<u>Passage 2</u>:- Read the passage properly and then choose the best option to answer the questions based on the information contained in the passage.

The term lce cream has been derived from the term iced cream or cream ice. lce-cream is basically a arctic dessert that is usually prepared from dairy products. The better dairy products used for making ice cream are milk and cream. These type of products along with other products such as fruits, various essence and other flavours are used to make ice creams having different flavours and tastes. Nuts such as almonds, cashew nuts, hazelnuts and walnuts are commonly used for adding a different and rich flavour to the ice cream. Though major varieties of ice creams are made using sugar; some of them also contain sweeteners for giving a sweet taste to the ice cream. In adjoining to the natural ingredients artificial flavors and colours can also be used for making different types of ice creams.

# Read the passage properly and then choose the best option to answer the questions based on the information contained in the passage.

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<u>Passage 3:-</u> Read the following passage carefully and answer the questions by selecting the most appropriate option of the choices given below each question.

The real name of Birbal was Mahesh Das Bhatt. He abduct birth in a Brahmin family in the year 1528 in Ghoghara, Siddhi district of Madhya Pradesh, India. Maheshdas was the third baby of Gangadas and Anabhadevi. He lost his father Gangadas, at the age of teenager. Since, then he consist with his grandfather Rupdhar, who continue in the city called as Patrapunj. His grandfather Rupdhar was a very large Sanskrit scholar.

Rupdhar started with the education of Mahesh Das at a young age of 5. He learned him Hindi, Sanskrit and Persian which was the state language. Then the family tradition of learning music and poetry, he also learned music and poetry. Soon he started writing his own poems and setting melody to them. This made him as a famous poet, musician and a well-known singer. In the combination of all these qualities, he also had a great wit and very excellent sense of humour. He used to make a mark with his witty communication skills on anyone he met. The kings and emperors in those days were very good adore of art. When the king of Jaipur, Bhagawandas, heard about Mahesh das talent, he called him with great honour to his own composition in the court of Jaipur. Maheshdas used to like write poems under the stage name 'Brahms' and hence, he became well known as 'Brahmakavi'.

Following this, he was invited by Raja Rama Chandra of Rewa at his court. When the dictator Akbar came to know about Maheshdas knowledge, intelligence and wisdom, he called him to be a part of the royal court in the year 1556. Pleased with Mahesh Das, dictator Akbar accord upon him a new name – Birbal, where Bir means Brain and Bal means Strong. He was also presented with the title of Raja by dictator Akbar. Along with being a part of Akbar's inner council of nine advisors, known as

the 'navaratna', a Sanskrit word meaning nine jewels, he was also one of the most assured members of dictator Akbar. Birbal worked with Akbar for a period of 30 years.

Mahesh Das was not only excellent at poetry, singing and music; but he was also very expert in the art of warfare. Gratified with his participation in the mission of Sultanpur at Punjab, the dictator not only conferred him with the title of Veervar but also gave him the Jagir of Nagarkoth.

You can find the collection of Birbal's writings in the Bharatpur museum located in the state of Rajasthan, India. It is said that, Birbal was begin to death while heading a large military troupe during the mission of Afghanistan.

## Questions:

- 1)What was the real name of Birbal?
- 1. Akbar
- 2. Ramachandra
- 3. Maheshdas Bhatt
- 4. Rupdhar
- 5. Gangadas

**Correct Answer: 3** 

- 2) Mahesh Das used to write poems under the pseudonym 'Brahm' and hence, he will be well known by which name?
- 1. Veervar
- 2. Birbal
- 3. Brahmakavi
- 4. Raja
- 5. Jagatguru

**Correct Answer: 3** 

- 3) Where can you find the collection of Birbal's writings?
- 1. Sultanpur museum in Punjab
- 2. Bharatpur museum in Rajasthan
- 3. Sidhi district of Madhya Pradesh
- 4. Patrapunj
- 5. Rewa

**Correct Answer: 2** 

- 4) What was the name of the couple who gave birth to Birbal?
- 1. Gangadas and Anabhadevi
- 2. Akbar
- 3. Rupdhar
- 4. Raja Ramachandra
- 5. Bhagawandas

Correct Answer: 1

- 5) Pleased with the participation of Maheshdas in the mission of Sultanpur at Punjab, the dictator not only conferred him with the title of Veervar but also gave him \_\_\_\_\_?
- 1. Jagir of Nagarkoth
- 2. Jagir of Sultanpur
- 3. Jagir of Delhi
- 4. Jagir of Jaipur
- 5. Jagir of Punjab

**Correct Answer: 1** 

# **Verbal Section: Critical Reasoning Questions**

Critical reasoning questions are a part of the verbal section of the GMAT entrance exam. Each critical reasoning question is collected of three parts namely the statement or an argument basis the question and finally the options. There are five choices for each and every one question and you have to select the best option based on the question for that particular sentence.

Question 1:- If you drink beyond the permissible limits then your health benefits are lost and your health risks go up.

The statement above logically conduct which of the following?

- 1. Consuming more alcohol will be more beneficial for your health
- 2. Your health benefits will be lost increasing your health risks if you drink more than the recommended quantity
- 3. You can drink more than the allowed quantity and get more health benefits
- 4. If you drink more you will get more health benefits and reduce the risks of harming your health
- 5. You should not consume more alcoholic beverages because it will not be very beneficial **Correct Answer: b**

Question 2:- The non-alcoholic contents of wine, such as flavanoids and resveratrol, serve as antioxidants that prevent the "free radicals" or the special type of molecules from damaging the vital body cells.

The statement above will be weakened if it were true that

- 1. The non-alcoholic contents of wine such as flavonoids and resveratrol do not act as anti-oxidants
- 2. Flavonoids and resveratrol function as anti-oxidants and thus benefit the body
- 3. Special type of molecules known as "free radicals" damage the cells in the body
- 4. Wine also contains non-alcoholic chemicals along with the alcoholic chemicals
- 5. Wine is very harmful if consumed in excess

Correct Answer: a

Question 3:- Severe smoking can significantly damage the natural capability of the blood vessels to contract and relax.

From which of the following can the statement beyond be the most properly inferred?

- 1. There are very harmful effects of severe smoking
- 2. You should not smoke at all if you do not want to damage your blood vessels

- 3. Our blood vessels have a natural capability to contract and relax which can damaged to a great extent if you smoke at a high level
- 4. In order to prevent any damage to your blood vessels and their natural ability, you have stop acute smoking
- 5. The blood vessels have a natural ability to contract and relax

Correct Answer: c

Question 4:- The geographic origin of the grapes as well as its type and its way of processing play an important role in deciding the nutritional value and the amount of antioxidants in it.

The statement above logically focus which of the following?

- 1. The nutritional value and the antioxidant content of the grapes cannot be determined by its geographic origin
- 2. You should consider number of factors in order to find out the quality of the grapes
- 3. The quality and the anti-oxidant content of the grapes is decided not only by its geographic origin, but also to which type it apply and how it is processed
- 4. You should eat only well processed grapes because these grapes are rich in anti-oxidants
- 5. There are a number of factors that decide the quality and the content of the anti-oxidants in the grapes

Correct Answer: c

<u>Question 5:-</u> Some scientific researchers have proposed that though the content of antioxidants in the whole grapes is same as that of grape juice and red wine, they provide the body with additional dietary fibre.

From which of the following can the statement will be most properly inferred?

- 1. The whole grapes deliver the same amount of antioxidants that are in grape juice and wine
- 2. Consumption of whole grapes have the added benefit of providing the body with dietary fibre
- 3. You should always prefer whole grapes over grape juice and red wine because whole grapes not only provide with the same amount of anti-oxidants just as the red wine and the grape juice does, but also supply us with dietary fibre
- 4. Unlike the whole grapes, red wine and grape juice cannot provide the dietary fibre
- 5. The whole grapes are more superior than red wine and grape juice because of the additional dietary fibre that it provides to the body

Correct Answer: c

<u>Question 6:-</u> The discovery of a new drug is said to have the ability to predict the Alzheimer's disease before its development and hence the patients of this disease have got a new hope.

The statement above logically conveys which of the following?

- 1. The patients of Alzheimer's disease have been offered with a new hope with the discovery of a new drug with the ability to predict the condition before it develops
- 2. The scientists have discovered a new drug for treating the patients of Alzheimer's disease
- 3. It is the ability of the new drug to predict the disease before it gets developed
- 4. The scientists can predict the disease by using the newly discovered drug
- 5. Patients suffering from the Alzheimer's disease can now recover completely with the help of the new drug

Correct Answer: a

# Question 7:- You can maintain a normal weight by doing exercises regularly since it helps in utilizing the oxygen causing the burning of the fats that are stored in the body.

From which of the following can the statement above be most properly inferred?

- 1. Exercises help you in maintaining a normal body weight since they utilize the oxygen to burn the fats that are stored in the body
- 2. You can use oxygen to burn the fats that get stored in the body and increase your weight
- 3. The fats that are stored in the body can be burned by doing regular exercises
- 4. When you do exercise, the oxygen burns the extra fats that are accumulated in the body and thus helps you in maintaining a normal body weight
- 5. If you want to maintain a normal body weight then you must do exercises on a regular basis Correct Answer: d

Question 8:- It is said that it is very necessary for the girls to work out daily to stay fit and healthy as compared to the boys because, their more muscle mass helps them in burning calories faster and lose weight easily.

The statement above would be weakened if it were true that

- 1. Girls have more muscle mass as compared to the guys and hence they can lose weight easily and remain healthy
- 2. It is not necessary for the guys to work out at all because they are very strong
- 3. Guys are more active than girls and so they do not find it necessary to work out
- 4. Girls should work out daily because they are not as strong as the guys
- 5. Boys have more muscle mass and hence they burn more calories as compared to the girls and remain healthy

**Correct Answer: a** 

<u>Question 9:-</u> Statistics show that in comparison to the deaths caused due to diseases like HIV, alcohol as well as accidents, suicides and murders, majority of them are dying because of tobacco consumption.

The statement above would be weakened if it were true that

- 1. More number of people are dying because of (HIV)human immune deficiency virus infection
- 2. Tobacco is not consumed at all by any person in the world
- 3. More number of people are addicted to alcohol consumption
- 4. People prefer to consume tobacco rather than committing suicide
- 5. You should not consume alcohol and tobacco if you do not want to harm your body Correct Answer: b

Question 10:- Coronary heart disease caused by the consumption of tobacco is the main reason for the death of majority of people in the United States.

From which of the following can the statement above be most properly inferred?

- 1. Consumption of tobacco leads to coronary heart disease which results in death
- 2. Majority of people in the United States die because of coronary heart disease
- 3. Majority of people in the United States die because of tobacco consumption
- 4. Coronary heart disease is a fatal disease that means it can lead to death

 You will die if you consume tobacco in United States Correct Answer: b

**Verbal Section: Sentence Correction Questions** 

Directions for answering the sentence correction type of GMAT questions:

A sentence correction question consists of a sentence, a part or whole of which is underlined. Below the sentence are given five options to phrase the underlined part. The first option is same as the original underlined part and the remaining options are different. Choose an answer that will best fit the meaning of the sentence as a whole.

<u>Question 1:-</u> The people flocked to the cinema hall to see the film guaranteeing its financial success; though the <u>critics denounced the film as silly and insane.</u>

- 1. Critics denounced the film as silly and insane
- 2. Film was very much silly and insane
- 3. Critics did not tell the people to see the film
- 4. The film did not have a good story line
- 5. The theatre was not good at all

Correct Answer: a

<u>Question 2:-</u> Even the most arbitrary and authoritarian corporation today must be aware of the attitudes of its employees; management may at times be more or less responsive, but <u>all the employees must respect the power of an organized work force.</u>

- 1. All the employees must respect the power of an organized work force
- 2. The power of an organized work force must be respected by all the employees
- 3. You must respect the power of work force
- 4. all must respect the power of an organized work force
- 5. The power of an organized work force must be respected by all **Correct Answer**: d

Question 3:-The way in which the candidates answer the difficult questions creates an impression about how long they have been corporate sector, but in reality they entered into it only recently.

- 1. The way in which the candidates answer the difficult questions creates an impression about how long they have been in the corporate sector
- 2. Answer the questions and create an impression about your experience of being a corporate professional
- 3. The ease with which the candidates answer the tough questions creates an impression that they have been in the corporate sector for years
- 4. How easily the tough questions are answered by the candidates decides their service period
- 5. Answer the tough questions easily and create an impression about your experience of being a professional

Correct Answer: c

Question 4:- We should never see what has been done; rather we should always see what is remaining to be done.

- 1. We should never see what has been done
- 2. We should never look at the things that are done
- 3. We should look at the things that are done
- 4. The things that are done should not be overlooked
- 5. We should not look only on the what has been done

Correct Answer: a

# Question 5:- All the members in the family were shocked after hearing the news of Amy coming first in the class.

- 1. All the members in the family were shocked
- 2. The news shocked the whole family
- 3. The whole family was shocked
- 4. All the family was under a shock
- 5. No one in the family was shocked

Correct Answer: a

Question 6:- There is a difference between the prose and the poetry writing in the sense that it does not depend on the rhymes, verses and meters for its presentation as well as organization.

- 1. There is a difference between the prose and the poetry writing
- 2. Both the prose and the poetry writing are different
- 3. The poetry and the prose writings are not similar
- 4. The prose writing is different from the poetry writing
- 5. The writings for the prose and the poetry

Correct Answer: d

Question 7:- A person or sometimes an animal, who takes part in a short story or some other kind of literature work, is known as the character of the short story.

- 1. A person or sometimes an animal, who takes part in a short story
- 2. A person or an animal who participates in a short story
- 3. Anything that takes part in a short story
- 4. Any kind of person, thing or animal who takes part in a short story
- 5. The one who takes part in short story

Correct Answer: a

<u>Question 8:-</u> The layers of atmosphere that coat our planet earth include the ionosphere, mesosphere, exosphere as well as the thermosphere, <u>but it is the layer called as troposphere layer that is closest to the planet earth</u>, which is about 10 miles high and protects us and supports our living.

- 1. but it is the layer called as troposphere layer that is closest to the planet earth
- 2. but it is the troposphere layer that is closest to the planet earth
- 3. but the layer called as troposphere is the nearest to the planet earth
- 4. and the troposphere layer is very near to the planet earth
- 5. then the troposphere layer comes

Correct Answer: b

Question 9:- It took a very long time and very hard work for the researchers to go through the earth's atmosphere into the wide expanse of space beyond the Earth.

- 1. It took a very long time and very hard work for the researchers to go through the earth's atmosphere
- 2. It took many years and many great minds to go through the earth's atmosphere
- 3. In order to go through the earth's atmosphere, it took many years and great talent
- 4. It took many years and many brains to go through the earth's atmosphere
- 5. You require a lot of time and brains in order to go through the earth's atmosphere **Correct Answer: b**

# **Quantitative Section: Data Sufficiency**

## Directions for answering the Data sufficiency

Each of the data sufficiency problems consists of a question followed by two statements, namely (A) and (B). Here, you must decide whether the given data to solve the question is sufficient or not.

The correct answer to each question will be one of the following:

- 1. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- 2. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- 3. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- 4. if each statement alone is sufficient to answer the question
- 5. if the two statements taken together are still not sufficient to answer the question

  Question 1:- Identify whether the result of the following equation is an integer or

Question 1:- Identify whether the result of the following equation is an integer or not; if both x and y are integers?

- $(x^2) (y^2)$
- (A) x = y
- (B) y = 2
- 1. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- 2. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- 3. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- 4. if each statement alone is sufficient to answer the question
- 5. if the two statements taken together are still not sufficient to answer the question

#### Correct Answer: a

## **Explanation:**

It is given that both x and y are integers; therefore  $x^2$  and  $y^2$  will also be integers.

From data (A), we get x = y. After substituting this value in the given equation, we get  $y^2 - y^2 = 0$  which is an integer.

Hence only data (A) is sufficient to answer the question.

Hence option a is the correct answer.

# **Question 2:-** Find out whether the following equation is true or false?

$$(a)^3 - (b)^3 = 0$$

(A) 
$$a = 6$$

(B) 
$$b = -6$$

- 1. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- 2. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- 3. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- 4. if each statement alone is sufficient to answer the question
- 5. if the two statements taken together are still not sufficient to answer the question

#### Correct Answer: c

## **Explanation:**

According to data in (A), the value of a is 6. Using only this data we cannot find out whether the given equation is true or false.

Similarly, it is not possible to find out the answer by using only the data in (B) i.e. b = -6.

But, if we use both the data (A) and (B) and substitute the values of a and b in the given equation, we get  $(a)^3 - (b)^3 = 0$  as,  $(6)^3 - (-6)^3 = (216) - (-216) = 216 + 216 = 432$ .

Hence, the given equation is false.

Hence, the correct answer is option c

# Question 3:- If $a = b^2 - 9$ , then find out whether 'a' is divisible by 9?

- (A) b = 3
- (B) a 27 is divisible by 9
- 1. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- 2. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- 3. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- 4. if each statement alone is sufficient to answer the question
- 5. if the two statements taken together are still not sufficient to answer the question

# Correct Answer: a

# **Explanation:**

By using the data in (A), we can write the given equation  $a = b^2 - 9$  as,  $a = (3)^2 - 9$  i.e. a = 9 - 9 i.e. a = 0; and 0 is not divisible by 9.

As we are able to answer the question with the help of only data (A), therefore, the correct answer is option a.

# Question 4:- If $x^2 + y^2 + 2xy = 16$ ; is 'x' divisible by 10?

(A) 
$$x^2 + y^2 = 8$$
  
(B)  $y = 2$ 

- 1. if statement (A) alone is sufficient to answer the question but statement (B) alone is not sufficient
- 2. if statement (B) alone is sufficient to answer the question but statement (A) alone is not sufficient
- 3. if the two statements (A) and (B) taken together, are sufficient to answer the question, but neither statement alone is sufficient
- 4. if each statement alone is sufficient to answer the question
- 5. if the two statements taken together are still not sufficient to answer the question

## **Correct Answer: c**

According to the data in (A),  $x^2 + y^2 = 8$ . When we substitute this value in the equation given in question, we get,  $8 + 2xy = 16 \leftrightarrow 2xy = 16 - 8 \leftrightarrow 2xy = 8$ .

Hence, we cannot solve the equation completely to find whether 'x' is divisible by 10 or no.

Now, if use the data in (B), then we can write the given equation as,

$$x^{2} + (2)^{2} + 2(x)(2) = 16 \leftrightarrow x^{2} + 4 + 4x = 16 \leftrightarrow x^{2} + 4x = 12 \leftrightarrow x^{2} + 4x - 16 = 0.$$

Hence, it is proved that, it is not possible to find the value of 'x' by using either only (A) or only (B).

But, by using both the data, we get

$$8 + 2(x)(2) = 16 \leftrightarrow 8 + 4x = 16 \leftrightarrow 4x = 8 \leftrightarrow x = 2$$
.

Thus, the correct answer is option c.

## Question 5:- Find out the value of 'm'?

- (A)'m' is a single digit, non-negative whole number?
- (B)'m' is an even number and the sum of its factors is less than the even number by 2.
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question Correct Answer: c

#### **Explanation:**

If we use only the data (A), we will not be able to find the exact value of 'm'; since there may be more than one even numbers whose sum of the factors may be less than the number by 2. But, if use the data provided in both (A) and (B), we can surely find out the exact value of 'm' as follows:

The single digit even numbers that are less than 10 include the numbers 2, 4, 6 and 8.

Now, the factors of 2 are 1 and 2 and its addition is 3; which is not less than 2 by the even number 2.

The factors of 4 are 1, 2 and their addition is 3; which is not less than 2 by the even number 4.

The factors of 6 are 1, 2 and 3 and their addition is 6; which is less than 2 by the even number 6.

The factors of 8 are 1, 2 and 4 and their addition is 7; which is not less than 2 by the even number 8. Hence, the correct answer is option c.

# Question 6:- Find the value of the variable 'b'; if a\*b = 15 and both the variables belong to the set of integers.

- 1. a is less than b
- 2. a is an odd number
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient

- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question Correct Answer: e

# **Explanation:**

First we will find the number of ways through which we get the product of two integers as 15. 1\*15 = 15 - 1\* - 15 = 15 3\*5 = 15 - 3\* - 5 = 15

There are in all 4 ways that give the product 15. But, not all of them satisfy the given conditions to find the correct value of 'b'.

Now, according to (A), a is less than b. There are two numbers 1 and 3 that satisfy this condition. Hence, it is not possible to find the exact value of 'b' using only (A).

Now, according to (B), a is an odd number. From the above results, 1, -1, 3, -3, 5, -5, 15, -15 are all odd numbers. Hence, it is not possible to find the exact value of 'b' using only (B).

Now, using both the given conditions, we can find the value of 'b' as, 1 and 3. Still we are unable to find the exact value of 'b'.

Therefore, we need more information to find the correct value of 'b'.

Hence, the correct answer is option e.

# Question 7:- Find out whether 'm' is an integer or not?

- 1. m² is an integer
- 2. 2m is an integer
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question Correct Answer: c

## **Explanation:**

According to (A), m<sup>2</sup> is an integer.

Suppose,  $m^2 = 3$ , then m is not an integer.

But, if  $m^2 = 16$ , then m = 4 is definitely an integer.

Thus, using only the data (A), we cannot find the correct answer for the given question.

Now, according to data (B), 2m is an integer.

Say, 2m = 1, then m is not an integer.

But, if 2m = 4, then, m = 2 i.e. m is an integer.

Thus, using only the data (B), we cannot find the correct answer for the given question.

But, if we use both the data (A) and (B) together, only then, we can say that the given question is true or false.

Hence, the correct answer is option c.

#### Question 8:- State whether x = 5 is true or false.

- 1. (x-5)(y-4)=0
- 2. y 4 = 1
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient

- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

#### **Correct Answer: e**

# **Explanation:**

As per the data (A), we can say that, (x-5) = 0 or (y-4) = 0 i.e. x = 5 or y = 4.

But, we cannot tell whether x = 5 is always true. Hence (A) alone is not sufficient.

As per the data (B), y - 4 = 1 i.e.  $y = 1 + 4 \rightarrow y = 5$ . There is no information regarding the value of 'x' in the given data (B).

Now, using both (A) and (B), still we cannot say anything about the value of x.

Hence, the correct answer is option e.

# Question 9:- Find out whether a4 is greater than a2?

- 1. a is non-negative
- 2. a is not greater than 1
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question

#### Correct Answer: e

### **Explanation:**

As per the data given in (A), a is a non-negative number i.e. a > 0.

Suppose, a = 2, then,  $a^2 = 4$  and  $a^4 = 16$ . Hence,  $a^4 > a^2$ 

Now, as per the data given in (B), a is less than 1.

Suppose, a = -0.9, then,  $a^2 = 0.81$  and  $a^4 = 0.6561$ . Hence,  $a^4 < a^2$  for all the values of a less than 1 The results obtained from both the given data (A) and (B) are not sufficient to find out whether  $a^4$  is greater than  $a^2$ .

Hence, the correct answer is option e.

## Question 10:- Find out whether m is completely divisible by n or not.

- 1. m is a positive integer and is divisible of 3
- 2. n is a positive integer and is a multiple of 4
- 1. (A) ALONE is sufficient to answer the question but (B) alone is not sufficient
- 2. (B) ALONE is sufficient to answer the question but (A) alone is not sufficient
- 3. Both (A) and (B) TAKEN TOGETHER, are sufficient to answer the question, but NEITHER (A) nor (B) ALONE is sufficient
- 4. Both (A) and (B) ALONE are sufficient to answer the question
- 5. Both (A) and (B) TAKEN TOGETHER are still NOT sufficient to answer the question Correct Answer: e

According to the data (A), m > 0 and m is divisible by 3. There is no data about the value of n.

Suppose, m = 3 and n = 4, then m is not completely divisible by n.

But, if m = 12 and n = 4, then m is completely divisible by n.

Hence, using only data (A) we cannot find the answer to the given question.

Now, according to the data (B), n > 0 and n is a multiple of 4. There is no data about the value of m.

Suppose, n = 4 and m = 3, then m is not completely divisible by n.

But, if n = 8 and m = 24, then m is completely divisible by n.

Hence, using only data (B) we cannot find the answer to the given question.

Now, using both the data (A) and (B),

Suppose, m = 9 and n = 8, then m is not completely divisible by n.

But, if m = 12 and n = 12, then m is completely divisible by n.

Thus, using both (A) and (B) also, we cannot find the correct answer to the given question.

Hence, the correct answer is option e.

**Question 10**:-On evaporating all the water out of the all the oceans available on the planet earth and spreading the obtained salt on the entire land, you will find a thick coating of about five hundred foot.

- 1. On evaporating all the water out of the all the oceans available on the planet earth and spreading the obtained salt
- 2. After evaporating all the water out of all the oceans on Earth and spreading the resulting salt
- 3. Evaporation of all the water in all the oceans on the earth and spreading the salt
- 4. Evaporate all the water found in all the oceans on the planet earth and then spread the salt
- 5. Perforate all the water found in all the oceans on the planet earth and then spread the salt **Correct Answer: b**

# **Quantitative Section: Problem Solving Ability**

Problem solving questions are a part of the verbal section of the GMAT entrance exam. It tests the quantitative reasoning ability of the examinee. These questions are based various topics of mathematics. Each question has five answer choices. You have to solve the question in order to find out the correct answer from the five options. Let us have a look at some sample questions based on problem solving.

<u>Question 1:-</u> One of the sides of a square measures 10 cm in length. If we increase the size of two opposite sides by a couple of centimeters and decrease the length of the remaining two opposite sides by the same measure, then what will be the area of the resulting figure in meter?

- 1. 192 m
- 2. 19.2 m
- 3. 192 cm
- 4. 1.92 m
- 5. 0.192 m

Correct Answer: e

#### **Explanation:**

It is given that the sides of the square measure 10cm in length. Therefore the area of square is side \* side = 10 \* 10 = 100 square cm.

Now, the question says that the length of some two opposite sides is reduced by a couple of centimeters i.e. it is reduced by 2 cm and the length of the other two opposite side is increased by the same measure i.e. 2 cm only.

Hence, as per this, the length of the sides of the square has changed to 8 cm and 12 cm respectively. From this we can conclude that the resulting figure is a rectangle. Now the area of a rectangle is 2 \* length \* breadth = 2 \* 8 \* 12 = 192 square cm. But the question asks the area in meters. Hence,  $192 \text{ cm} = 192 * 10^3 \text{ meter} = 0.192$  square meter. Hence the correct answer is option e.

Question 2:- If a man drives a car at a speed of 50 km per hour; then calculate the distance covered by the man in 10 minutes if he is driving at the same speed constantly.

- 1. 8.000 km
- 2. 8.900 km
- 3. 8.350 km
- 4. 8.335 km
- 5. 0.875 km

Correct Answer: d

## **Explanation:**

It is given that man is driving at a speed of 50 km/hr for 10 minutes.

We know that, distance = speed \* time-----(i)

After substituting the value of speed and time in this formula we get,

Distance = 50 km/hr \* 10 minutes-----(ii)

Now, 1 hour = 60 minutes Therefore, x hours = 10 minutes  $\rightarrow$  x = 10 / 60  $\rightarrow$  x = 0.1667 hours.

Now, substituting the value of 'x' in equation (ii), we get,

Distance = 50km/hr \* 0.1667 hr

Distance = 8.335 km

Hence, the correct answer is option d.

Question 3:- If the scale used for drawing a map states that the actual distance of 50 km is represented by 1cm on the map; then according to this scale what will be the actual distance between Los Angeles and Washington D.C. if Washington D.C. is 12.22 cm away from America on the map?

- 1. 611 km
- 2. 61 km
- 3. 61.1 km
- 4. 611 cm
- 5. None of the above

Correct Answer: a

# **Explanation:**

It is given that, 1cm on map is equal to 50 km on the road.

We have to find out the actual distance for a distance of 12.22cm on the map.

We can write the above equalities as follows,

 $1 \text{ cm} = 50 \text{ km} \setminus 12.22 \text{ cm} = \text{say 'x' cm}.$ 

x = 50 \* 12.22 = 611 km.

Hence, the correct answer is option a

Question 4:- It is given that the weight of an empty box is 1000 gm and the total weight of the box when filled with apples and mangoes is 10kg. If there are 3 dozens of apple in the box

and the weight of each apple is 200 gm whereas the weight of every mango is 300 gm, then, find out the total number of mangoes in the box.

- 1. 6
- 2. 8
- 3. 9
- 4. 10
- 5. None of the above **Correct Answer**: a

## **Explanation:**

According to the data given in the question:

Weight of an empty box is 1000 gm = 1kg

Total weight of the box when filled with apples and mangoes is 10kg = 10000 gm

There are 3 dozens of apple in the box = 12\*3 = 36 apples in all

Weight of each apple is 200 gm and

Weight of an empty box i.e. 36 apples = 200gm \* 36 = 7200gm

Now weight of total mangoes in the box = (Total weight of the box when filled with apples and

mangoes) - (Weight of an empty box + Weight of an empty box)

Weight of total mangoes in the box = (10000) - (1000 + 7200) = (10000 - 8200)

Weight of total mangoes in the box = 1800

But, it is given that weight of every mango is 300 gm.

Hence, weight of say 'x' mangoes = 1800 gm

x = 1800 / 300 = 6

Therefore, there are in all 6 mangoes in the box.

Hence, the correct answer is option a.

<u>Question 5:-</u> If we increase the area of a circle by 32 % then, calculate the approximate increase in the radius of the same circle in terms of percentage.

- 1. 32 %
- 2. 42 %
- 3. 22 %
- 4. 20 %
- 5. None of the above

Correct Answer: d

#### **Explanation:**

Area of a circle = pi \* radius \* radius

Say for example radius = 4 units and pi = 3.14

Then area of this circle = pi \* 4 \* 4 = 3.14 \* 4 \* 4 = 55.04

Now, we have to find out the percentage increase in the radius if we increase the area by 32 %. (32 \* 55.04) / 100 + (55.04) = 72.6258

This is 32 percent increased area of the circle.

Now, we have to find out the radius,

Say 'x' is the percentage increase in the radius of the circle.

Therefore, pi \* (x + 4) \* (x + 4) = 72.6258

 $(x + 4)^2 = 72.6258/3.14 = 0.004$ 

On solving the equation we can say that, for 20% increase in the radius the area of the circle

increases by 32%. Hence, the correct answer is option d.

Question 6:- Tim, Tom and Max decide to go out for dinner. Tom had \$ 50 whereas; Tim and Max had \$ 110 and \$ 400 respectively. The bill charged them \$ 113 for their dinner. They paid \$ 120 and the extra \$ 7 was given as a tip to the waiter who served them. They first decide to share the bill equally. But, since Tim had very less money with him he paid only 25 % of the bill whereas; Tom and Max paid 35 % and 40 % of the bill respectively. Calculate the amount of money paid by Tim.

- 1. \$30
- 2. \$42
- 3. \$48
- 4. \$50
- 5. None of the above **Correct Answer**: a

## **Explanation:**

Tom had \$ 50, Tim had \$ 110, and Max had \$ 400 respectively. The total bill for the dinner = \$ 113. They paid \$120 and gave the extra \$7 as tip. Tim paid 25 % of the bill.  $\therefore$  (25 \* 120) /100 = \$ 30 Tom paid 35 % of the bill.  $\therefore$  (35 \* 120) /100 = \$ 42 Tim paid 25 % of the bill.  $\therefore$  (40 \* 120) /100 = \$ 48 From this we come to know that Tim paid \$ 30 for dinner. Hence, the correct answer is option a.

<u>Question 7:-</u> The measures of the sides of an irregular polygon are given in the figure as follows. Look at the figure and calculate the perimeter of the irregular polygon.

- 1. 20 m
- 2. 35 m
- 3. 30 m
- 4. 45 m
- 5. None of the above **Correct Answer**: d

Perimeter of an irregular polygon is equal to the sum of all its sides. According to the data given in the question, the sides measure as 8, 10, 12 and 15 Hence, we can calculate the perimeter of this figure as (8 + 10 + 12 + 15 = 45 m) Hence, the correct answer is option d.

Question 8:- Consider the following figure and find out the ratio between the areas of the largest and the smallest circles. Given that all the circles are drawn considering the same center i.e. all the circles are concentric.

- 1. 1:3
- 2. 3:1
- 3. 1:6
- 4. 6:1
- 5. 6:3

Correct Answer: d

## **Explanation:**

According to the figure, the radius of the circles are denoted by a, 3a and 6a where 'a' can be any variable that represents certain value or some unit of measurement.

From the figure we can say that the radius of the smallest circle is 'a'.

The radius of the middle circle is 3a and the radius of the outermost circle is 6a.

Now, we have to find out the ratio between the areas of the biggest and the smallest circles.

We know that, area of a circle = pi \* radius \* radius = pi (radius<sup>2</sup>)

Therefore, area of the smallest circle = pi ( $a^2$ )

And area of the largest circle = pi (6a<sup>2</sup>)

Hence, Ratio of the areas of these circles = pi (6a<sup>2</sup>): pi (a<sup>2</sup>) = 6: 1

The areas of the biggest and the smallest circles are in the ratio 6: 1

Hence, the correct answer is option d.

## Question 9:- If a + b = 10 and a - b = 20, then what will be the value of a/b?

- 1. 10/20
- 2. 1/3
- 3. -1/3
- 4. -3
- 5. None of the above

Correct Answer: c

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According to the data given in the question, a+b=10 -----i a-b=20-----ii On adding equations I and ii we get, 2a=30 a=15 Substituting the value of 'a' in equation I we get, 15+b=10 b=10-15 b=-5 Hence we have the values of 'a' and 'b' as a=15 and b=-5 Now, we have to find out the value of a/b=15/-5 a/b=3/-1=-3 Hence, the correct answer is option d.
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Question 10:- The ratio between the ages of Mary and her mother is 1: 2 and that of Mary and her father is 1: 3 at the time of Mary's birth. Mary is 10 years old now. Find out the ratio between the ages of Mary's mother and father at this age of Mary.

- 1. 1:2
- 2. 1:3
- 3. 2:3
- 4. 3:2
- 5. None of the above **Correct Answer**: **c**

#### **Explanation:**

According to the data given in the question, when Mary took birth, The ratio between the ages of Mary and her mother is 1: 2 The ratio between the ages of Mary and her father is 1: 3 Now, if we say 'x' is the age of Mary when she is born Hence, we can say that her mother's age is 2x and her father's age is 3x------i Now, Mary is 10 years old. Therefore, from equation 1 we can say, Her mother's age is 2x i.e. 2\*10 = 20 and her father's age is 3x i.e. 3\*10 = 30 at this age of Mary. Thus, the ages of Mary's mother and Mary's father are in the ratio 20:30 = 2:3 Hence, the correct answer is option c.

# <u>Analytical Writing Assessment</u>

#### Topic 1:- Education comes not from books but from realistic knowledge and experience.

- The statement means that at times practical experience can be a better method of education than pure classroom work. The use of books to present abstract ideas is one kind of education that is better to learn from books than realisite experience. Take math, for instance. Math concepts are best learned from books rather than realistic experience. Also, history is best learned in the classroom since a person can't physically go back in time and watch a war.
- Certain professions are learned on the <u>job</u>, like carpentry and plumbing. Realistic experience is the primary method of education. It is the same way for surgery. You would not want someone to take out your appendix unless they had practiced this procedure many times on someone else.

In certain circumstances, books and practical experience go hand in hand so that students can learn
from both. Mostly this is also really true in medical school. You read books about anatomy and then
learn where the organs are located. This is really very helpful. Then you dissect dead bodies and get
the practical experience of seeing where the organs are in the body. Only then you ready to perform
surgery.

<u>Topic 2:-</u> Politicians too often base their conclusion on what will please the voters, not on what is best for the country.

- In a representative democracy, representatives are choosen by the voters to convey their ideas and values in the government. These representatives are polled for by citizens according to their degree to which they will uphold these thought and values. Citizens would obviously not vote someone into office who believes in the opposite of the citizens on several issues. The representatives will be reelected in the same manner; the degree to which the citizens ideas and values were supported. It is not surprising that politicians will base their decisions on what will please the voters and not on what is best for the country. The politicians must have maintain the popularity of the voters and the best method to achieve that is to please them with the actions made in governmental circles. The politicians however are not merely carbon copies of the citizen's consensus opinions. The politicians will have belief of their own and occasionally this may conflict with those of the voters. At this time the politicians may work an unpopular decision for what they feel is for the good of the country. One example is often seen with the petition of Nazi groups to march. While an exceptionally hugh majority of citizens would never want to see this march occur, many politicians would not have any choice but to let the march proceed for the greater good, in this case it is the right to free speech guaranteed by the 1st Amendment to the constitution. From the ideally, much of this country was founded and it would by hypocritical to deny it to another group regardless of how unpopular this group was to the voters.
- While this is an extreme case of politicians displeasing the voters for the good of the country, there exists a great range of "grey" area where politicians and voters do not fitting eye to eye. So what should be considered when making a decision to please the voters or help the nation? Fortunately, for the most part, the voters will also have a good interest of the nation at heart but trouble can still proceed. One major problem is the building of new prisons or landfills. For most voters, there will be no question that they are desired, but none of the voters wants to see the prison or landfill wind up in their backyards. To deal with such problems and still remain in good standing with the voters, the politicians must learn to make concessions. For instance, the same district where a new prison is built, a new High School and Industrial Park is set up to better education and increase jobs and the local economy. Politicians must weigh the potential degrees of disfavour that they may incur when determining whether to serve the nation at the risk of the voters. Politicians are unable to please all of the voters all of the times, but by ensuring that unfavourable decision are accompanied by many favourable ones, the politicians can balance on the treacherous tightrope between serving their country and serving their voters.