industry 是指消费者常用品，日常必需品行业，包括食品、日化用品等，对经济周期变化的敏感度较低，需求相对稳定，因此属于防御型行业，选 A。

14. Which of the following factors implies a more intense industry competition?
   A. An industry has high barriers to entry.
   B. Customers can easily switch to other similar products.
   C. An industry provides differentiated products.

Answer: B

题目考察了波特五力模型。
A 选项，进入门槛高的行业（Threat of entry），行业竞争程度较低。
B 选项，行业中同类商品、可替代性商品越多，定价能力越低，行业竞争程度越高（Threat of
substitutes）。
C 选项，主要提供个性化产品的行业，行业竞争程度较低（Rivalry among existing competitors）。

15. According to the industry life cycle, high prices, high risk of failure and substantial investment are most likely to be the characteristics of:
A. Growth stage
B. Mature stage
C. Embryonic stage

Answer: C

在 Embryonic stage，企业需要更多前期投入，保证产品研发。由于产品处于初期阶段，消费者对产品不了解，经营失败可能性较高。同时，由于成本高，销量较少，行业未形成规模经济，因此产品价格较高。
在 Growth stage, 失败的风险较低，投入也相对较低，因此 A 错误。
在 Mature stage，市场份额稳定，行业参与者失败风险较低，后期投入也相对较低，因此 B错误。

16. A utility company is most likely characterized as a:

A. Cyclical company

B. Defensive company

C. Growth company

Answer: B

Utility 是指公用事业，包括水电煤供应。公用事业行业受行业周期影响较少，属于非周期性行业中的防御性行业。

17. Based on the following information, the current value per share of the company is closest to:

Dividend per share this year	\$2.4
Expected dividend growth in year 1	20%
Expected dividend growth in year 2	15%
Expected stock value in year 2	\$36
Investors' required rate of return	11%

A. \$31.61

B. \$34.05

C. \$34.50

Answer: C

$$V = \frac{D_1}{1+r} + \frac{D_2}{(1+r)^2} + \frac{P_2}{(1+r)^2}$$

$$= \frac{\$2.4 \times (1+20\%)}{1+11\%} + \frac{\$2.4 \times (1+20\%) \times (1+15\%)}{(1+11\%)^2} + \frac{\$36}{(1+11\%)^2}$$

$$= \$34.50$$

18. Based on the following information, calculate the justified forward P/E:

Estimated ROE	12%
Estimated retention ratio	70%
Required rate of return	14%

A. 2.88x

B. 12.5x

C. 5.36x

Answer: C

- 计算 dividend payout ratio: Dividend payout ratio = 1-Retention ratio = 1-70%=30%
- 计算 growth rate: g = ROE x Retention ratio =12% x 70% = 8.4%
- 计算 justified forward P/E:

$$\text{justified } \frac{P_0}{E1} = \frac{\frac{D_1}{r-g}}{E1} = \frac{D_1}{E1} \times \frac{1}{r-g} = 30\% \times \frac{1}{14\% - 8.4\%} = 5.36x$$

19. Which of the following statements least accurately describes the asset-based valuation?

A. Asset-based model assumes that equity value can be estimated by the difference between the fair value of asset and the fair value of liability.

B. Asset-based model is inappropriate for companies holding lots of intangible assets or financial companies.

C. Asset-based model is appropriate for valuing firms approaching liquidation.

Answer: B

B 选项表述有误，asset-based model 不适用于有大量无形资产的公司的估值，但是金融企业由于其资产负债表中持有大量流动性强、有公开交易价格的金融资产，因此适合用asset-based model 来估值。
A 选项表述正确，asset-based model 估值中，Market value of equity = market value of assets – market value of liabilities。
C 选项表述正确，清算企业变卖其有形资产，asset-based model 能够帮助公司提供一个更可靠的估值。

20. Stock A is currently traded at $28. The expected dividend next year is $2 per share and the sustainable growth rate is 6%. Based on the Gordon Growth Model, the implied required return is closest to:

A. 13.14%

B. 13.57%

C. 14.27%

Answer: A

根据 GGM，$P_0=D_1/(r-g)$。已知 P_0, D_1, g，解方程可以求出 r。

$$28 = \frac{2}{r - 6\%}$$

求出 r=13.14%

固收（20道题）

1. A bond issued by the World Bank can be best described as a:
A. company bond.
B. supranational bond.
C. sovereign bond.

Answer: B

本题考查债券的 issuer 基本概念。The World Bank 属于 supranational organization。

2. Regarding putable bonds, which of the followings is incorrect?
A. The put provision is beneficial to the issuers.
B. Compared with equivalent non-putable bonds, putable bonds will offer a lower yield.
C. The bondholders could sell the bond back to the issuer at a pre-determined price on specified dates.

Answer: A

本题考查 putable bonds 的基本概念。
可回售债券包含的权利属于债券投资人(bondholder)，即在债券到期之前，投资人可以提前把债券卖还给发行人。在利率上升时投资人会行使此权利，这是因为此时投资人可以通过回售债券提前取回本金，以更高的利率将本金贷出，收益更高，所以债券内嵌回售条款有利于债券投资人。由于此权利对投资人有利，所以其价格比相同条件的不可回售债券的价格高，或者说投资人能接受更低的收益率。

3. Which of the following bonds can be described as domestic bonds?
A. China Vanke Co. issued a RMB-denominated bond in China.
B. Apple Inc. issued a RMB-denominated bond in China.
C. Microsoft Corporation issued a euro-denominated bond in China.

Answer: A

本题考查不同市场债券的基本概念。
国内债券(domestic bonds)属于本币债券(National bonds)，其发行地、发行人、发行货币三者一致。B 选项是外国债券(foreign bonds)，其发行地与发行货币一样，但发行人与前两者不一致；C 选项是欧洲债券(Eurobonds)，其发行地与发行货币不一样，对发行人无要求。本题 A 选项是中国企业万科在中国发行的人民币标价的债券即为国内债券(domestic bonds)。

4. Which of the following provisions least likely incurs a reinvestment risk to investors?
A. Conversion provision.
B. Sinking fund provision.
C. Call provision.

Answer: A

本题考查 reinvestment risk 基本概念。
B 选项：sinking fund provision 要求债券发行方在债券存续期间定期提前偿还部分本金，这种

安排可以降低发行人到期无法偿还本金的风险，即降低信用风险。然而，投资者提前收回的本金需要进行再投资，再投资收益率可能无法达到原先债券的收益率，即存在再投资风险；
C 选项：可赎回债券包含的权利属于债券发行人，即在债券到期之前，发行人可以提前赎回全部或部分债券，即发行人拥有提前归还本金的权利。在利率下降的时候发行人会行使此权利，因为此时发行人赎回债券后能够以更低的利率重新发债融资，从而降低融资成本。但是，此时投资者就会面临再投资风险，因为市场利率下降了，再投资回报率低于被赎回债券的回报率；
A 选项：可转换债券的 conversion provision 赋予债券持有人把其持有债券转换为发行公司股票的权利，与再投资风险无关。

5. Eric, CFA, considers a convertible bond with a par value of $1000 and it is currently traded at $1050. The conversion value is equal to the conversion ratio times the underlying share price. If the conversion ratio is 20, which of the following underlying share prices would most likely prompt the bondholder to convert the bond into the common shares?

A. $50

B. $52

C. $55

Answer: C

本题考查可转换债券的基本概念。当可转换债券的转换价值大于可转换债券市场价值的时候，投资者会选择将可转换债券转换为可转债发行公司的普通股。当标的股票市价为 55 时，转换价值=转换比例*标的股票市价=20*55=1100，大于可转换债券市场价值 1050。

6. Bond X and Bond Y were issued 6 months ago and will mature in 6 months and 18 months, respectively. Which of the followings is correct?

A. Bond X is a money market security.

B. Bond Y is a money market security.

C. Both Bond X and Bond Y are money market securities.

Answer: A

本题考查债券按到期日分类的基本概念。
Bond X 和 Bond Y 都是 6 个月前发行的，但是 Bond X 未来 6 个月内将到期，所以其原始到期时间(original maturity)为 1 年，属于货币市场证券(money market security)。Bond Y 还有 18 个月到期，所以属于资本市场债券(capital market security)。

7. With regard to a repurchase agreement, which of the followings would result in a lower haircut?

A. The longer repo term.

B. The high demand or low supply of the collateral security.

C. The lower credit quality of the collateral security.

Answer: B

本题考查回购协议(repurchase agreement)的基本概念。
回购价差(repo margin/haircut)是指回购中证券的市场价值与贷款价值之间的差值，相当于是对抵押证券价值的一种折扣计算，用以应对借款方的信用风险——抵押证券在回购期内价值

下降，贷款方可能面临着借款方不愿意按约定回购债券的风险。另外，证券本身也存在违约的风险，所以也会被要求打一定的折扣。

A 选项：回购期越长，回购价差越大。回购期长，信用风险大, 从而要求回购价差越大；

B 选项：抵押证券需求越大，回购价差越低。市场对抵押证券的需求大，说明该证券的稀缺度较大，越有价值，从而回购价差就较低；

C 选项：抵押证券的信用质量越低，回购价差越高。信用质量越低，证券违约风险越大，从而要求回购价差越大。

8. With regard to the repurchase agreements, which of the following statements is most accurate?

A. The repo rate is higher when the repo term is shorter.

B. The haircut is higher when the credit quality of the borrower is higher.

C. The repo margin is lower when the repo term is shorter.

Answer: C

本题考查回购协议(repurchase agreement)的基本概念。

A 选项：回购期限越短，回购利率越低。因为期限短，资金使用成本自然就低，回购利率就低；

B 选项：融资方(借款方)信用越高，回购价差越低。融资方信用越高，不按约定价格回购的抵押证券的信用风险越低，从而贷款方对抵押证券打得折扣就较低；

C 选项：回购期越短，回购价差越小。回购期短，信用风险小，从而要求的回购价差越小。

9. Comparing weighted average coupon rate with pass-through rate, the former tend to be:

A. lower.

B. the same.

C. higher.

Answer: C

Pass-through rate 是投资者收到的票息率。weighted average coupon rate（WAC）是资产池里贷款利率的加权平均值。Pass-through rate 比 WAC 小，主要原因是需要扣除服务费和管理费

。

10. Because many commercial mortgage-backed securities (CMBS) are partial amortized, the CMBS investors may face:

A. liquidity risk.

B. contraction risk.

C. balloon risk.

Answer: C

本题考查气球风险。

由于 CMBS 多为部分摊销，即最后一期期末偿还的本金金额较大，所以投资人面临气球风险，也就是大额本金无法及时偿还的风险。

11. It is an advantage for a borrower if the mortgage loan:

A. is a recourse loan.
B. has a prepayment option.
C. has a prepayment penalty provision.

Answer: B

本题考查按揭贷款的特征。
选项 A：有追索权贷款，在借款人违约时，除了可以将抵押品变卖之外，还可以继续向借款人索取差额。因此对借款人不利；
选项 B：提前还款权利使得借款人可以选择提前归还本金而不必受罚，提前还款条款可以增强银行贷款对借款人的吸引力；
选项 C：提前还款罚金是指提前还款会受到处罚，需要缴纳一定的罚金，此条款可以保护贷款人的提前还款风险。

12. If a mortgage pass-through security has a prepayment rate of 150 PSA, its prepayment speed is
:
A. lower than prepayment benchmark.
B. equal to prepayment benchmark.
C. higher than prepayment benchmark.

Answer: C

本题考查 PSA。PSA 基准是 100PSA，数字越大，提前还款的速度越大。

13. According to the following information, which bond has the greatest duration?

Bond	Maturity	Coupon rate
X	5	5%
Y	10	5%
Z	10	3%

A. Bond X.
B. Bond Y.
C. Bond Z.

正确答案: C

本题考察影响久期的因素。
选项 A：其他条件相同，期限越长久期越大，因此 Bond X 与Bond Y 相比，排除 Bond X；
选项 B：其他条件相同，票息率越低久期越大，因此bond Y 与 Bond Z 相比，排除Bond Y。

14. John, a CFA candidate, recently bought a 10-year bond with a 3.5% YTM and a 4% coupon rate. It is currently priced at 105. He predicts that the price will decrease to 98 when YTM rises by 1%, and the price will increase to 114 when YTM declines by 1%. The approximate modified duration of this bond is closest to:
A. 76.2
B. 7.62
C. 15.24

Answer: B

本题考察近似修正久期的计算。Modified duration= (114 - 98) / (2 x 105 x 0.01) =7.62

选项A：位数计算错误。

选项B：公式漏除2。

15. An investment portfolio consists of two bonds, X and Y. X is a 10-year zero-coupon bond, Y is a 10-year bond with a coupon rate of 10%. Given that the market interest rate increases by 10 bps, which of the followings is most accurate?

A. The price of bond X will increase, but bond Y will decrease.

B. Prices of both bonds will decrease, but bond X will decrease more.

C. Prices of both bonds will decrease, but bond Y will decrease more.

Answer: B

本题考察久期性质。

A选项：当前市场利率上升，两种债券的价格都下降；

B与C选项：其他条件不变，票息率越高，久期越小，因此bond X 的久期大于 bond Y的久期。久期越大，债券价格对利率变化越敏感，因此bond X的价格下降更多。

16. John and Angel, CFA candidates, are discussing the characteristics of convexity. Which of the following conclusions is/are most accurate?
John: If the callable bond is more likely to be exercised, its convexity will tend to be negative.
Tony: Putable bonds typically have positive convexity.

A. Only for John.

B. Only for Tony.

C. Both John and Tony.

Answer: C

本题考察可赎回与可回售债券的凸度特征。

John表述正确：当利率较低时，可赎回债券往往呈现出负凸度。

Tony表述正确：当利率较高时，可回售债券往往呈现更大的凸度，且可回售债券的凸度一般为正。

17. Expected loss is negatively related to:

A. default probability.

B. loss severity.

C. recovery rate.

Answer: C

本题考查 expected loss 公式。

Expected loss= default probability* loss severity= default probability*(1- recovery rate)，因此与期望损失负相关的是回收率。违约概率和损失严重度均与期望损失正相关。

18. Which of the following statements correctly explains seniority ranking?
Statement1: In general, senior subordinated debt has a higher priority of claims than senior unsecured debt.
Statement2: Priority of claims is not always absolute.

A. Statement 1.
B. Statement 2.
C. Both statement 1 and statement 2.

Answer: B

本题考查清偿顺序。通常，senior unsecured debt 要优先于 senior subordinated debt。但是受偿顺序不是绝对的，会受到政策、法律、公司重组方案、各方利益主体的纠纷的影响。

19. Which of the followings is not the component of yield spread?
A. Credit spread.
B. Market spread.
C. Liquidity premium.

Answer: B

本题考查利差的构成。利差是指某只有违约风险的债券与相同期限的无违约风险债券的收益率之差，主要由信用价差风险和流动性溢价构成。

20. When analyzing sovereign debt, a major difference with analyzing corporate debt is that it is important to consider:
A. economic condition.
B. the ability to pay.
C. the willingness to pay.

Answer: C

本题考查主权债券。由于主权债券违约很难进行追讨，因此政府是否有意愿偿还是需要额外考虑的。

衍生（10道题）

1. An investor buys a put option on a stock with a strike price of $30. At expiration, the investor:
A. has a right to buy the stock at $30.
B. has a right to sell the stock at $30.
C. has an obligation to sell the stock at $30.

Answer: B

本题考查期权的基本性质。Put option 的多头方将来有权利以执行价格卖出 underlying asset。

2. Which of the following statements is most correct?
A. Forward market contracts are customized and regulated.
B. Futures market contracts are standardized and have no default risk.
C. Forward market has greater liquidity than futures markets.

Answer: B

本题考查不同交易市场及其合约的特征。远期合约对应场外市场(OTC: customized, default risk, unregulated, less transparent)，期货合约对应场内市场(Exchange-traded markets: standardized, no default risk, regulated, transparent)；另外，相对于场外市场，场内市场的合约是标准化、无违约风险的，从而其流动性会大大增加。

3. Which of the following statements about forward and futures are most correct? Statement 1: Both of them can be settled through delivery of the underlying asset. Statement 2: Forward contracts can be used to create a perfect hedge, but futures cannot. Statement 3: Forward is better than futures.
A. Statement 1 and Statement 2.
B. Statement 1 and Statement 3.
C. Statement 2 and Statement 3.

Answer: A

本题考查 forward 与futures 结算方式、风险对冲和市场参与者相关概念的比较。
A 选项：statement 1, forward 与 futures 都可以采用实物交割的方式进行结算;statement 2,forward 是定制化的合约，可以根据需求设定合约条款实现完全对冲风险，而 futures 是标准化的合约，很难实现风险完全对冲；
B、C 选项：statement 3，forward 与 futures 各有特点，不同的市场参与者有不同的目标，从而会根据各自的需求选择最合适的衍生品，所以不能直接评判优劣。

4. In a call option, the underlying stock is traded at $10, and the strike price is $12. The call option is said to be:
A. in-the-money.
B. at-the-money.
C. out-of-the-money.

Answer: C

本题考查 option 的 moneyness 的基本概念。对于 call option 来说，当 St ‹ X 时，如果立即行

权就是用更高的价格 X 去买价值为 St 的股票，是不划算的，所以此时期权处于虚值状态(out-of-the-money)。

5. In a call option, the underlying stock is traded at $10, and the strike price is $12. The call option is said to be:

A. in-the-money.

B. at-the-money.

C. out-of-the-money.

Answer: C

本题考查 option 的 moneyness 的基本概念。
对于 call option 来说，当 St < X 时，如果立即行权就是用更高的价格 X 去买价值为 St 的股票，是不划算的，所以此时期权处于虚值状态(out-of-the-money)。

6. Which of the following statements regards to swap is least correct?

A. A swap is a series of off-market forwards.

B. A swap is usually traded in an organized secondary market.

C. A swap is difficult to alter or terminate.

Answer: B

本题考查 swap 的基本概念。
A 选项：互换实际上是一系列现金流的流入流出，所以可以看成是一系列(off-market)远期合约；B 选项：互换是场外市场交易(OTC)；C 选项：一方面，由于互换的现金流复杂，而且是定制化的合约，所以较难转让；另一方面，互换一般是大型金融机构之间用来对冲风险的金融工具，考虑到信誉问题，一般不会单方面随意终止。

7. With respect to an equity forward, which of the following statements is most accurate?

A. The value of an equity forward will not change over the life of the contract.

B. The price of an equity forward will not change over the life of the contract.

C. The value of an equity forward is equal to the price of the underlying equity.

Answer: B

本题考查衍生品 price 和 value 的区别。远期合约的价格是签订合约时约定的固定价格，合约签订后不会变化。远期合约的价值会随着标的资产价值的变化而变化，是标的资产当前价值与折现到当前时刻的合约价格的差值。

8. It may be beneficial to early exercise American call option, if:

A. the underlying asset pays dividend during the life of the option.

B. it is in-the-money.

C. there is no cash flow during the life.

Answer: A

本题考查美式期权和欧式期权的区别。
当标的资产有中间收益时，提前行权可以避免由于分红带来的标的资产价格的下跌。如果没

有分红，提前行权将损失期间的时间价值，所以美式看涨期权在没有现金流的情况下，不需要提前行权，但是在有分红收益下，应该提前行权。

9. Using put-call parity, which of the following combinations is equivalent to a synthetic long put position?

A. long asset, long call option, short bond.

B. short call option, long bond, long asset.

C. long call option, long bond, short asset.

Answer: C

本题考查通过 put-call parity 公式合成看跌期权。根据公式 $p = c + X/(1 + r)^T - S$。所以选项 C 正确。

10. An investor bought a call option which had an exercise price of \$50 and the time to maturity is one year. After three months, the price of the underlying asset is \$45. The option premium is \$2. What is the payoff of this call option now?

A. \$5

B. \$0

C. -\$2

Answer: B

本题考查期权的payoff。投资者购买了一个执行价格为\$50的看涨期权，期限为1年。三个月以后该标的价格为\$45。但题干中有一个干扰项，就是期权费是\$2.需要注意的是，在计算payoff的时候，premium是不需要计算在内的，因此该期权目前是out of the money的状态下，所以payoff是max{0, S-X}=max{0,45-50}=0

另类（10道题）

1. The following fee structure applies to a hedge fund:

Beginning-of-the-year AUM	\$200 million
Management fee	2%
	Based on ending-of-the-year AUM
Incentive fee	20%
	Calculated independent of management fee
	Soft hurdle rate 7%
End-of-the-year AUM	\$212 million

Investor's annual net return is closest to:

A. 2.68%

B. 3.88%

C. 3.46%

Answer: B

- 计算管理费用：Annual management fee=Ending-of-the-year AUM*2%=212*2%=\$4.24
- 计算激励费用：Return before adjusted for fees=212/200-1=6%<Soft hurdle rate 7%，所以不可收取激励费用，Incentive fee=0
- 计算收益率：Return= (212- 4.24)/ 200 -1=3.88%

2. Which of the following is least likely a characteristic of the REIT index?
   A. The index is based on actual trading price.
   B. The index is more reliable if REIT shares are more frequently traded.
   C. REIT index return has very low correlation with equity investment return.

Answer: C

REIT 指数收益与权益证券投资回报相关性较高，与固定收益证券投资回报相关性较低，因此 C 不正确。
A 选项表述正确，REIT 指数是基于在公开市场上进行交易的 REIT 份额的交易价格来构建的指数。
B 选项表述正确，市场上交易的 REIT 份额交易越活跃，交易数据越多，价格越接近公允，构建的 REIT 指数越可靠。

3. An analyst is studying four forms of real estate investment:
   - Mortgages
   - Shares of REITs
   - Mortgage-backed securities
   - Real estate limited partnerships

How many forms mentioned above can be classified as direct investment in real estate equity?

A. None

B. One

C. Two

Answer: B

只有 Real estate limited partnerships 是房地产有限合伙投资，属于直接房地产股权投资。
Mortgages 是房屋贷款，银行或者其他房贷机构直接持有房地产相关债权。
Shares of REITs 是通过持有房地产信托投资基金份额，间接持有房地产相关股权。

Mortgage-backed securities 是通过持有住房抵押贷款证券化产品，间接持有房地产相关债权。

4. Which of the following is most likely a characteristic of leveraged buyouts?
A. Management buy-ins mean that the existing management team acquires the company.
B. Firms with low leverage and a significant amount of physical assets are attractive as LBO targets.
C. Inefficient companies are unlikely to become LBO targets.

Answer: B

B 选项正确，杠杆比率低，自身举债少的收购标的对收购方更有吸引力，因为收购方可以更加容易通过借款募集收购资金。
A 选项不正确，Management buyouts 才是现有管理层收购，Management buy-ins 是属于外部管理层收购。
C 选项不正确，经营效率低的公司更有吸引力，因为收购方更有可能通过改善公司经营状况，提高收购标的价值。

5. Which of the following is least likely an exit strategy for private equity?
A. Leveraged buyout.
B. Recapitalization.
C. Trade sale.

Answer: A

Leverage buyout 属于 PE 的一种投资策略，并不是 PE 的一种退出方式。
B 正确，PE 可以行使其决策权，促使上市公司通过发行债券或者通过贷款，增加流动资金，再通过分红的形式支付 PE 所得收益并偿还其本金。
C 正确，Trade sale 指通过把 PE 持有的目标公司的股权卖给同行业竞争对手或者其他战略投资者，实现 PE 的退出。

6. If a futures contract buyer has only few benefits on holding physical commodity, which of the following statements is most accurate?
A. The convenience yield is high.
B. The futures buyer must bear high storage cost immediately.
C. The futures market is in contango.

Answer: C

A 不正确，持有大宗商品现货带来的收益叫 convenience yield，持有现货收益越小，convenience yield 越小。
B 不正确，期货合约在期货到期日才进行交割，期货买方在交割日前都不会产生储存费用。
C 正确，由于 Futures price ≈ Spot price (1 + r) + Storage costs – Convenience yield，convenience yield 越小，Spot price<Futures price 的可能性越大，因此 Future market 越有可能处于 contango状态。

7. Golden is a hedge fund. The value of the portfolio at the beginning of this year is $82.9 million. The value of the portfolio increases to $96.6 million at the end of this year. The management fee is 2% and is calculated using beginning-of-the-year value. The incentive fee is 20%. The incentive fee is calculated net of management fee. Total fees paid by hedge fund investors this year are closest to:
A. $4.34 million
B. $4.07 million
C. $4.40 million

Answer: B

计算管理费用：Management fee=82.9*2%=$1.658 million
计算激励费用：Incentive fee=(96.6-1.658-82.9)*20%=$2.41 million
计算总费用：Total fee=1.658+2.41=$4.07 million

8. Which of the following is least likely a characteristic of alternative investment?

A. Managers have flexibility to use derivative and leverage.

B. Alternative investment cannot invest in traditional assets.

C. Alternative investment has unique legal and tax consideration.

Answer: B

B 选项错误，另类投资可以通过衍生品、杠杆或者做空等交易机制，投资股票、债券、货币等传统投资工具。
A 和 C 选项正确，另类投资经理可以自由运用各种交易机制进行投资。另类投资产品拥有特殊的法规及税收规定。

9. An investor is working on researches about fund of funds. He has made several conclusions on the benefits of fund of funds:

- Fund of funds helps smaller investors access to hedge funds.
- Investors can enjoy expertise in due diligence on hedge funds.
- Investors can enjoy diversification from investing in fund of funds.
- The fee structure of a fund of funds is simpler than a single hedge fund.

How many conclusions are most likely correct?

A. Two

B. Three

C. Four

Answer: B

Fund of funds 可以帮助一些小型投资者投资对冲基金，可以享受到 fund of funds 基金经理对其投资的对冲基金的尽职调查以及对对冲基金的多样化投资。但是，fund of funds 有一个缺点，就是会有两层的费用，因此它的费用结构比单独投资一个对冲基金要更加复杂。因此，只有前三个结论是正确的，最后一个结论是错误的。

10. The following information is available about a hedge fund:

Initial fund assets	$800 million
Fund assets at the end of the period (before fees)	$1000 million
Management fee based on assets under management	2 %
Incentive fee based on the return	15 %
Hard hurdle rate	8 %

If the management fees are calculated using beginning-of-period valuation. Incentive fees are calculated net of management fees. The net-of-fees return of the investor is closest to:

A. 20%

B. 18%

C. 16%

Answer: A

对冲基金的净回报计算和总费用计算是一个重要的考点！净回报等于期末基金价值减去期初值，再减去总费用后，除以初始投资额计算出的回报。这里有几点要注意：

- 管理费是按期初还是期末值计算；
- 激励费是 net of management fees 还是 independent；
- 门槛是 soft hurdle 还是 hard hurdle，门槛用期初值计算，注意，没写 soft 一律认为是 hard。

这道题解题步骤如下：
管理费 = 2% x 800 = $16 million
期末值-期初值 = 1000-800=$200 million
Hard hurdle = 800 x 8% = $64 million
激励费 = (200-16-64) x 20% = $24 million
总费用 = 24+16 = $40 million
净回报 Net return = (1000-800-40)/800 = 20%