AMCAT Sample Questions

English

1. She has **lived** in Chennai since she was eight – Synonym for Bolded word
   a. Lived
   b. Has been living
   c. Had stayed
   d. Is living

2. I always wanted a basketball and _____ i-pod in my collection.
   a. The
   b. a
   c. an
   d. None of the above

3. For as long as she could remember, Divya has loved **to cook, to dance, and, until her poor vision made it impossible for her to do so,** reading books. Find the best alternative for Bolded part of the sentence
   a. To cook, to dance, and, until her poor vision made it impossible for her to do so
   b. Cooking, to dance, and, until her poor vision made it impossible for her to do so
   c. Cooking , dancing, and , until her poor vision made it impossible for her to do so
   d. Cooking , to dance, and, until she lost her vision
   e. Cooking , dancing, and, until she lost her vision

4. Countries which _____ still undergoing the economic process _____ known as developing countries.
   a. Were, are
   b. Are, were
   c. Are, are
   d. Is, are
   e. Are, is

5. (A) All the guests on the (B) boat got frightened (C) when they heard the alarm. Which part of the sentence is erroneous
   a. (A)
   b. (B)
   c. (C)
   d. No error

6. Nothing _____ convinced her to cancel her trip to Goa.
   a. Was going to
   b. Could have
   c. Could
   d. Will have

7. Sunitha has a flair …………… music.
   a. At

b. To

c. With

d. For

8. Which of the following explains the meaning of the proverb "Every cloud has a silver lining"?

    a. When the cloud has a silver lining after the rain

    b. Every sad or difficult situation has a positive side

    c. Good times follow difficult ones

    d. A need to face the difficult times with courage

9. _____ the shirt was washed twice, still he refused to wear it

    a. Though

    b. Because

    c. However

    d. Since

    e. While

10. CREDULITY - Synonym

    a. Credible

    b. Discipline

    c. Gullible

    d. Weakness

11. MONOTONOUS - Synonym

    a. Assorted

    b. Spirited

    c. Mixed

    d. Tedious

12. SHABBY - Synonym

    a. Pure

    b. Dirty

    c. Interesting

    d. Curious

13. CONCEITED - Synonym

    a. Arrogant

    b. False

    c. Deceive

    d. Misconception

14. IGNITE (OPPOSITE)

    a. Extinguish

    b. Wet

    c. Soak

    d. Drench

15. RUDE (OPPOSITE)

    a. Detest

    b. Beastly

    c. Respectful

    d. Hideous

16. ADVENT (OPPOSITE)
    a. End
    b. Dawn
    c. Emergence
    d. Flexible
    e. Adamant

17. Re Arrange the sentences P, Q, R and S to produce correct sentence

    We have to
    P: as we see it
    Q: speak the truth
    R: there is falsehood and darkness
    S: even if all around us

    a. RQSP
    b. QRPS
    c. RSQP
    d. QPSR

8 more Questions from Reading Comprehension

Quantitative Ability (25 Questions, 35 Minutes)

1. What is the value of $(5^{-2} \times 10^{-4})/(2^{-5} \times 5^{-6})$
    a. 0
    b. 2
    c. 5
    d. 10

2. Jagdish can build a wall in 10 days. Narender can build same wall in 12 days while Sumit takes 15 days to do the same the job. Which two of them should be employed to finish the job in 6 days?

    a. Jagdish and Narender
    b. Jagdish and Sumit
    c. Sumit and Narender
    d. None of the above

3. If log52 – log5x = 4, what is the value of X?

a. 2/625
   b. 1/250
   c. 2/125
   d. 4/25
4. If from a deck of 52 cards, 4 cards are to be selected and one card of it should be a spade and another card should be a heart, in how many ways can these cards be selected?

   a. $13^{2 * 50} C2$
   b. $^{52}C4$
   c. $26^{* 50} C2$
   d. $^{13} C4$

5. The LCM of three different numbers is 256. Which one of the following can never be their HCF?

   a. 4
   b. 16
   c. 24
   d. 32

6. If log3m/ log3n, then find the value of m and n.

   a. m = 2 & n = 5
   b. m = 5 & n= 2
   c. m = 3 & n =3
   d. m = 3 & n = 5
7. If the sum of squares of two numbers is 164 and their HCF and LCM are 2and 40 respectively, then the numbers are:

   a. 4,8
   b. 4, 10
   c. 8, 10
   d. 10, 12
8. Find the largest two digit number that divides 673 and 865, leaving remainder 1 in each.
   a. 91
   b. 93
   c. 96
   d. 98
9. If by selling 10 papayas , the cost price of 8 papayas is realized , then the gain percent is :

   a. 20%

b. 10%

c. 8%

d. 2%

10. Product of two numbers is 9,152 and their HCF IS 8. What is the LCM of the numbers?

   a. 9,152

   b. 1,144

   c. 73,216

   d. 2,344

11. If $\log\sqrt2\ [\log\sqrt5\ (\log\sqrt5 X)] = 2$, what is the value of X?

   a. 5

   b. √5

   c. 625

   d. 25√5

12. What is the highest power of 5 contained in 2001?

   a. 40

   b. 49

   c. 50

   d. 57

13. A Shopkeeper offers 'Buy 1, Get 1 Free' offer on a t- shirt marked at Rs. 2,400. If after a sale, the shopkeeper earns a profit of 33.33%, and then what is the actual price of the t-shirt?

   a. Rs. 900

   b. Rs. 800

   c. Rs. 1,200

   d. Rs. 1,000

   e. Rs. 1,500

14. Convert 4.33333…..into p/q form

   a. 39/9

   b. 39/10

   c. 39

   d. None of the above

15. In how many ways can the digits 2,3,5,7 and 9 be placed to a form a three- digit number so that the higher order digit is always greater than the lower order digits? (Assume digits are all different)

   a. 8

   b. 9

   c. 10

   d. 15

16. Shobhit bought 300 litres of milk at Rs. 19 per litre. He added 200 litres of water to it and sold 400 litres of this milk at Rs. 20 per litre. To the rest, he added 10 litres more water and then sold it for Rs. 15 per litre. If he used mineral water that costs Rs.10 per litre, then the total money earned by Shobhit is:

   a. Rs. 4,000
   b. Rs. 4,150
   c. Rs. 1,800
   d. Rs. 1,850

17. Five different roads join a village to the nearby city. The number of different ways in which a person can go to the town and come back is:
   a. 10
   b. 20
   c. 25
   d. 5

18. $(15^* \, 25^* \, 100^* \, 30^* \, 10^* \, 42^* \, 4^* \, 14)$ will end with how many zeroes?

   a. 7
   b. 8
   c. 5
   d. 4

19. A and B can work separately and can develop questions in 12 and 15 days respectively. If they work alternatively on the questions and A begins question development, then in how many days will the work be completed?

   b. 5.43 days
   c. 9.35 days
   d. 13.25 days
   e. 10.15 days

20. If $X = 1 + 2^{1/2}$ and $y = 1-2^{1/2}$, then $X^2 + Y^2$ is:
   a. 2
   b. 3
   c. 6
   d. 0

21. If the principal increases to 169/144 times its initial Value in two years at compound interest, then a principal of Rs. 14,400 loaned for a year at the same interest will amount to:
   a. Rs. 16, 900
   b. Rs. 15, 600

c.   Rs. 16, 500

d.   Rs. 17, 000

22. If we permute 8 letters of the world 'computer' in 8! Ways, how many permuted words have 'p' and 'e' next to each other?

a.   720

b.   5040

c.   10080

d.   40320

23. Three cards are drawn at random from a pack of 52 cards. One is a jack and one is a queen.

a.   3/52

b. $3\,^4C1/^{52}C3$

c. $^4C1/^{52}C3$

d. $(^4C1)^3/^{52}C3$

24. What is the chance of throwing a sum greater than or equal to 7 in a throw of 2 dice?

a.   7/12

b.   1/3

c.   ¾

d.   13/36

25. What is the remainder when we divide 125! By 10^{31}?

a.   4

b.   0

c.   1

d.   5

COMPUTER PROGRAMING (25 Questions, 35 Minutes)

1.

A stack is implemented as a linear array A[0....N-1]. Giri writes the following functions for popping an element from the stack.

```
function POP(top,N)
{
If(X)
{
top=top-1
}
else
{
```

print "Underflow"
}

return top

}
Fill in the condition X

   a. top< N- 1
   b. top
   c. top>1
   d. top >= 0

2. What will be the output of the following pseudo-code statement?

   Integer a= 456, b, c, d=10
   b = a /d
   c = a-b
   print c

   a. 410
   b. 410.4
   c. 411.4
   d. 411

3. Ashima wants to print a pattern which includes checking and changing a variable's value iteratively.
   She decides to use a loop/condition. Which of the following options should she use such that the
   body of the loop/condition is executed at least once whether the variable satisfies the entering
   condition or not?

   a. For Loop
   b. While Loop
   c. Do While Loop
   d. Switch Case

4. Seema writes the code for a function that takes as input n, and even integer and calculates the sum
   of first n even natural numbers

   Function sum(n)
   {
   If(n equals 2)
   return 2
   else

```
return (n+sum(n-2))
end
}
```

She then calls the function by the statement, sum(30). How many times will the function sum be called to compute the sum?

      a. 1
      b. 30
      c. 15
      d. 16

5. In breadth-first search, which of the following option is true?

a. Beginning from a node,   first all its adjacent nodes are traversed.
b. Beginning from a node, each adjacent node is fully explored before traversing the next adjacent node.
c. Beginning from a node, nodes are traversed in cyclical order
d. None of these

6. Following program is to print the sum of all cubes, where the value of the cubes go from 0 to 100.

```
interger i=0, a //statement 1
integer sum=0;
a=(i*i*i)
while (i<100) // statement 2
{
sum = sum + a // statement 3
i=i+1
a=(i*i*i) // Statement 4
}
print sum
```
Does the program have and error? If yes, which statement would you modify to correct the program?

      a. Statement 1
      b. Statement 2
      c. Statement 3
      d. Statement 4
      e. No Error

7. A full binary tree with n leaves contains

a. 2n+1 nodes

b. log2 n nodes

c. 2n-1 nodes

d. 2n nodes

8. Trisha wants to use a data structure in which the cost of deleting, adding and traversing its elements is the same and constant. Which of the following data structures should she use?

   a. B- Tree
   b. AVL Tree
   c. Queue
   d. Stack

9. Ashok writes a piece of code, where a set of three lines occur around 10 times in different parts of the program. What programming concept can he use to shorten the length of the code

   a. Use for loops
   b. Use functions
   c. Use arrays
   d. Use classes

10. integer a = 40, b = 35, c = 20, d=10 comments about the output of the following two statements:

    print a *b/c – d
    print a *b/(c - d)

    a. Differ by 80
    b. Same
    c. Differ by 50
    d. Differ by 160

11. A sort, which uses the binary tree concept such that any number in tree is larger than all the numbers in the sub tree below it, is called

    a. Selection Sort
    b. Insertion Sort
    c. Heap Sort
    d. Quick Sort

12. A destructor may be invoked in which of the following situations?

    a. When the object is created
    b. When the object is assigned value 0.
    c. Only at the end of the code

d. When the scope of the object is over.

13. What is the minimum number of stacks of size n required to implement a queue of size n?

    a. One
    b. Two
    c. Three
    d. Four

14. Which of the given function prototypes can be considered to be overloaded (no ambiguity)?
    A: function my Func(integer Num, float me) // does not return anything
    B: function my Func(integer Num, double me) // does not return anything
    C: function my Func(character Num, float me) // does not return anything
    D: function my Func(integer Num, float me) // returns an integer

    a. A and B
    b. A, B and C
    c. A, C and D
    d. B, C, and D
    e. B and D

15. Sharma wants to make a program to print the sum of the first 10 multiples of 5. She writes the following program, where statement 5 is missing

    integer i=0
    integer sum=0
    while(i<=50)
    {
    sum=sum+i
    -    Missing Statement 5-
    }
    print sum

    Which of the following statement can be used for Missing Statement 5

    a. i = 5
    b. i = 5 * i
    c. i = i + 1
    d. i = i + 5

16. What does function overloading imply? (Consider assumptions as in C++)
    a. Many function definitions with same name, same arguments and different return types

b. Many function definitions with same name, different arguments
c. Many function definitions with same name same arguments
d. None of these

17. Mr. X writes the code for a function that computes the factorial of the input n

```
function factorial (n)
{
if(n equals 1)
return 1
else
-    Missing Statement –
end
}
```

Fill in the missing statement

a. Return factorial (n-1)
b. return n * factorial (n)
c. return n*(n-1)
d. return n*factor (n-1)

18. In C++, which of the following creates a pigeon object of class bird?
a. Pigeon bird
b. Bird pigeon
c. Object pigeon of bird
d. None of these

19. A full binary tree with n non-leaf nodes contains
a. (log n) nodes
b. n+1 nodes
c. 2n+1 nodes
d. 2n nodes

20. Shahaana has a 10,000 line code. She is trying to debug it. She knows there is a logical error in the first 25 lines of the code. Which of the following options will be an efficient way of debugging?
a. Compile the whole code and step into it line by line
b. Use an interpreter on the first 25 lines.
c. Compile the whole code and run it
d. None of these

21. While calculating time completely of an algorithm, the designer concerns himself/herself primarily with the run time and not the compile time. Why?
a. Run time is always more than compile time.

b. Compile time is always more than run time.

c. Compile time is a function of run time.

d. A Program needs to be compiled once but can be run several times.

22. Tarang writes an efficient program to add two upper triangular 10X10 matrices (elements on diagonal retained). How many total additions will his program make?

a. 100

b. 55

c. 25

d. 10

23. Which of the following statements is not true about tagged Union?

a. It is known as variant

b. Only one data type is used at a time

c. It holds values of variable sized different data types

d. The tag field determines which data types

e. The tag field determines which data type is being currently used

24. Consider an array on which bubble sort is used. The bubble sort would compare the element A[X] to which of the following elements in a single iteration?

a. A[X+1]

b. A[X+2]

c. A[X+2X]

d. All of these.

25. Sorting is not possible by using which of the following methods?

a. Insertion

b. Selection

c. Exchange

d. Deletion

LOGICAL ABILITY (24 Questions, 35 Minutes)

1. EHKN: FGLM::CFIL:

a. DEJK

b. DGJM

c. BEHK

d. BGJM

2. Re arrange the following in most meaningful order

1. Community
2. Locality
3. Family
4. Country
5. Person

   a. 4,1,2,3,5
   b. 4,2,1,3,5
   c. 5,3,2,1,4
   d. 5,3,4,2,1

3. Pick the odd man out
   a. ACFJ
   b. CEHL
   c. PRUY
   d. SUXZ

4. 3, 15, 35, 63…..
   a. 101
   b. 121
   c. 99
   d. 98

5. If RESULT is code as SFTVMU, then EXAM is code as :
   1. FWBO
   2. DYZL
   3. FYBN
   4. DXZL

6. Pick the odd man out
   a. AE5
   b. DF6
   c. HN14
   d. KP18

7. A lady is facing South-east. She turns 1800 in the clockwise direction, then 3600 in the anticlockwise direction. Which direction is she facing now?

   a. South
   b. South- West
   c. West
   d. South-East

8. A woman is facing south. She turns 45^0 in the clockwise direction and then 35^0 in the anticlockwise direction. Which direction is she facing now?

   a. South
   b. West
   c. South-West
   d. South- East

9. 8, 8, 6, 2, ...
   a. -4
   b. -3
   c. 3
   d. 4

10. D4P:H4L:P5R:
    a. V4N
    b. V5S
    c. U5M
    d. R4N

11. Saurabh had to go to his brother's paternal uncle's sister's husband's father-in- law's only granddaughter's house. Whose house did Saurabh have to go to?

    a. Sister
    b. Sister or cousin
    c. Brother
    d. Daughter

12. If

    A – B means A plus B

    A # B means A multiplied with B

    A / B means A is greater than or equal to B

    A ? B means A is less than B

    Using these symbols and taking the given statements as true, find out that which of the given conclusions is / are definitely true?

Statements:
(V # X) (V - X),X? Y AND Z/Y
Conclusions:
1. X? Z
2. (V - X)? (V # X)

a. Only 1 is true
b. Only 2 is true
c. Both are Correct
d. None of these is true

13. Based on the following passage find out which of the statement can be inferred from the passage

The world production of sugar has been reported to be very scarce as compared to the global scales of four years. The demand for sugar is extremely high but the supply has been low for quite some time now. This could be because some chief sugar growers have switched to high – priced jute. The price of sugar has soared in response to the phenomena of the demand supply disparity. The price of sugar now equals that of jute

a. Sugar production is profitable only when the price of sugar is as high as that, that of jute
b. The sugar growers who had shifted to the higher price jute, will now move to producing sugar
c. Demand for jute was higher than the demand for sugar, which made sugar growers shift their production
d. If there continues to be a shortfall in the production of sugar, the price of sugar may even exceed that of jute

14. Of all the fitness and wellness activities in India, Artisitic yoga is the new kind in town. It has successfully earned a pat on the back from whosoever has lent an ear to the latest advancements. Artistic yoga combines the suaveness of yoga and frenzy of modern cardio – vascular exercises. The technique involves performance of various aasanas and pranayams followed by walking on treadmill, stair climbing, cycling and so on. The activities are performed in a cyclic order and the aasana or pranayam that is done in the beginning is repeated in the end. This helps an individual at the physical level as well as mental and spiritual level, thus helping bring about a complete transformation of body, mind and soul.

Based on the above passage find out which of the following statements can be inferred from the passage

a. Artistic yoga helps in the overall development of those who practice it
b. Artistic yoga has been adopted by modern people since it is in fashion these days
c. All the activities performed at the beginning of artistic yoga are also repeated in the end
d. Since it combines yoga and exercises, artistic yoga will replace other fitness and wellness programs.

15. Four working ladies A, B, C and D are sitting around a table.
    (i) A sits opposite to the cook.
    (ii) B sits on the right side of the beautician.
    (iii) Teacher is on the left side of the accountant.
    (iv) D sits opposite to C.
    (v) C is to the right of the accountant.

    What are the occupations of A and B?
    a.   Accountant and Beautician
    b.   Accountant and cook
    c.   Accountant and Teacher
    d.   Teacher and Cook

16. Four working ladies A, B, C and D are sitting around a table.
    (i)   A sits opposite to the cook.
    (ii) B sits on the right side of the beautician.
    (iii) Teacher is on the left side of an accountant.
    (iv) D sits opposite to C.
    (v)   C is to the right of the accountant.

    Who is sitting to the left of beautician?

        a.   Cook
        b.   Accountant
        c.   Teacher
        d.   None of the above

17. Four working ladies A, B, C and D are sitting around a table.

        I.   A sits opposite to the cook.
        II.   B sits on the right side of the beautician.
        III.   Teacher is on the left side of an accountant.
        IV.   D sits opposite to C.
        V.   C is to the right of the accountant.

What is the occupation of C?
        a.   Beautician
        b.   Teacher
        c.   Accountant
        d.   Cook

18. Four working ladies A, B, C and D are sitting around a table.

      I.   A sits opposite to the cook.
      II.   B sits on the right side of the beautician.
     III.   Teacher is on the left side of an accountant.
     IV.   D sits opposite to C.
     V.   C is to the right of the accountant.

What is the occupation of D?
a) Accountant
b) Beautician
c) Teacher
d) Cook

19. A boy p is standing in the south-east direction. From there, he travels one and a half sides clockwise. Where is P now?
a) West
b) North-east
c) South-West
d) East

20. Arrange the following in most meaningful order
1. Key, 2. Door, 3. Lock, 4. Room, 5. Light-on

a. 5,1,2,4,3
b. 4,2,1,5,3
c. 1,2,3,5,4
d. 1,3,2,4,5

21. Problem questions:
Out of five parties, which party won the selection?
Statement:
(i) Party 'X' got the least number of votes.
(ii) Party 'y' got hundred more votes than party 'z'
a. Statement I along is sufficient
b. Statement II along is sufficient
c. Both Statement put together are sufficient
d. Both the Statement even put together are not sufficient
e. Either of the statements is sufficient

22. Problem question:
Geetanjali got the 15th rank among the girls in the class?
Statements:

(i) Shilpa ranked last among the girls.
(ii) Shilpa ranked next to Geetanjali

a. Statement I along is sufficient
b. Statement II along is sufficient
c. Both Statement put together are sufficient
d. Both the Statement even put together are not sufficient
e. Either of the statements is sufficient

2 more questions on data sufficiency