

KARACHI INSTITUTE OF TECHNOLOGY AND ENTREPRENEURSHIP
Sample Questions for Admissions Test – Fall 2021

Requisite Instructions:

Time: 1 hour

Max. Marks: 45

- There are 3 section contains. Each section contains 15 questions
- Attempt All questions.
- Each question carries 1 mark.
- No negative marking.
- Programmable calculator is Strictly NOT allowed.
- Best of luck.

ENGLISH

The following passage refers to questions 1-5.

Conflict had existed between Spain and England since the 1570s. England wanted a share of the wealth that Spain had been taking from the lands it had claimed in the Americas.

Elizabeth I, Queen of England, encouraged her staunch admiral of the navy, Sir Francis Drake, to raid Spanish ships and towns. Though these raids were on a small scale, Drake achieved dramatic success, adding gold and silver to England's treasury and diminishing Spain's supremacy.

Religious differences also caused conflict between the two countries. Whereas Spain was Roman Catholic, most of England had become Protestant. King Philip II of Spain wanted to claim the throne and make England a Catholic country again. To satisfy his ambition and also to retaliate against England's theft of his gold and silver, King Philip began to build his fleet of warships, the Spanish Armada, in January 1586.

Philip intended his fleet to be indestructible. In addition to building new warships, he marshaled 130 sailing vessels of all types and recruited more than 19,000 robust soldiers and 8,000 sailors. Although some of his ships lacked guns and others lacked ammunition, Philip was convinced that his Armada could withstand any battle with England.

The martial Armada set sail from Lisbon, Portugal, on May 9, 1588, but bad weather forced it back to port. The voyage resumed on July 22 after the weather became more stable.

The Spanish fleet met the smaller, faster, and more maneuverable English ships in battle off the coast of Plymouth, England, first on July 31 and again on August 2. The two battles left Spain vulnerable, having lost several ships and with its ammunition depleted. On August 7, while the Armada lay at anchor on the French side of the Strait of Dover, England sent eight burning ships into the midst of the Spanish fleet to set it on fire. Blocked on one side, the Spanish ships could only drift away, their crews in panic and disorder. Before the Armada could regroup, the English attacked again on August 8.

Although the Spaniards made a valiant effort to fight back, the fleet suffered extensive damage. During the eight hours of battle, the Armada drifted perilously close to the rocky coastline. At the moment when it seemed that the Spanish ships would be driven onto the English shore, the wind shifted, and the Armada drifted out into the North Sea. The Spaniards recognized the superiority of the English fleet and returned home, defeated.

1. Sir Francis Drake added wealth to the treasury and diminished Spain's _____.
 - a) unlimited power
 - b) unrestricted growth
 - c) territory
 - d) treaties
 - e) Answer not available in article
2. King Philip recruited many _____ soldiers and sailors.
 - a) warlike
 - b) strong
 - c) accomplished
 - d) timid
 - e) inexperienced
3. The _____ Armada set sail on May 9, 1588.
 - a) complete
 - b) warlike
 - c) independent
 - d) isolated
 - e) Answer not available
4. The two battles left the Spanish fleet _____.
 - a) open to change
 - b) triumphant
 - c) open to attack
 - d) defeated
 - e) discouraged
5. The Armada was _____ on one side.
 - a) closed off
 - b) damaged
 - c) alone
 - d) circled
 - e) Answer not available in this article
6. Anna and Tania went shopping, but _____ couldn't find anything _____ liked.
 - a) they, those
 - b) they, them
 - c) those, they
 - d) they, they
7. While UK has earned record revenue this year, _____ well behind in exports.
 - a) it still lag
 - b) it still lags
 - c) it lag still
 - d) it lags still
8. When her schoolwork got to be too much, Pam had a tendency to _____, which always put her further behind.
 - a) dedicate
 - b) rejuvenate
 - c) ponder
 - d) excel
 - e) procrastinate

9. The small child does whatever his father **was done**.

- a) has done
- b) did
- c) does
- d) had done
- e) No correction required

10. I need not offer any explanation regarding this incident – my behavior **is speaking itself**.

- a) will speak to itself
- b) speaks for itself
- c) has been speaking
- d) speaks about itself
- e) No correction required

11. The song in the play cannot be deleted as it is _____ to the story.

- a) intervened
- b) innate
- c) exacting
- d) integral

12. Chose the correct punctuation.

- a) Spain is a beautiful country; the beache's are warm, sandy and spotlessly clean.
- b) Spain is a beautiful country: the beaches are warm sandy and spotlessly clean.
- c) Spain is a beautiful country, the beaches are warm, sandy and spotlessly clean.
- d) Spain is a beautiful country; the beaches are warm, sandy and spotlessly clean.

13. He is used to _____ cricket.

- a) Play
- b) played
- c) playing
- d) plays

14. Chose the correct punctuation.

- a) The children's books were all left in the following places: Mrs Smith's room, Mr Powell's office and the caretaker's cupboard.
- b) The children's books were all left in the following places; Mrs Smith's room, Mr Powell's office and the caretaker's cupboard.
- c) The childrens books were all left in the following places: Mrs Smiths room, Mr Powells office and the caretakers cupboard.
- d) The children's books were all left in the following places, Mrs Smith's room, Mr Powell's office and the caretaker's cupboard.

15. Earth is closest to the sun every year in early _____, when it's winter for the Northern Hemisphere. We're farthest away from the sun in early _____, during our Northern Hemisphere summer.

- a) January, July
- b) June, December
- c) July, January
- d) December, June

Answer key.

1. A
2. B
3. B
4. C
5. A
6. D
7. B
8. E
9. C
10. B
11. D
12. D
13. C
14. A
15. A

MATHEMATICS

1. On Saturday afternoon, Armand sent m text messages each hour for 5 hours, and Tyrone sent p text messages each hour for 4 hours. Which of the following represents the total number of messages sent by Armand and Tyrone on Saturday afternoon?

- a) $9mp$
- b) $20mp$
- c) $5 + 4m + p$
- d) $4 + 5m + p$

2. $h = 3a + 28.6$

A paediatrician uses the model above to estimate the height h of a boy, in inches, in terms of the boy's age a , in years, between the ages of 2 and 5. Based on the model, what is the estimated increase, in inches, of a boy's height each year?

- a) 3
- b) 5.7
- c) 9.5
- d) 14.3

3. A line in the xy -plane passes through the origin and has a slope of $\frac{1}{7}$. Which of the following points lies on the line?

- a) (0, 7)
- b) (1, 7)
- c) (7, 7)
- d) (14, 2)

4. If $3x - y = 12$, what is the value of $\frac{8^x}{2^y}$?

- a) 2^{12}
- b) 4^4
- c) 8^2
- d) The value cannot be determined from the information given.

5. $x + y = -9$
 $x + 2y = -25$

According to the system of equations above, what is the value of x ?

- a) 7
- b) 16
- c) -16
- d) -7

6. **A** is two years older than **B** who is twice as old as **C**. If the total ages of **A**, **B** and **C** be 27, then how old is **B**?

- a) 7
- b) 8
- c) 9
- d) 10
- e) 11

7. If one-third off one-fourth of a number is 15, then three-tenth of that number is:

- a) 35
- b) 36
- c) 45
- d) 54

8. **24** students in a class took an algebra test. If **18** students passed the test, what percent did not pass?

- a) 45
- b) 25
- c) 75
- d) 60

9. Using factorization, the expression $x^2 + 15x + 36 = ?$

- a) $(x + 3)(x + 4)$
- b) $(x + 3)(x - 4)$
- c) $(x + 3)(x + 12)$
- d) $(x + 3)(x - 12)$

10. Dilbar buys a washing machine for \$200, original sale price of washing machine is \$250, percentage discount is

- a) 20%
- b) 40%
- c) 60%
- d) 80%

11. A complex number added to its additive inverse would give?

- a) Multiplicative identity
- b) Additive identity
- c) Additive inverse
- d) Multiplicative inverse

12. $(A \cup B) \cup C =$

- a) $A \cap (B \cup C)$
- b) $A \cup (B \cap C)$
- c) $A \cup (B \cup C)$
- d) π

13. The wages of 10 workers for a six-day week is \$1200. What are the one day's wages of 4 workers?

- a) \$40
- b) \$32
- c) \$80
- d) \$24

14. What is the arithmetic mean of the following numbers:

2,3,5,7,8,0,100,90,13,11

- a) 24.1
- b) 23.9
- c) 23.8
- d) 22.1

15.) The length of the diameter of the circle $x^2 + y^2 = a^2$ is,

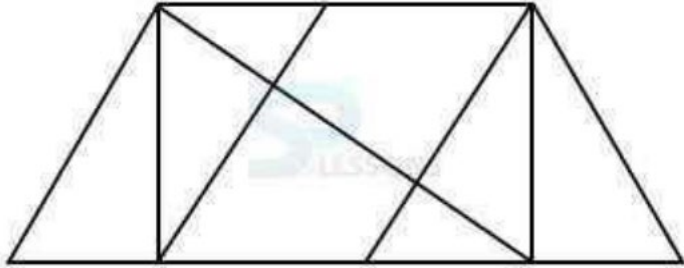
- a) 0
- b) a
- c) 2a
- d) 3a

Answer key.

- 1. C
- 2. A
- 3. D
- 4. A
- 5. A
- 6. D
- 7. D
- 8. B
- 9. C
- 10. A
- 11. B
- 12. C
- 13. C
- 14. B
- 15. C

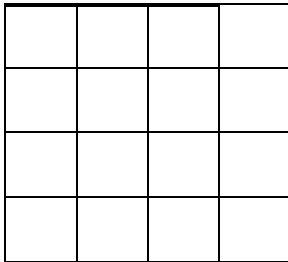
ANALYTICAL

1.) Find the number of triangles in the given figure



- A. 8
- B. 10
- C. 12
- D. 14

2.) Count the number of squares in the given figure.



- A. 32
- B. 30
- C. 29
- D. 28

3.) What is the next number in this following sequence 2 6 11 17 24_____?

- A. 32
- B. 36
- C. 33
- D. 42

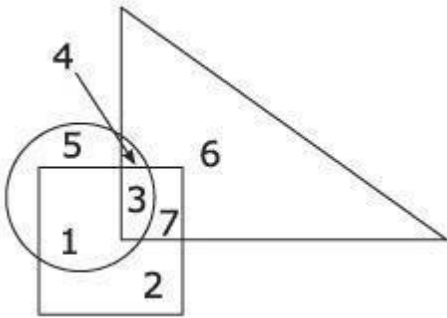
4.) What is $67 \times 3 + 234$?

- A. 398
- B. 512
- C. 396
- D. 435

5.) 1,2,3,1,4,9, 1, ... 27.

- A. 5
- B. 4
- C. 16
- D. 8

6.) Circle indicates 'strong', square indicates 'tall' and triangle 'army officers'. The strong army officers who are not tall are shown by the number:



- A. 6
- B. 3
- C. 4
- D. 5

7.) What is the area of the parallelogram below?



- A. 50
- B. 100
- C. 30
- D. 36

8.) In a class of 40 students 20% are girls. How many boys are there in the class?

- A. 26
- B. 28
- C. 30
- D. 32

9.) The number of 3-digit numbers divisible by 6, is

- A. 149
- B. 166
- C. 150
- D. 151

10.) How many hours in 90 minutes?

- A. 1.5 hours
- B. 1.30 hours
- C. 1 hour
- D. None of these.

11.) During a certain week a post office sold \$280 worth of 14 cents stamps. How many of these stamps did they sell?

- A. 20
- B. 200
- C. 2000
- D. 20000

12.) On a map a distance of 100 cm represents 5km. If a street is 750 m long what is its length in the map in cm?

- A. 10
- B. 15
- C. 20
- D. 35

13.) In a class there are 27 students. If there are 7 more girls than boys in the class how many students are girls?

- A. 15
- B. 17
- C. 20
- D. 23

14.) The product of 3 and n is equal to 2 less than m. Which of the following is

- true? A. $6n - m - 2 = 0$
- B. $6n - 6 = 0$
- C. $3n - m - 2 = 0$
- D. $3n - m + 2 = 0$

15.) There are 40 minutes to solve a test of 60 questions. A student completes 20 questions in 20 minutes. He continues with the same speed and leaves the hall 10 minutes earlier. The number of questions solved by him is:

- A. 20
- B. 30
- C. 40
- D. 45

Answer key.

- 1. C
- 2. B
- 3. A
- 4. D
- 5. D
- 6. C
- 7. A
- 8. D
- 9. C
- 10. A
- 11. C
- 12. B
- 13. B
- 14. D
- 15. B