

**TOTAL QUESTIONS-10,**
**TIME – 10 MINUTES,**
**MARKS –10**
**MATH**

1. Which of the following is a row matrix.

(A)  $[0, \sqrt{3}]$

(B)  $\begin{bmatrix} 0 \\ -3 \end{bmatrix}$

(C)  $\begin{bmatrix} 2 & 3 \\ 4 & 7 \end{bmatrix}$

(D)  $\begin{bmatrix} -2 & 3 & 9 \\ 8 & 5 & 3 \end{bmatrix}$

 2.  $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 1 \end{bmatrix}$ ,  $B = \begin{bmatrix} 3 & -1 & 3 \\ -1 & 0 & 2 \end{bmatrix}$ , Find  $2A - B$ 

(A)  $\begin{bmatrix} -1 & 5 & 3 \\ 5 & 6 & 0 \end{bmatrix}$

(B)  $\begin{bmatrix} -1 & 3 & 5 \\ 5 & 0 & 6 \end{bmatrix}$

(C)  $\begin{bmatrix} -1 & 5 & 3 \\ -5 & -6 & 0 \end{bmatrix}$

(D) None

3. The zeroes of a polynomial can be expressed graphically, number of zeroes of polynomial is equal to number of points whose the graph of polynomial is –

(A) Intersect x axis

(B) Intersect y axis

(C) Intersect x axis or y axis

(D) None of the above

4. A polynomial of degree 'n' has

(A) only one zero

(B) At least 'n' zero

(C) At most 'n' zero

(D) Exactly 'n' zero

 5. If  $x^3 + 3x^2 + 3x = 7$ , then x is equal to

(A) 2

 (B)  $\sqrt[3]{6}$ 

(C) 1

(D) -1

6. Find the median from the following data.

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
No of student	12	26	40	12	10

(A) 18

(B) 27

(C) 21

(D) 23

7. The standard deviation of 1, 4, 5, 7 and 8 is 2.45. If 7 is added to each term, then what will be the new standard Deviation?

(A) 9.45

(B) 2.45

(C) 5.45

(D) 6.45

8. A card is drawn from a pack of 52 cards. The event E is that card is not an ace of spade.

 (A)  $\frac{51}{52}$ 

 (B)  $\frac{1}{52}$ 

 (C)  $\frac{1}{4}$ 

 (D)  $\frac{47}{52}$ 

9. The probability that a leap year contains 53 Friday.

(A)  $\frac{1}{7}$

(B)  $\frac{2}{7}$

(C)  $\frac{3}{7}$

(D)  $\frac{4}{7}$

10. If the sum of 5 consecutive integer is  $s$ , then the largest of those integer in terms of 'S' is

(A)  $\frac{S-10}{5}$

(B)  $\frac{S+4}{2}$

(C)  $\frac{S+5}{4}$

(D)  $\frac{S+10}{5}$

**ANSWER KEYS**

- |   |   |    |   |
|---|---|----|---|
| 1 | A | 6  | D |
| 2 | A | 7  | B |
| 3 | A | 8  | A |
| 4 | C | 9  | B |
| 5 | C | 10 | D |

**EXPLANATIONS**

1. (A);

The matrix in a row is called row matrix.

2. (A);

3. (A);

The number of intersecting of on x-axis is the number of zeroes

4. (C);

5. (C);

$$x^3 + 3x^2 + 3x + 1 = 8$$

$$\Rightarrow (x+1)^3 = (2)^3$$

$$\Rightarrow x = 1$$

6. (D);

7. (B);

With addition or subtraction SD will not change

8. (A);

There are only one card ace of spade

So its  $\frac{51}{52}$

9. (B);

It is  $\frac{1}{7}$  for non leap year and  $\frac{2}{7}$  for leap year

10. (D);

Average is  $\frac{S}{5}$  and largest is  $\frac{S}{5} + 2 = \frac{S+10}{5}$

**ALL THE POWER IS WITHIN YOU; YOU CAN DO ANYTHING AND EVERYTHING BELIEVE IN THAT; DON'T BELIEVE THAT YOU ARE WEAK. STAND UP AND EXPRESS THE DIVINITY WITHIN YOU"**

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