## GATE

## Marks VS Rank VS Score

How To Calculate GATE Score

## GATE Marks vs Rank Vs Score | How to Calculate GATE Score

Knowing the difference between GATE marks, ranks, and scores is essential for students who plan to take the upcoming GATE examination. The GATE Score Calculator helps calculate the accurate score in order to predict the rank. The confusion creates trouble among students, and so is the query of how scales and scores are assigned based on marks. Candidates should know GATE Marks vs Rank vs Score analysis to understand what they would achieve based on their GATE scores. With this in mind, we've created a detailed analysis of this comparison in order to help candidates understand the concepts clearly.

The GATE score is calculated with the help of normalised GATE marks. In GATE, an examination paper for a single branch is conducted in multi-sessions. Accordingly, for these papers, appropriate GATE marks, ranks, and score normalisation are done by the officials. This normalization is done considering any divergence in the difficulty levels of the question papers across various sessions. Read the entire article to learn every tiny detail about GATE marks vs rank vs score. To estimate the GATE Score, rank and marks it is elaborated in detail here.

## GATE Cutoff for all branches

## What is GATE Score Calculator?

GATE score calcullator is the method used to calculate the GATE score according to the official procedure. Both GATE marks and score are different from each other and a specifically defined formula is used to calculate the score. The actual score depends on various factors such as number of candidates, avareag scores achieved by the canidayes, etc.

GATE score calculator will not only help find the adequate score but will also help predict the rank. The prediction can be helpful in planning the steps of the candidates in the counselling session. Let us understand how to calculate the accurate GATE score.

MTech Courses without GATE

## What are GATE Marks?

The marks obtained in the GATE examination depend on the number of questions a candidate attempted and the number of questions the candidate has answered incorrectly. In the GATE examination, 13 marks are allotted to Engineering Mathematics for all Engineering branches. In the GATE examination, 15 marks are allotted to the General aptitude section. A candidate will receive their marks out of 100 marks (maximum marks). So GATE marks are very important criteria for GATE marks vs rank vs score analysis.

## Actual GATE Marks

For multiple choice questions, 1 mark is awarded for each correct answer, and $1 / 3$ point is deducted for each wrong answer. There are no negative points for numerical questions. Actual (raw) GATE scores are given for approximately 65 questions out of 100 .

## Shortlist criteria of top colleges and PSUs

## GATE Marks Normalization

The normalisation in the GATE exam is based on the assumption that "in all multi-session GATE shifts, the candidates' abilities are the same in all shifts". This assumption is justified since the number of candidates appearing in multiple session papers in GATE is large, and the session assignment process to candidates is random.

- In addition, it also ensures that the number of candidates assigned to each session is in the same order for the same multi-session communication.
- Based on the above and considering various normalisation methods, the committee arrived at the formula for calculating normalised scores for multi-session papers.

After evaluating the responses, the raw scores obtained by a candidate are converted into a normalised GATE score. The following formula calculates normalised grades for $\mathrm{CE}, \mathrm{CS}, \mathrm{EC}, \mathrm{EE}$, and ME (multi-session) work. The normalisation value of a jth candidate in the ith session Mij is given by:

$$
\widehat{M}_{i j}=\frac{\bar{M}_{t}^{g}-M_{q}^{g}}{\bar{M}_{t i}-M_{i q}}\left(M_{i j}-M_{i q}\right)+M_{q}^{g}
$$

where,

- Mij: These are the actual marks received by the jth candidate in the ith session
- Mtg: This is the average of the scores of the top $0.1 \%$ of candidates, all sessions combined.
- Mqg is the sum of the candidates' mean and the standard deviation in the article considering all the sessions.
- Mti: is the average score of the best $0.1 \%$ candidates in the 1 st session.
- Miq is the sum of the average scores and the standard deviation of the ith session.

After evaluating the responses, normalised scores are calculated using the above formula, which corresponds to the raw scores. The GATE score is calculated based on normalised scores.

## What is GATE Score?

The IIT uses the GATE score calculator formula to calculate the GATE score. The GATE score also depends upon the total number of candidates who have attempted the examination. If the GATE examination for a particular category is organised in multiple shifts, the IITs use the GATE score normalisation formula for GATE for calculating scores.

The GATE paper difficulty is also responsible for the GATE normalisation formula. The IIT, which organises the GATE exam, calculates the GATE score out of 1000. The various IITs have made this
normalisation formula based on GATE marks vs rank vs score analysis. The GATE score is calculated out of 1000 . This GATE score 2023 is computed based on the marks (normalised) obtained by the candidate and mean marks of the top $0.1 \%$ or top 10 candidates who appeared in the same paper, including multi-session.

## How to Calculate GATE Score?

The IIT, which organises the GATE examination, uses the formula shared below to organise the GATE examination and calculate scores in case of the multi-session. If the examination is organised in multi sessions, candidates can use the formula below to calculate the marks for the GATE Score 2023. The GATE score will be calculated using the formula,

## ( $\mathrm{M}-\mathrm{M}_{\mathrm{q}}$ ) <br> GATE Score $=\mathbf{S}_{\mathrm{q}}+\left(\mathrm{S}_{\mathrm{t}}-\mathrm{S}_{\mathrm{q}}\right)$ <br> $\left(M_{t}-M_{q}\right)$

In the above formulae,

- $M$ indicates the total marks obtained by the candidate ( the M is the actual marks for the session of the candidate in which the candidate has appeared and normalised marks for multisession papers)
- Mq indicates the qualifying marks of the candidate (in which the particular category candidate has appeared)
- Mt It indicates the mean marks of the top $0.1 \%$ of candidates.
- Sq indicates a score out of 350, the score assigned to Mq.
- St indicates a score out of 900 , the score assigned to Mt .

The Mq usually has a definite value, i.e. 25 marks, as it is kept out of 100 'or' ( $\mu+\sigma$ ), larger.

- The value of $\mu$ is the mean.
- The value of $\sigma$ is the SD (standard deviation) of marks for all the candidates who appeared in the particular branch paper.


## What is GATE Rank?

The various PSUs and IITs use the GATE rank/scorecard to provide admissions and jobs in various Engineering branches. The GATE rank is out for candidates who have qualified for the exam. The GATE score is based on the applicant's exam scores in the GATE examination.

What is a Good GATE Rank?
A good GATE rank is dependent upon the choices of the aspirant who is going to attempt the GATE exam;

- If the candidates aim for the PSU, then a good rank is considered under 200.
- If the aspirant is aiming for a master's in IIT, then a rank below 1000 is good, and for the master's from NIT, a rank under 2000 is considered good.
- The rank needed for the direct PhD from IITs and NITs is under 500, and the rank requirements for the MS courses differ as per the college but ranks under 700 are considered good.


## What is GATE Marks Vs Rank Vs Score?

GATE marks vs rank vs score is a detailed comparison of the performance evaluation of the candidates in the GATE exam according to the different shits in the exam and varied difficulty levels of the exam in those shits. This comparison will help candidates estimate their ranks and scores in the GATE exam based on their calculated marks.

If papers are organised in multiple sessions, the result of each candidate is estimated using the following three parameters.

- Actual GATE marks
- Normalised GATE marks
- GATE score

Let us see the GATE marks vs rank comparison for various disciplines in the GATE exam in the table provided below:

| Rank | Marks | CSE | Civil | Electronics | Electrical |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 - 1 0}$ | Mechanical | CS+ | $80+$ | $90+$ | $73+$ |
| $91+$ |  |  |  |  |  |
| $\mathbf{1 0 - 5 0}$ | $87-92$ | $75-80$ | $85-90$ | $67-73$ | $87-91$ |
| $\mathbf{5 0 - 1 0 0}$ | $85-87$ | $72-75$ | $78-85$ | $63-67$ | $84-87$ |
| $\mathbf{1 0 0 - 2 0 0}$ | $82-85$ | $68-72$ | $74-78$ | $60-63$ | $81-84$ |
| $\mathbf{2 0 0 - 5 0 0}$ | $79-82$ | $62-68$ | $70-74$ | $56-60$ | $77-81$ |
| $\mathbf{5 0 0 - 1 0 0 0}$ | $75-79$ | $56-62$ | $64-70$ | $50-56$ | $72-77$ |
| $\mathbf{1 0 0 0 - 2 0 0 0}$ | $71-75$ | $50-56$ | $57-64$ | $45-50$ | $66-72$ |
| $\mathbf{2 0 0 0 - 5 0 0 0}$ | $63-71$ | $40-50$ | $50-57$ | $38-45$ | $57-66$ |
| $\mathbf{5 0 0 0 - 1 0 0 0}$ | $51-63$ | $32-40$ | $40-50$ | $28-38$ | $46-57$ |

## GATE Marks vs Rank vs Score Sessions

Students can discover additional details about the GATE examination by comparing marks and ranks through detailed explanations in videos. Aspirants can check these videos by BYJU'S Exam Prep related to Expected Marks and GATE Ranks.

GATE Marks vs Rank vs Score Session - Mechanical Engineering
GATE Marks vs Rank vs Score Session - Electronics Engineering
GATE Marks vs Rank vs Score Session - Electrical Engineering
GATE Marks vs Rank vs Score Session - Computer Science Engineering

## GATE Marks vs Rank vs Score

We have structured a table to make things more transparent, as these are GATE marks vs rank vs score tables that will allow you to investigate the rank, marks, and scores of aspirants in different disciplines.

For Civil Engineering (CE)

| Rank | Marks | Score |
| :---: | :---: | :---: |
| $\mathbf{1}$ | 91.29 | 975 |
| $\mathbf{2}$ | 89.38 | 975 |
| $\mathbf{3}$ | 88.70 | 968 |
| $\mathbf{4}$ | 88.36 | 964 |
| $\mathbf{5}$ | 88.02 | 961 |
| $\mathbf{9}$ | 87.35 | 954 |

For Computer Science Information Technology (CS)

| Rank | Marks | Score |
| :---: | :---: | :---: |
| $\mathbf{1}$ | 83.33 | 1000 |
| $\mathbf{2}$ | 83 | 1000 |
| $\mathbf{4}$ | 79.67 | 1000 |
| $\mathbf{6}$ | 78.33 | 985 |
| $\mathbf{7}$ | 78 | 981 |

For Electrical Engineering (EE)

| Rank | Marks | Score |
| :---: | :---: | :---: |
| $\mathbf{1}$ | 94 | 1000 |
| $\mathbf{2}$ | 90.33 | 1000 |
| $\mathbf{3}$ | 89 | 1000 |


| $\mathbf{4}$ | 88.67 | 1000 |
| :--- | :--- | :--- |
| $\mathbf{5}$ | 88.33 | 1000 |
| $\mathbf{8}$ | 87 | 987 |
| $\mathbf{9}$ | 86.33 | 980 |
| $\mathbf{1 0}$ | 86 | 976 |

For Electronics Communication Engineering (ECE)

| Rank | Marks | Score |
| :--- | :--- | :--- |
| $\mathbf{1}$ | 80.67 | 1000 |
| $\mathbf{3}$ | 73.67 | 1000 |
| $\mathbf{4}$ | 73 | 1000 |
| $\mathbf{5}$ | 72.67 | 1000 |
| $\mathbf{6}$ | 72.33 | 1000 |
| $\mathbf{1 0}$ | 69.33 | 1000 |

For Instrumentation Engineering (IE)

| Rank | Marks | Score |
| :--- | :--- | :--- |
| $\mathbf{1}$ | 92.67 | 944 |
| $\mathbf{2}$ | 90.67 | 923 |
| $\mathbf{4}$ | 99 | 915 |
| $\mathbf{6}$ | 88 | 894 |
| $\mathbf{8}$ | 87.33 | 887 |
| $\mathbf{9}$ | 87 | 883 |
| $\mathbf{1 0}$ | 86.73 | 876 |

For Production Industrial Engineering (PI)

| Rank | Marks | Score |
| :--- | :--- | :--- |
| $\mathbf{1}$ | 88 | 1000 |
| $\mathbf{2}$ | 82.33 | 961 |
| $\mathbf{3}$ | 79.33 | 924 |
| $\mathbf{5}$ | 78.33 | 912 |
| $\mathbf{6}$ | 74.67 | 868 |

The GATE Committee can decide each GATE paper's qualifying mark/score. Suppose there's an issue, any dispute regarding the GATE marks, or any query regarding wrong questions. In that case, the IIT, which organises the GATE exam, holds the jurisdiction to contemplate and settle such dispute or claim in its native court.


Conceptual Clarity

LvE

LIVE Classes


Recorded Classes


Doubt Resolution


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