**Admission Test 2016**

**Math Section (Total Points 100) Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. What is the slope (in any equation of the form y=ax+b, a is called a slope) of the line tangent to the curve y=2x2+3, at the point x=2
2. 2
3. 4
4. 5
5. 8
6. 11
7. Armen, Aram, Gor and Vardan wear the following types of shoes: black walking shoes, white tennis shoes, blue sandals and black sandals. Aram and Gor wear the same color. Armen and Gor wear the same type of shoes. Which of the boys wears the white tennis shoes?

A. Armen

B. Aram

C. Gor

D. Vardan

E. none of the above

1. There are 4 people at a meeting. If each person shakes hands with each of the other once, how many handshakes are exchanged?
2. 4
3. 6
4. 12
5. 16
6. 24
7. Which of the following statements is NOT true about a logarithmic function of the form y=log5x?
8. X can attain any values
9. It is increasing
10. Y can attain any values
11. Passes through the point (1,0)
12. It never touches y axis
13. In a right rectangular triangle (Ñ³í³ë³ñ ¿ç»ñáí), what are the values of acute angles?

A. 30° and 60°

B. 20° and 70°

C. 45° and 45°

D. 60° and 60°

E. 30° and 30°

1. In a classroom there are 4 pupils and 4 chairs. In how many different orders can the pupils seat on these chairs?

A. 4

B. 8

C. 16

D. 24

 E. 256

1. What is the value of 00?

A. doesn’t exist

B. 0

C. 1

D. ∞

E. none of the above

1. Suppose the price of some toy was decreased by 25%, after which it costs $ 30. What was the original price of the toy?
2. $ 35
3. $ 37,5
4. $ 40
5. $ 42,5
6. $ 45
7. Two cars simultaneously start moving from the opposite points, one is with the constant speed of 40 km/h, and the other one with the speed of 60 km/h, the total distance between cars from their original points is 120 km. After how much time will they meet?

A. 40 minutes

B. 72 minutes

C. 80 minutes

D. 100 minutes

E. 2 hours

1. In a given arithmetic sequence (Ãí³µ³Ý³Ï³Ý åñá·ñ»ëÇ³) what is the 15th term?

 1,5,9, ………

1. 57
2. 61
3. 65
4. 69
5. 73

**Economics Section (Total Points 100) Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| Q (in units) | AFC (in dollars) | AVC (in dollars) | MC (in dollars) |
| 0 | ----- | ----- | ----- |
| 2 | 2.5 | 18 | 10 |
| 4 | 1.25 | 14 | 14 |
| 6 | 0.83 | 18 | 42 |
| 8 | 0.63 | 30 | 94 |
| 10 | 0.50 | 50 | 170 |
|  |  |  |  |

1. The table above shows the cost schedules of a perfectly competitive firm. If the market price of output is $50, the firm will produce \_\_\_\_\_ units and earn a profit of \_\_\_\_\_ .
2. 6; $187.02
3. 6; $48.00
4. 8; $154.96
5. 8; $245.04
6. 10; $0.00

Hint: Average Total costs (ATC) = Average Fixed Costs (AFC) + Average Variable Costs (AVC.)

1. Suppose the graphs below show the airline market. A general strike (գործադուլ) by American Airline pilots will probably cause changes in the market. Which panel shows these changes?
	1. Panel 1
	2. Panel 2
	3. Panel 3
	4. Panel 4
	5. all of them
2. Other things remaining the same, as Armenian imports from the U.S. increase, the quantity of
	1. U.S. dollars supplied increases.
	2. U.S. dollars demanded increases.
	3. AMD supplied decreases.
	4. U.S. dollars demanded decreases.
	5. none of the above.
3. If supply and demand both shift to the right at the same time, what can we say about equilibrium price and quantity?
4. both will increase
5. price will increase, quantity may increase or decrease
6. both will decrease
7. quantity will increase, price may increase or decrease
8. price will decrease, and quantity will increase
9. If the supply of money increases, what happens in the money market?
	1. The interest rate falls
	2. Transaction demand for money falls.
	3. Transaction demand for money rises.
	4. The interest rate rises
	5. The interest rate does not change
10. The curve that shows the relationship between the price of a good and the quantity that consumers are willing to purchase at each price is the
	1. supply curve.
	2. demand curve.
	3. production possibilities curve.
	4. consumption curve.
11. What are two goods that are bought and used together?
	1. A. efficiency
	2. B. complementary goods
	3. C. monopolistic competition
	4. D. market system
12. In some country, cigarettes are forbidden, so people trade cigarettes in a black market. The cigarette demand is Qd= 12 − P, and the cigarette supply is QS = 2P. Please calculate the price and the quantity of cigarettes demanded. (show your calculations).
13. During the current quarter, a firm produces consumer goods and adds some of those goods to its inventory rather than selling them. The value of the goods added to inventory is

|  |  |
| --- | --- |
| a. | not included in the current quarter GDP. |
| b. | included in the current quarter GDP as investment. |
| c. | included in the current quarter GDP as consumption. |
| d. | included in the current quarter GDP as a statistical discrepancy. |

1. Consider the graph below. The shift of this diagram may be best explained as:

a. The price of Pepsi rose.

b. The price of Coca-Cola rose.

c. Total income for the consumer fell.

d. The price of Pepsi fell.



1. Please consider the bar graph given below.
The graph shows the foreign exchange reserves of a country (in million US $) from 1991 - 1992 to 1998 - 1999.

Foreign Exchange Reserves of a Country. (in million US $):



 For which year, the percent increase of foreign exchange reserves over the previous year, is the highest?

1. 1992-93
2. 1993-94
3. 1994-95
4. 1996-97
5. In the economy of a country in 2015, consumption was $6000, exports were $1000, GDP was $10,000, government purchases were $2000, and imports were $600. What was the country’s investment in 2015?

|  |  |
| --- | --- |
| a. | $1400 |
| b. | $1600 |
| c. | $2400 |
| d. | $3600 |

Questions 13 and 14 are based on the problem given below:

 The firm’s production function is f(x) = X2, where X is the amount of input and f(x) is the number of output produced.

1. Does the firm have increasing, constant, or decreasing returns to scale? (Explain your answer)
2. How many units of input will it take to produce 361 units of output?
3. The cost function of a company is given by the equation TC=150+50q, where TC is the total cost and q is the total quantity of output. What is the company’s fixed cost?

**English Section (Total Points 100) Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## Multiple Choice

**Circle** the answer that is best. Be aware that more than one answer might work. You must choose the one that is most logical and meaningful.

### Grammar and Punctuation (40 points, 2 points each)

1. If I have the money\_\_ I will lend it to you.
	1. ,
	2. Leave blank
	3. .
	4. ;
	5. , however,
2. I went to the concert\_\_\_ he went home to sleep.
	1. ; and
	2. , and
	3. And
	4. ,
	5. yet
3. He was having a good time \_\_\_\_\_ didn’t want to leave.
	1. , and
	2. ;
	3. Which
	4. , which
	5. And
4. The farmer could get a loan to buy a tractor for his \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ didn’t want to because he knew he wouldn’t be able to afford the maintenance costs.
	1. farm, however, he
	2. farm; however, he
	3. farm however, he
	4. farm, however he
5. I went to the store and got all of the things on the list\_\_\_\_ milk, bread, coffee, eggs, and flour.
	1. ;
	2. ,
	3. .
	4. :
	5. Etc.
6. The \_\_\_\_\_\_\_\_ books were all still in the classroom. The teacher knew that none of them were going to do their homework over the weekend.
	1. Students
	2. Student’s
	3. Student
	4. Students’
	5. Student of
7. There was so much rain that the \_\_\_\_\_\_\_\_ banks overflowed and flooded the city that it ran through.
	1. River
	2. Rivers’
	3. River of
	4. River’s
	5. Riveri’s
8. I told you that is \_\_\_\_\_\_\_\_ that bit me. I am sure it is that one.
	1. Dog
	2. The dog
	3. A dog
	4. Which dog
	5. all of the dogs
9. If you go to \_\_\_\_\_\_\_\_\_\_\_\_\_\_, please get me \_\_\_\_\_\_\_\_\_\_\_\_ that I always eat.
	1. Store/ cereal
	2. The store/ cereal
	3. The store/ the cereal
	4. Store/ the cereal
10. I gave her \_\_\_\_\_\_\_ report, not realizing that it was not \_\_\_\_\_\_ one she asked for in \_\_\_\_\_ email.
	1. Leave blank/ a/ her
	2. A/ the/ the
	3. A/ the/ her
	4. The/ a/ the
	5. a/ a/ leave blank
11. He gave \_\_\_ the report \_\_\_ his boss just before the deadline.
	1. Leave blank/ leave blank
	2. For/ on
	3. Leave blank/ on
	4. It/ leave blank
	5. Leave blank/ to
	6. A store/ cereal
12. While Christmas is always \_\_\_\_ December 25th in America, Easter is sometime \_\_\_\_ the spring and not always \_\_\_\_ the same day.
	1. At/ around/ in
	2. In/ on/ at
	3. On/ in/ on
	4. Around/ in/ at
	5. On/ around/ in
13. On my way \_\_\_\_ the airport, I stopped \_\_\_\_ the store to buy some snacks to eat \_\_\_\_ the plane.
	1. From/ in/ at
	2. To/ in/ in
	3. To/ at/ on
	4. From/ to/ on
	5. From/ by/ for
14. If I pass this test, I \_\_\_\_\_\_\_\_\_ the interview.
	1. have to do
	2. will have done
	3. will doing
	4. can’t do
	5. doing
15. I \_\_\_\_ too many new people there and \_\_\_\_\_\_\_ remember their names.
	1. Meet/ could
	2. Met/ could not
	3. Met/ should
	4. Meet/ could not
	5. Met/ could

1. The books \_\_\_\_\_\_\_\_ not where you \_\_\_\_\_\_\_\_ they would be.
	1. Was/ told
	2. Were/ say
	3. Are/ spoke
	4. Were told
	5. Were/ said
2. He was \_\_\_\_\_\_\_\_\_\_ the street when the bus \_\_\_\_\_\_\_\_\_\_\_ him.
	1. Crossed/ was hitting
	2. Crossing/ hitting
	3. Across/ to hit
	4. Crossing/ hit
	5. To cross/ hitting
3. They \_\_\_\_\_\_\_\_\_\_ to pass the exam, but were also \_\_\_\_\_\_\_\_\_ about the interview.
	1. Were excited very/ incredibly nervous
	2. Were very excited/ nervous incredibly
	3. Were very excited/ incredibly nervous
	4. Very were excited/ nervous incredibly
	5. Were very excited/ nervous incredibly
4. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was blocking the \_\_\_\_\_\_\_\_\_\_\_\_ to the yard.
	1. black large car/ only entrance
	2. car large and black/ entrance only
	3. large car black/ only entrance
	4. large black car/ only entrance
	5. large black car/ entrance only
5. He is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to Tbilisi \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the concert.
	1. To go/ for seeing
	2. Going/ to see
	3. To going/ seeing
	4. Going/ for to see
	5. To go/ for see

## Vocabulary (30 points, 2 points each)

1. He didn’t like the idea of having to walk all the way there, but the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was missing his flight, which was much worse.
	1. Option
	2. Point
	3. Alternative
	4. Replacement
	5. Alternate
2. I can’t force you to get good grades, but I can \_\_\_\_\_\_\_\_\_\_ you to work hard and do the best you can.
	1. Encourage
	2. Enrage
	3. Insult
	4. Regulate
	5. Dissuade
3. Your active \_\_\_\_\_\_\_\_\_\_\_\_ in class is necessary for you to get a good grade.
	1. Solicitation
	2. Organization
	3. Participation
	4. Judgement
	5. Purpose
4. The application \_\_\_\_\_\_\_\_\_\_\_\_\_ was May 2nd.
	1. Due
	2. Completion
	3. Deadline
	4. Process
	5. Requirement
5. The \_\_\_\_\_\_\_\_\_\_\_\_ of the European Union has resulted in the organization having 28 member states.
	1. Swelling
	2. Expansion
	3. Recession
	4. Retreat
	5. Confusion
6. Owning a car means that you have to spend money \_\_\_\_\_\_\_\_\_\_\_\_ it. You need to do things like change the oil, fix the breaks and buy new tires.
	1. Replacing
	2. Depleting
	3. Maintaining
	4. Selling
	5. Letting
7. It is important to \_\_\_\_\_\_\_\_\_\_\_\_\_\_ problems that you might face when starting a business. You need to think ahead and have a plan for how to deal with difficulties before they happen.
	1. Ignore
	2. Anticipate
	3. Aggregate
	4. Maintain
	5. Participate
8. The enemy was being beaten so badly that they started to \_\_\_\_\_\_\_\_\_\_.
	1. Expand
	2. Replace
	3. Retreat
	4. Recover
	5. Participate
9. She was able to give such a good \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the person we were looking for. When I saw him, I recognized him right away.
	1. Prescription
	2. Confusion
	3. Requirement
	4. Detail
	5. Description
10. The definition of extreme \_\_\_\_\_\_\_\_\_\_\_\_ is living off of less than $1.25 a day.
	1. Sadness
	2. Expansion
	3. Poverty
	4. Maintenance
	5. Occupation
11. A better camera was the main \_\_\_\_\_\_\_\_\_\_\_\_\_ of the new phone. All of the ads talked about it, and the company thought that is what would convince people to buy it.
	1. Feature
	2. Problem
	3. Description
	4. Anticipation
	5. Disappointment
12. The new chair was very \_\_\_\_\_\_\_\_\_\_\_\_ and he didn’t want to get out of it.
	1. Comforting
	2. Convenient
	3. Comfortable
	4. Disturbing
	5. Disturbed
13. The problem was that the plants didn’t get enough water. The solution was to build a(n) \_\_\_\_\_\_\_\_\_\_\_ system to bring water to the plants.
	1. Irrigation
	2. River
	3. Instigation
	4. Hydroelectric
	5. Maintenance
14. She insisted that it was a(n)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. She claimed that she didn’t do it on purpose.
	1. Tragedy
	2. Feature
	3. Retreat
	4. Expansion
	5. Accident
15. It wasn’t his \_\_\_\_\_\_\_\_\_\_\_ to take care of the car. Someone else was supposed to do that.
	1. Issue
	2. Process
	3. Responsibility
	4. Maintenance
	5. Alternative

## Reading comprehension (15 points, 3 points each)

**Americans are falling in love with a British sandwich chain. (From CNN.com)**

The British sandwich chain Pret reported record sales on Tuesday, thanks to a boom in its American business. "The highlights were a strong performance in the U.S. -- our newly opened Penn Station shop has the highest sales per square foot of any Pret in the world," said Clive Schlee, Pret's CEO.

The U.S. was Pret's fastest growing market in 2015. Its like for like sales, which exclude new shops, grew 13.8% in the U.S. last year, the company said in a statement. Pret said demand for salads and breakfast items, including its organic coffee, was driving the increase.

The company's U.S. operation has grown into a $200 million business since it launched its first sandwich shop in New York 15 years ago.

Schlee said the company had to adapt to succeed in the U.S., like allowing American customers to customize hot drinks and salad dressings.

"Americans want to choose their own from a large range whereas Brits are happy to let Pret decide," Schlee wrote in a blog. He also said Pret offers more choices in the U.S. because "American customers love to mix and match side items like side soups, protein pots and single sandwiches."

The chain opened six new shops in the U.S. in 2015, bringing the total to 65 stores across New York, Washington, Boston and Chicago.

Pret operates 399 shops in the U.K., U.S., Paris, Hong Kong and Shanghai. Its sales globally reached £676.2 million ($973 million) in 2015, with profits jumping 14.5% to £84.3 million.

1. What is driving the growth in sales in the US?
	1. Demand for breakfast food and salads
	2. Everything except for the coffee
	3. Demand for sandwiches
	4. The desire for an alternative to traditional fast food
2. What do their American customers want more than their British ones?
	1. Sandwiches that are healthy
	2. To make more decisions about the products they buy
	3. Food that they can eat on the go
	4. Organic products
3. The company’s US sales year were:
	1. Spread evenly across their 399 US shops in 2015.
	2. Not profitable because of the costs of opening so many new locations.
	3. A major reason why the company is seeing record setting sales this year.
	4. $973 million dollars in total.

(Text from: Technical Communication by Mike Markel)

Although you will often work alone in writing short documents, you will probably work as part of a team in producing more-complicated documents. Collaboration can range from having a colleague review your two-page memo, to working with a team of a dozen technical professionals and technical communicators on a 200-page catalog.

Collaboration is common in technical communication because no one person has all the information, skills, or time to create a large document. Writers, editors, designers, and production specialists work with subject-matter experts--the various technical professionals--to create a better document than any one of them could have created working alone.

Successful collaboration requires interpersonal skills. You have to listen to people with other views and from other business and ethnic cultures, express yourself clearly and diplomatically, and compromise.

1. To be successful at creating a document in a group you need to:
	1. Create a large document.
	2. Let the experts do all the work.
	3. Listen well, express yourself and compromise.
	4. Have a colleague review your memo.
	5. Find one person who has all the information, skills and time to do it.
2. You will often work by yourself when:
	1. Writing a research paper.
	2. Creating a short document.
	3. Creating a 200-page catalogue.
	4. You can express yourself clearly and diplomatically.
	5. Need someone to review your two page memo.

## Essay (15 points)

If you were given $20,000 to start a business, what kind of business would you start and why?