

GUJCET-ME 2026 Mathematics Question Paper (Memory-Based Questions)

Time Allowed :1 Hours	Maximum Marks :40	Total Questions :40
-----------------------	-------------------	---------------------

General Instructions

Read the following instructions very carefully and strictly follow them:

1. The Mathematics test consists of 40 questions. Each question carries 1 mark. For each correct response, the candidate will get 1 mark. For each incorrect response, $\frac{1}{4}$ mark will be deducted. The maximum marks are 40.
2. This Test is of 1 hour duration.
3. Use Black Ball Point Pen only for writing particulars on OMR Answer Sheet and marking answers by darkening the circle “●”.
4. Rough work is to be done on the space provided for this purpose in the Test Booklet only.
5. On completion of the test, the candidate must handover the Answer Sheet to the Invigilator in the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
6. The Set No. for this Booklet is **03**. Make sure that the Set No. printed on the Answer Sheet is the same as that on this Booklet. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of both the Test Booklet and the Answer Sheet.
7. The candidate should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet.
8. Do not write your Seat No. anywhere else, except in the specified space in the Test Booklet / Answer Sheet.
9. Use of White fluid for correction is not permissible on the Answer Sheet.
10. Each candidate must show on demand his/her Admission Card to the Invigilator.
11. No candidate, without special permission of the Superintendent or Invigilator, should leave his/her seat.
12. Use of Simple (Manual) Calculator is permissible.

Mathematics

1. If $f(x) = x^2 + 3x$, then $f'(x)$ is:

- (a) $2x + 3$
 - (b) $x + 3$
 - (c) $2x$
 - (d) x^2
-

2. The derivative of $\sin x$ is:

- (a) $\cos x$
 - (b) $-\cos x$
 - (c) $-\sin x$
 - (d) $\tan x$
-

3. Evaluate: $\int x \, dx$

- (a) x
 - (b) $\frac{x^2}{2} + C$
 - (c) $\ln x$
 - (d) $x^2 + C$
-

4. If a function is increasing, then its derivative is:

- (a) Negative
 - (b) Zero
 - (c) Positive
 - (d) Undefined
-

5. If $a + b = 5$ and $ab = 6$, find $a^2 + b^2$:

- (a) 25
 - (b) 13
 - (c) 11
 - (d) 17
-

6. The value of the determinant $\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix}$ is:

- (a) 10
- (b) -2
- (c) 2
- (d) 0

7. If $\log_a b = 2$, then $b = ?$

- (a) a^2
- (b) $2a$
- (c) $a/2$
- (d) $\sqrt{a}$

8. Number of permutations of 5 distinct objects is:

- (a) 25
- (b) 60
- (c) 120
- (d) 720

9. Distance between points (1,2) and (4,6) is:

- (a) 3
- (b) 4
- (c) 5
- (d) 6

10. Equation of line with slope 2 passing through origin:

- (a) $y = 2x$
- (b) $x = 2y$
- (c) $y = x + 2$
- (d) $y = 2$

11. Direction ratios of x-axis are:

- (a) (0,1,0)
- (b) (1,0,0)
- (c) (0,0,1)
- (d) (1,1,1)

12. Probability of getting a head in a fair coin toss:

- (a) 0
- (b) 1

- (c) $1/2$
 - (d) 2
-

13. Mean of first 5 natural numbers:

- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5
-

14. Value of $\sin^2 \theta + \cos^2 \theta$:

- (a) 0
 - (b) 1
 - (c) 2
 - (d) -1
-

15. If $\tan \theta = 1$, then $\theta =$:

- (a) 30°
 - (b) 45°
 - (c) 60°
 - (d) 90°
-