NMAT 2026 Question Paper with Solutions

Conducted by Graduate Management Admission Council (GMAC)

Time Allowed: 120 Minutes **Maximum Score: 360**

General Instructions

(i) This is the **memory-based** question paper of **NMAT 2026** (NMAT by GMAC), a computer-adaptive test conducted by **GMAC** from **2 November to 20 December 2026**.

(ii) The full test has **108 questions**, **36 in each section**. This PDF lists questions recalled by students from the **Quantitative Skills** and **Logical Reasoning** sections.

(iii) The duration of the test is **120 minutes**: **Language Skills 28 minutes**, **Quantitative Skills 52 minutes** and **Logical Reasoning 40 minutes**.

(iv) The scaled score ranges from **36 to 360** (12 to 120 in each section). There is **no negative marking**.

(v) You can choose the **order of the sections** and cannot skip a question. Questions marked *Type in the answer* have no options and need a numerical answer.

(vi) GMAC does not release the NMAT question paper, so the questions here are recalled by students and the wording may differ slightly from the live test.

1. If $\log_{10} 45 = m$ and $\log_{10} 80 = n$, find $\log 6$.

Correct Answer: $\frac{m+n-2}{2}$

Solution:

Concept:

- $\log(ab) = \log a + \log b$, and $\log 10 = 1$ for base 10.
- Write every number in terms of the logarithms of its prime factors, then solve for them using the given values.

Step 1: Break the numbers into primes $45 = 3^2 \times 5$, $80 = 2^4 \times 5$ and $6 = 2 \times 3$. Let $a = \log 2$ and $b = \log 3$. Since $5 = \frac{10}{2}$,

$$\log 5 = 1 - a.$$

Step 2: Write m and n in terms of a and b

$$m = \log 45 = 2b + \log 5 = 2b + 1 - a$$

$$n = \log 80 = 4a + \log 5 = 3a + 1$$

Step 3: Solve for a and b From the second equation, $a = \frac{n-1}{3}$. Substituting in the first, $2b = m - 1 + a$, so

$$b = \frac{m - 1 + a}{2} = \frac{3m + n - 4}{6}.$$

Step 4: Combine for log 6

$$\log 6 = a + b = \frac{2n-2}{6} + \frac{3m+n-4}{6} = \frac{3m+3n-6}{6} = \frac{m+n-2}{2}.$$

Step 5: Verify numerically $m = \log 45 \approx 1.6532$ and $n = \log 80 \approx 1.9031$, so $\frac{m+n-2}{2} \approx 0.7782 = \log 6$. The result checks out.

Step 6: Conclusion $\log 6 = \frac{m+n-2}{2}$.

Quick Tip to Solve: Express every number through $\log 2$, $\log 3$ and $\log 5$, and use $\log 5 = 1 - \log 2$.

2. If 4 men and 6 women can complete a task in 20 days and 8 men and 3 women can complete the same task in 30 days, in how many days can 24 men complete the task?

Type in the answer.

Correct Answer: 30 days

Solution:

Concept:

- If a group finishes a job in d days, it does $\frac{1}{d}$ of the job per day. Work rates of different workers add up.
- With two unknown rates and two conditions, form two equations and eliminate one unknown.

Step 1: Set up the work rates Let one man do m and one woman do w of the work per day. Then

$$4m + 6w = \frac{1}{20}, \qquad 8m + 3w = \frac{1}{30}.$$

Step 2: Eliminate the men's rate Doubling the first equation gives $8m + 12w = \frac{1}{10}$. Subtracting the second equation:

$$9w = \frac{1}{10} - \frac{1}{30} = \frac{2}{30} = \frac{1}{15} \Rightarrow w = \frac{1}{135}.$$

Step 3: Find the men's rate

$$4m = \frac{1}{20} - \frac{6}{135} = \frac{9}{180} - \frac{8}{180} = \frac{1}{180} \Rightarrow m = \frac{1}{720}.$$

Step 4: Find the time for 24 men 24 men do $\frac{24}{720} = \frac{1}{30}$ of the work per day, so they finish in 30 days.

Step 5: Verify with the second condition $8m + 3w = \frac{8}{720} + \frac{3}{135} = \frac{1}{90} + \frac{1}{45} = \frac{1}{30}$, which matches the given 30 days.

Step 6: Conclusion 24 men can complete the task in 30 days.

Quick Tip to Solve: Turn each condition into a per-day work-rate equation and eliminate one unknown.

3. Arun invested Rs. X in a scheme at compound interest for 2 years with 8% rate and received Rs. Y as interest. Bablu invested Rs. Y for 3 years at 10% simple interest and received Rs. 1747.2 as interest. Find the value of X.

Type in the answer.

Correct Answer: Rs. 35,000

Solution:

Concept:

- Simple interest $= \frac{P\,r\,t}{100}$. For compound interest, the interest for n years is $P\left[(1+r)^n - 1\right]$ with r as a decimal.
- Use the scheme whose data is fully known first, and carry its result to the other scheme.

Step 1: Use Bablu's simple interest to find Y Bablu invested Y for 3 years at 10%:

$$Y \times \frac{10 \times 3}{100} = 0.3Y = 1747.2 \Rightarrow Y = 5824.$$

Step 2: Write Arun's compound interest Arun invested X for 2 years at 8% and earned Y as interest:

$$Y = X\left(1.08^2 - 1\right) = X(1.1664 - 1) = 0.1664X.$$

Step 3: Solve for X

$$X = \frac{5824}{0.1664} = 35000.$$

Step 4: Verify $0.1664 \times 35000 = 5824 = Y$ and $0.3 \times 5824 = 1747.2$, which matches Bablu's interest.

Step 5: Conclusion The value of X is Rs. 35000.

Quick Tip to Solve: Find Y from the simple-interest data first, then use it in the compound-interest equation.

4. A number has 2 factors. The sum of the factors of the square of the number is 31. What is the cube of the number?

Type in the answer.

Correct Answer: 125

Solution:

Concept:

- A number with exactly 2 factors is a prime number.
- If p is prime, the factors of p^2 are exactly 1, p and p^2.

Step 1: Identify the type of number The number has exactly 2 factors, so it is a prime number p.

Step 2: Use the sum of factors of the square The factors of p^2 are $1,\ p,\ p^2$, so

$$1 + p + p^2 = 31 \ \Rightarrow\ p^2 + p - 30 = 0 \ \Rightarrow\ (p+6)(p-5) = 0.$$

Step 3: Choose the valid root $p = -6$ is not a prime number, so $p = 5$.

Step 4: Find the cube

$$p^3 = 5^3 = 125.$$

Check: the factors of 25 are $1, 5, 25$, and their sum is 31.

Step 5: Conclusion The cube of the number is 125.

Quick Tip to Solve: Exactly two factors means the number is prime.

5. Fact 1: Tarun, Bharat and Robin scored the highest marks in Maths, Physics and English, respectively.
Fact 2: Bharat scored more than Tarun in English.
Fact 3: Tarun scored more than Robin in Physics, and Robin scored less than Bharat in Maths.
Which of the following statements are also facts?
I. Bharat scored equal marks in Maths and English.
II. Tarun scored more than Robin in two subjects.
III. Of the three people, Robin scored the least.

Correct Answer: Only II

Solution:

Concept:

- In a 'must also be facts' question, a statement qualifies only if it follows with certainty from the given facts.
- Write down what each fact fixes, then check every statement against that list.

Step 1: Translate the facts Fact 1: Tarun scored the highest in Maths, Bharat in Physics and Robin in English. Fact 2: Bharat scored more than Tarun in English. Fact 3: Tarun scored more than Robin in

Physics, and Robin scored less than Bharat in Maths.

Step 2: Test each statement I: Nothing allows us to compare Bharat's Maths and English marks, so this is not a fact.

II: Tarun scored the highest in Maths, so he is above Robin there. Fact 3 gives Tarun above Robin in Physics. Tarun beats Robin in two subjects, so this is a fact.

III: Robin scored the highest in English and there is no information about total marks, so we cannot say Robin scored the least overall.

Step 3: Conclusion Only statement II must be a fact.

Quick Tip to Solve: List what each fact fixes, then check every statement against that list.

6. Eight people, Andrew, Bob, Carl, Daniel, Mooney, Nathan, Orvil and Peter are sitting in a row. In how many ways can they sit if there are exactly 2 people between Daniel and Nathan?

Type in the answer.

Correct Answer: 7200

Solution:

Concept:

- To place two people with exactly k people between them in a row of n seats, their seat numbers are i and $i+k+1$, so there are $n-k-1$ possible pairs of seats.
- Each pair of seats can be taken in 2 orders, and the remaining people are arranged in the remaining seats.

Step 1: Find the seat pairs With exactly 2 people between Daniel and Nathan, their seats are i and $i+3$, and $i+3 \leq 8$. The pairs are

$$(1,4),\ (2,5),\ (3,6),\ (4,7),\ (5,8),$$

which is 5 pairs.

Step 2: Account for the two orders In each pair, Daniel can sit on the left or on the right of Nathan, so there are $5 \times 2 = 10$ ways to seat these two.

Step 3: Arrange the other six people The remaining 6 people fill the 6 other seats in $6! = 720$ ways.

Step 4: Multiply

$$10 \times 720 = 7200.$$

Step 5: Sanity check The total number of arrangements is $8! = 40320$. The fraction with exactly 2 people between them is $\frac{7200}{40320} = \frac{5}{28}$, and 5 of the 28 possible seat pairs satisfy the condition. The two counts agree.

Step 6: Conclusion The people can sit in 7200 ways.

Quick Tip to Solve: Fix the seats of the two special people first, then arrange everyone else.