

**Dr. Ambedkar College, Deekshabhoomi, Nagpur.**

**Department Of Mathematics**

**Aptitude Test**

**Session: 2021-22**

Date: 4<sup>th</sup> October, 2021

**NOTICE:**

All the students of B.Sc. part I (sem I) are hereby informed that the Department of Mathematics will conduct Aptitude Test on Google forms on 5<sup>th</sup> October 2021 at 1.00 pm. All the students must attempt the Aptitude test.

<b>Date</b>	<b>Time</b>	<b>Event</b>	<b>Coordinator</b>	<b>Venue</b>
4 <sup>th</sup> October, 2021	1.00 pm to 2.00 pm	Aptitude Test	Prof S.M. Pawar, Dr. Jitesh Tripathi	Google forms

**Head of the Department**

**Prof.S.M.Pawar**

**Report of Aptitude Test:**

Department of Mathematics conducted Aptitude Test on 05<sup>th</sup> October 2021 for the students of B.Sc. Sem I online using Google forms. Questions pertaining to the basic knowledge were asked. This activity is important to analyze the problem solving skills in Mathematics and to check the basic subject understanding of the admitted students. With the help of this activity we identify the slow learners and fast learners. Special emphasis is given to slow

learners to improve their understanding of the subject. Students of BSc Sem I attempted the questions and some of the responses are attached with the report.

# Aptitude Test for BSc Sem 1 Mathematics 2021-22

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Name of Student \*

Tanaya khedkar

Mobile Number \*

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Email ID: \*

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Group \*

- PCM
- PEM
- PCOM
- SCOM
- PSM
- ECOM

Q1. What is the average of first 150 natural numbers? \*

2 points

- (A) 70
- (B) 70.5
- (C) 75
- (D) 75.5

Q2.  $|-4| + |4| - 4 + 4 = ?$  \*

2 points

- (A) 0
- (B) 2
- (C) 4
- (D) 8

Q3. For two or more algebraic expressions, the expression of highest degree which divides each of them without remainder is called \* 2 points

- L.C.M
- G.C.D
- rational expression
- irrational expression

Q4. Product of two Numbers/L.C.M = \* 2 points

- G.C.D
- L.C.M
- H.C.F + L.C.M
- H.C.F  $\times$  L.C.M

Q5. The law which does not hold in multiplication of matrices is known as \* 2 points

- distributive law
- Inverse law
- associative law
- commutative law

Q6. Factorization of  $x^3 + 8$  is equal to \*

2 points

- $(x + 2)(x^2 - x + 2)$
- $(x + 2)(x^2 + x - 2)$
- $(x + 2)(x^2 - 2x + 4)$
- $(x + 2)(x^2 + 2x + 4)$

Q7. The discriminant of  $2x^2 + 5x - 1$  is \*

2 points

- 25
- 30
- 33
- 35

Q8. The product of 3 cube roots of unity is/are \*

2 points

- 2
- 3
- 4
- 1

Q9. Roots of the equation  $9x^2 - 9x + 1 = 0$  are \*

2 points

- real, equal
- real, unequal
- imaginary
- irrational

Q10. If  $x < 0$  then  $|x|$  is equal to \*

2 points

- x
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Q11.  $f(x)$  is a continuous function and takes only rational values. If  $f(0) = 3$ , then  $f(2)$  equals \*

2 points

- (a) 5
- (b) 0
- (c) 1
- (d) None of these

Q12. The value of derivative of  $f(x) = |x - 1| + |x - 3|$  at  $x = 2$  is \*

2 points

- (a) -2
- (b) 0
- (c) 2
- (d) Not defined

Q13. If a function  $f$  is not defined at  $x = a$  then the limit  $\lim_{x \rightarrow a} f(x)$  as  $x$  approaches  $a$  never exists. 2 points

- True
- False

Q14.  $P$  is a point on the line segment joining the points  $(3, 5, -1)$  and  $(6, 3, -2)$ . If  $y$ -coordinate of point  $P$  is 2, then its  $x$ -coordinate will be \*

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- (a) 2
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Q15. The equations of y-axis in space are \*

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- (a)  $x = 0, y = 0$
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Google Forms

# Aptitude Test for BSc Sem 1 Mathematics 2021-22

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Aachal Katkar

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Email ID: \*

aachalkatkar0801@gmail.com

Group \*

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Group \*

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Email ID: \*

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