Principles of Business

Fall 2015

## Module 1 Exam Solution - Cover Sheet

## Instructions

- This is an exam. Do not talk.
- Your books, notes, and electronic devices must be put completely away, out of sight.
- Do not open the exam until you are told to begin.
- Once you leave the exam room, you may not return. No bathroom or other breaks during the exam
- Turn in your Scantron in the folder for your Discussion Section number.
- Keep the questions when you leave.
- If you do not have a Scantron form/pencil, take your seat, raise your hand and wait with your $\$ 10$
- Any contravention of these instructions will lead to your ejection from the exam with zero points
- While you are waiting to begin, enter the following information on your Scantron:

| LINE: | INFO TO ENTER: | EXPLANATION: |
| :--- | :--- | :--- |
| Name: | LAST, First, Middle | Make sure your family name comes first |
| Subject: | $1234-5678$ | Your Student ID Number |
| Test No.: | See question 38 | This is your test version (ABCD) and unique ID number (0 to 9999) |
| Date: | 1 | This is the module number for this exam |
| Hour (Period): | $101,102,103$, etc. | This is your Discussion Section number - see below |


| Section | Day / Time | GSI Name |
| :--- | :--- | :--- |
| 101 | Tu 8-9A | Josie Sullivan |
| 102 | Tu 9-10A | Josie Sullivan |
| 103 | Tu 10-11A | Andrea Soto |
| 104 | Tu 11-12P | Andrea Soto |
| 105 | Tu 12-1P | Claire Bianchi |
| 106 | W 8-9A | Steven Truong |
| 107 | W 10-11A | Claire Bianchi |
| 108 | W 11-12P | Elaine Zhuang |
| 109 | W 12-1P | Elaine Zhuang |
| 110 | W 1-2P | Rajat Gulati |
| 111 | Th 8-9A | Chris Dulgarian |
| 112 | Th 9-10A | Mitya Voloshchuk |
| 113 | Th 10-11A | Mitya Voloshchuk |
| 114 | Th 11-12P | Vijay Bhatnagar |
| 115 | Th 12-1P | Vijay Bhatnagar |
| 116 | Th 1-2P | Chris Dulgarian |
| 117 | Tu 1-2P | Steven Truong |
| 118 | Tu 2-3P | Akshay Yadav |
| 119 | W 2-3P | Rajat Gulati |
| 120 | Th 2-3P | Akshay Yadav |

## UGBA 10 - Principles of Business

MODULE 1 EXAM - Fall 2015 9/26/2015
FINANCE \& ACCOUNTING
Instructor: Professor Briginshaw

1) Alonzo is an experienced CPA who has been hired for a professional position at PWC to advise corporations on mergers. Which of the following terms BEST describes Jose's capacity as an accountant?
A) noncertified public accountant
B) private accountant
C) forensic accountant
D) accountant providing management advisory services
E) management accountant

Answer: D
See page 221, paragraph 2 of custom textbook
2) The Federal Reserve has a Dual Mandate as discussed in lecture, meaning it has two main goals in conducting monetary policy. Which one of the following is not part of the "Fed's" dual mandate?
a) to limit inflation
b) to increase stock prices
c) to minimize unemployment
d) All of the above are included in the Fed's dual mandate

Answer: B
Explanation: The Federal Reserve's dual mandate was determined by Congress in 1977. It is to promote maximum sustainable employment and price stability. Price stability is usually interpreted as low and stable inflation. The dual mandate was shown in lecture on the overhead projector.
3) Which of the following statements is TRUE?
A) As common practice, a prospective equity investor in a firm receives information from the firm's financial accounting system.
B) As common practice, a prospective equity investor in a firm receives information from the firm's managerial accounting system.
C) As common practice, a prospective equity investor in a firm receives information from both the firm's managerial accounting system and its financial accounting system.
D) As common practice, a prospective equity investor in a firm receives information from the firm's revenue accounting system.
E) As common practice, a prospective equity investor in a firm does not receive any information from the firm's accounting system.
Answer: A
Explanation: A) The financial accounting system is concerned with external users.
4) Suppose General Motors owns an automobile plant in Brazil. How much of the total value of goods and services produced by the plant will be included in US GNP?
a) All of the value of goods and services produced
b) The profits earned by the plant
c) The salaries paid to the Brazilian workforce
d) None of the value

Answer: B.
Explanation: Inclusion in GNP depends on ownership of the factors - the US ownership of GM leads to the product of the capital factor (profit) to be included. See page 21 of custom textbook.

## Contribution Margin

Use the following information to answer the next 2 questions:
Mark's Pizza pays $\$ 900$ fixed rent per month and each pizza costs $\$ 4$ in ingredients and hourly paid labor. Pizzas sell for $\$ 7$ per pizza.
5) What is the break even number of pizzas for Mark's pizza?
a) 225 pizzas
b) 300 pizzas
c) 667 pizzas
d) 900 pizzas

Answer: B
Calculation: Unit CM $=\$ 7-\$ 4=\$ 3$
Q_breakeven $=\mathrm{F} /$ Unit $\mathrm{CM}=\$ 900 / \$ 3=300$ units
6) If Mark's sells 400 pizzas, what is the total contribution margin and what is the profit (ignore taxes)?

Contribution margin Profit
a) $\$ 2100 \quad \$ 1200$
b) $\$ 1200 \quad \$ 700$
c) $\$ 1600 \quad \$ 300$
d) $\$ 1200 \quad \$ 300$

Answer: d
Total_CM $=\$ 3 \times 400=\$ 1200$
Profit $=$ volume $\times \mathrm{CMPU}-$ fixed_cost $=$ Total_CM - fixed_cost $=\$ 1200-900=\$ 300$
7) Which environment is NOT an important dimension of a business organization's external environment?
A) the political-legal environment
B) the sociocultural environment
C) the technological environment
D) the corporate cultural environment
E) the global business environment

Answer: D
Explanation: D) The external environment consists of everything outside an organization's
boundaries that might affect it. The corporate cultural environment is internal to the organization.
8) Which of the following exists when an industry or market has only one producer?
A) competition
B) oligopoly
C) monopoly
D) communism
E) socialism

Answer: C
Explanation: C) A monopoly is a market or industry in which there is only one producer that supplies a certain product. Monopolies in the United States economy are either discouraged or regulated so that prices are not too high.
9) Bonds are an example of a fixed income security. The concept of the inverse relation between bond prices and market interest rates means that...
a) A rise in market interest rates leads to a rise in bond prices
b) The fluctuations in bond prices limit the ability of bonds to provide a fixed income to people who hold the bonds to maturity
c) A rise in market interest rates leads to a fall in bond prices
d) A fall in bond prices is indicative of a fall in market interest rates

Answer: c
Explanation: A rise in interest rates make existing fixed income securities less valuable, as better rates are now available.
10) A customer has a bond fund which returns $2 \%$ before fees, and the fees/charges for the fund are $1.5 \%$ of the investment per year. In 2009, the customer invests $\$ 10,000$ in the fund. After three years, the customer's funds would be closest to:-
a) $\$ 9550$
b) $\$ 9700$
c) $\$ 9850$
d) $\$ 10,150$
answer: d
Explanation: 0.5\% or about $\$ 50$ gained per year
11) In the field of personal financial planning, asset allocation refers to an investor's decision on what proportion of their total portfolio (funds) is invested in different alternatives, for example stocks vs bonds. In saving for retirement, which of the following asset allocation guidelines are true for a 60 year old investor as compared to a 30 year old investor?
a) The 60 year old investor should hold a higher proportion of her total portfolio in stocks than the 30 year old
b) The 60 year old investor should hold a lower \$ value of bonds in her portfolio than the 30 year old
c) The 60 year old investor should have a lower total $\$$ value total portfolio than the 30 year old
d) The 60 year old investor should hold a higher proportion of her total portfolio in bonds than the 30 year old
Answer: D
Explanation: As an investor approaches retirement, they should shift from equities into less risky securities, as they have less time to recover from the damage to their portfolio caused by an equity market fall. See lecture 7 notes and page 311.
12) Jim's Specialty Cheese is a cheese shop. In January, Jim's finds some excellent cheese called Manchego from Spain. They buy $\$ 800$ worth on credit, taking delivery in January, to pay Manchego in 30 days (i.e. they will pay the supplier in February). In February they start to sell the cheese, and deliver half of the cheese to their favorite customers for a $100 \%$ markup in February. The customers will pay in March. What is the Revenue, Income and Cash flow for Jim's Specialty Cheese in February?

|  | Revenue | Income | Cash flow |
| :--- | :--- | :--- | :--- |
| a) | 800 | 400 | 800 |
| b) | 0 | 800 | 0 |
| c) | 400 | 400 | 400 |
| d) | 800 | 400 | -800 |

Answer: d
Cost of Goods Sold $=50 \% \times \$ 800=\$ 400$
Revenue $=\$ 400+(\$ 400 \times 100 \%)=\$ 800$
Income $=\$ 800-\$ 400=\$ 400$
Cash flow $=-\$ 800$ (cash from customers is not received until March, but supplier must be paid in February)
13) All of the following are Functions of the Fed except:
a) The Government's Bank
b) The Consumer's Bank
c) Check Clearing
d) Controlling the Money Supply

Answer: B
Explanation: The Fed is described as the Government's Bank, and the Banker's Bank, but it does not deal with consumers.
14) The income statement contains all of the following except:
a) Revenues
b) Expenses
c) Assets
d) Calculation of net income

Answer: C
Explanation: Assets are shown on the balance sheet
15) Which of the following is the best description of current assets in a company's balance sheet?
a) All assets the company has right now, i.e. currently
b) Assets the company expects to use or convert to cash within one month or less
c) Assets the company expects to use or convert into cash within one year
d) Assets such as property, equipment and goodwill

Answer: C
Explanation: See page 226
16) A person invests $\$ 200$ for 2 years while the prevailing interest rate is $10 \%$. The future value of the investment is closest to....
a) $\$ 250$
b) $\$ 242$
c) $\$ 200$
d) $\quad \$ 165$

Answer: b
Calculation: $\mathrm{FV}=\mathrm{PV} \times(1+\mathrm{r})^{\mathrm{t}}=200 \times 1.1^{2}=\$ 242$
17) Assume that $20 \%$ reserve requirement has been imposed on banks. A client of Bank of America discovers a $\$ 20$ bill that has been lost for 80 years and therefore was not included in the money supply statistics. He deposits the $\$ 20$ in a checking account, which the bank relends to a new client (minus the reserve requirement) in cash. What is the effect on the M-1 money supply?
a) There is no change in the M-1 Money supply
b) The M-1 Money supply increases by $\$ 20$
c) The M-1 Money supply increases by $\$ 24$
d) The M-1 Money supply increases by $\$ 36$

Answer: D
Explanation: M-1 increases by $\$ 20$ (bank balance) $+\left(\$ 20^{*} .8\right)($ cash in hands of borrower $)=\$ 36$
18) According to the HBS reading on "Financial Statement and Ratio Analysis", what is the "starting point"?
a) Revenues
b) Net income
c) Asset Turnover
d) Return on Equity

Answer: D
Reference: HBS reading and tophat question
19) According to the "Welcome to the Everything Boom..." article
a) There are a wide range of unambiguously cheap assets
b) The high valuations of stocks are even more extreme than those seen in early 2000
c) The boom has been confined to emerging market assets
d) The high valuations apply across a greater breadth of assets than in 2000

Answer: D
Explanation: Implicit in the title of the article, specifically covered in paragraph 12 NOTE: READING DELETED
20) A company is about to start trading. The company's owners invested $\$ 10,000$ total into company equity, but also secured bank funding for the company so that its total assets stand at $\$ 17,000$. What is the amount of the liabilities of this company?
A) $\$ 3,000$
B) $\$ 7,000$
C) $\$ 13,500$
D) $\$ 27,000$

Answer: B
Calculation: The accounting equation states that $\mathrm{A}=\mathrm{L}+\mathrm{SE}=>\mathrm{L}=\mathrm{A}-\mathrm{SE}=\$ 17,000-\$ 10,000$
21) Fitley Inc recorded net income of $\$ 5000$ in 2014 . However, stockholders equity increased by only $\$ 2000$. If there were no new investments in the equity, what must be true about dividends?
a) no dividends were paid
b) $\$ 2000$ dividends were paid
c) $\$ 3000$ dividends were paid
d) $\$ 5000$ dividends were paid

Answer: C
Explanation: $\$ 2000$ of the income was retained, which means that $\$ 3000$ must have been paid as dividends
22) The focus company Amazon.com, when considered within the framework of the DuPont Formula, is characterized by...
a) High Return on Equity
b) Low Revenue Growth
c) Low Asset Turnover
d) Low Net Profit Margin

Answer: D
Explanation: Discussed in lecture 5 and in the review lecture.
23) The FDIC insures bank deposits up to $\$ 250,000$ per depositor, per insured bank. Lady

Margaret Hatt is a wealthy individual who has $\$ 250,000$ in a checking account at Wells Fargo and $\$ 500,000$ in a checking account at Chase Bank. She also has a savings account at Chase Bank with $\$ 200,000$ in it. What total dollar amount is insured by the FDIC?
a) $\quad \$ 250,000$
b) $\$ 500,000$
c) $\$ 700,000$
d) $\$ 750,000$

Answer: B
Explanation: The FDIC adds together all of the accounts that Lady Hatt has at each bank, and insures the first $\$ 0.25 \mathrm{~m}$ at each bank. Thus, the full $\$ 250 \mathrm{~K}$ at Wells is insured, but only the first $\$ 250 \mathrm{~K}$ at Chase.
24) Which of the following best characterizes a Defined Benefit pension scheme?
a) A pension scheme where employees receive a monthly payment in retirement based on their years of service to the company, funded by the company
b) A pension scheme where employees invest their own money and the company match to fund their retirement
c) A type of individual retirement account
d) A pension scheme which has a beneficial "cash out" feature for young employees Answer: A
Explanation: Defined benefit schemes pay a monthly pension in retirement, and are low risk and attractive for employees. See lecture 7.
25) In 2002 the rate of exchange for one euro was $\$ 0.87$ and in 2011 it was $\$ 1.45$. Which group of people would have most benefited from this change in exchange rates?
a) French vacationers visiting the US
b) French innkeepers
c) US vacationers visiting France
d) French exporters selling goods into the US

Answer: A
Explanation: The Euro became much more valuable so French holidaymakers could convert their holiday money into more dollars to pay for hotels, attractions and meals in dollars. US vacationers in France suffered the reverse effect. French exporters' product becomes much more expensive for people spending dollars. The effect on French innkeepers is less marked, but they have more difficulty attracting US and other non-Eurozone tourists, so they are somewhat disadvantaged. See page 278.
26) Which of the following is NOT part of the M-1 money supply?
A) money market funds
B) currency amount of written checks
C) currency at hand
D) currency in checking accounts
E) currency value of demand deposits

Answer: A
Explanation: M-1 includes cash, checks and demand deposits. Checking accounts are a type of demand deposit. Money market funds are customarily available overnight. See page 262.

## Financial Statement and ratio analysis:

Use the following information on Alfred Incorporated to answer the next three questions

| Average stockholders' equity | $\$ 5,000$ | Net income | $\$ 4,000$ |
| :--- | :--- | :--- | :--- |
| Average total assets | $\$ 20,000$ | Sales | $\$ 40,000$ |
| Current assets | $\$ 8,000$ | Total liabilities | $\$ 15,000$ |

Current liabilities $\$ 2,000$
27) What is the Profit margin for Alfred Inc?
a) 2
b) $80 \%$
c) $10 \%$
d) 4

Answer: c
Explanation: $\mathrm{PM}=$ net income $/$ sales $=4000 / 40000=10 \%$, see HBS reading page 2
28) What is the Financial Leverage for Alfred Inc?
a) 2
b) $80 \%$
c) $10 \%$
d) 4

Answer: d
Explanation: Financial Leverage $=$ Assets/Equity $=20000 / 5000=4$, see HBS reading page 4
29) What is the Current Ratio of Alfred Inc?
a) 2
b) $80 \%$
c) $10 \%$
d) 4

Answer: d
Explanation: Current ratio $=$ Current Assets/Current Liabilities $=8000 / 2000=4$. See Lecture 4, HBS reading page 5 and custom book page 233
30) How do companies become public corporations ?
a) By means of an Initial Public Offering (IPO)
b) By issuing Mortgage Backed Securities (MBS)
c) By issuing common stock to private equity investors
d) By joining the Dow Jones Industrial Average (DJIA)

Answer: a
Explanation: Custom book page 317 and Lecture 2
31) A conservative investor seeking to limit risk would be most likely to invest in...
a) Lower quality common stocks
b) Corporate Bonds with low credit ratings
c) International stocks in developing countries
d) Short Term US Treasury Bills

Answer: d
Explanation: Custom book page 310 and Lecture 7
32) One psychological bias which can make it difficult for people to invest effectively is termed loss aversion. Which of the following statements best describes loss aversion, in this context?
a) People do not like to lose, in the same way as they do like to win
b) People do not like to lose, especially late in life
c) People take comparatively more pleasure from gains on their investments, compared to their displeasure with losses
d) People take comparatively less pleasure from gains on their investments, compared to their displeasure with losses
Answer: D
Explanation: Investors' negative and asymmetric reaction to losses often causes investors to sell "at the bottom" of the market. A damaging and hard to resist bias. See Lecture 7.
33) Hadwell Inc has a current stock price of $\$ 40$, annual earnings per share of $\$ 4$ and annual dividends per share of $\$ 2$. What is Hadwell's annual dividend yield?
a) $5 \%$
b) $10 \%$
c) $15 \%$
d) $20 \%$

Answer: A
Calculation: Dividend yield $=$ Annual dividend payment/Current stock price $=2 / 40=5 \%$. See page 309 and Lecture 2.

Use the following text and chart to answer the next two questions. The chart's data labels refer to January 1st of the stated year.

## This Was to Be the Year of Bigger Wage Gains. It's Not.

September 3, 2015
By Neil Irwin

The unemployment rate is low by any historical standard at 5.1 percent. Businesses are complaining of worker shortages in industries including health care, construction and trucking. Household-name companies like Walmart and McDonald's have announced increases to their pay for low-wage workers.

Add those together, and it would seem to point to 2015 as being the year American workers start seeing substantially larger paychecks. The only problem: There is no real evidence in the economic data that this is happening.

Average hourly earnings for private-sector workers, percent change over year earlier


Source: Bureau of Labor Statistics
34) The writer's argument in the text shown above can best be summed up as...
a) A low unemployment rate should not be expected to lead to worker shortages
b) Because neither Walmart or McDonalds is involved in the healthcare, construction or trucking industries, they should not have raised their pay to low wage workers
c) The low unemployment rate and worker shortages haven't led to substantially larger wages, according to the economic data
d) The underlying unemployment rate is actually greater than $5.1 \%$

Answer: C
35) According to the chart of wage inflation shown above, all of the following are true about average hourly earnings except...
a) Average hourly earnings fell during 2009
b) Average hourly earnings increased by about $3.25 \%$ per year up to about end 2008
c) Average hourly earnings increased by about 2\% per year between 2011 and 2015
d) The highest absolute level of average hourly earnings would be that corresponding to the extreme right of the chart
Answer: A
Explanation: The chart is a graph of wage inflation so the declining values in 2009 show only that the rate of increase of wages was trending lower in 2009. Only if inflation falls below zero do absolute wages decrease.
36) Which of the following is a use of cash in the Capsim finance screen?
a) Retiring Dividends
b) Promo Expenditure
c) Issuing Stock
d) Retiring Stock

ANSWER: D
Explanation: Retiring stock or bonds are both uses of cash on the Finance screen - the company expends cash to cancel its stock or its bonds. Promo expenditure is contained on the marketing screen. Issuing stock is a source of cash. There is no such thing as "retiring dividends".
37. I have carefully checked my Scantron. My Section number is correctly shown and I have checked that my name is written in the Registrar's form, last name first.
a. Yes
b. No
38. This is version "A": fill in the "A" bubble for this question and write the letter and unique exam identifier "A5555" in the "TEST NO." box of your Scantron.

IMPORTANT NOTE: IN THE EVENT YOU DO NOT WRITE YOUR UNIQUE IDENTIFIER (A5555) ON THE SCANTRON, IF YOUR IDENTIFIER DOES NOT MATCH THAT SHOWN ABOVE OR IF IT HAS BEEN USED BY ANOTHER STUDENT, YOU WILL AUTOMATICALLY SCORE ZERO ON THIS TEST.

