

Aspiring Minds' Campus Analysis Report

Dr Ambedkar Institute of engineering (B.Tech/B.E - 2020)



Aspiring Minds Assessment Pvt. Ltd.

Study of Students' Employability and their Performance in AMCAT

TABLE OF CONTENTS

Purpose of this Report	3
Introduction	5
Score Interpretation	9
Percentile Interpretation	9
Section No. 1 - Students\' Capability and Training Need Analysis	10
I. Inferences	12
II. Performance Summary	15
III. Training Suggestion	15
Section No. 2 - Students\' Employability	18
I. Perspective on Corporate Shortlisting Criteria	18
II. Employability Prospects	21
III. Bird's-eye-view of Employability	22
Section No. 3 - Intra Campus Comparison	25
I. Stream Comparison	25
Section No. 4 - Aspiring Minds' Concluding Words	30
Section No. 5 - Appendix	31
I. Candidates Score Table	31
II. Statistical Significance (Confidence)	38
III. National Average (Norm)	38
IV. Variance (Standard Deviation)	38
V. About Aspiring Minds	38

Purpose of this Report

The Aspiring Minds Campus Analysis Report provides a detailed analysis of the student quality and their employability in the industry. Our aim is to produce a report which is useful to the campus and includes a comprehensive comparison across different degrees, streams and batches. All such analysis will serve as an employability checkup for students and accordingly, the administration can prioritize its efforts to increase the overall student employability.

The various sections of this report give a broad view on numerous aspects related to the performance of students. These sections contain tables and charts which have been constructed after an in-depth analysis of AMCAT assessment data collected from your campus. We evaluate your students' performance in comparison to the nation-wide norms, which are calculated from a sample of entry-level job-aspirants over 22 states across India. This comparison reveals those areas in which your students fare better (or otherwise) than the average student assessed by us, and determines the employability of the students in diverse industries. This report will give a clear picture of the employability status of students eligible for the listed companies and also help the institute to improve on the weak areas figured by Aspiring Minds' analysis.

We also provide an intra-campus analysis to give an overview of the characteristics of top performing students in comparison to the rest, such that appropriate measures can be taken to help the low performers fare better.

On the basis of our analysis, we suggest certain recommendations for your campus. We are certain that these recommendations will help Dr Ambedkar Institute of engineering march towards its goal of providing excellent education to the students, which will result in better employability. Our recommendations, if properly implemented, will also help increase the standing of the campus amongst prospective students.

Data Snapshot

Campus	Dr Ambedkar Institute of engineering
Date of testing	23rd August 2019
Degree tested	B.Tech/B.E (858 students)
Number of students compared in each stream	
Computer Science & Engineering	181 students
Information Science Engineering	47 students
Electronics and Communication Engineering	172 students
Electronics and Instrumentation Engineering	35 students
Telecommunication Engineering	53 students
Electronics and Electrical Engineering	52 students
Mechanical Engineering	147 students
Civil Engineering	116 students
Industrial Engineering and Management	35 students
Other	20 students

Note: some students either did not enter their stream or entered it incorrectly. These students have not been included in any stream. Thus total students tested could be more than students in all reported streams.

Introduction

This report is based on the results of AMCAT assessment conducted at your campus on 23rd August 2019 where a total of 858 students were tested. AMCAT is a two and half-hour adaptive test with multiple modules including aptitude, domain skills and personality assessment. It is India's largest employability test and is taken by more than 30,000 students every month. Being India's only adaptive employability test, it is used as a benchmark for hiring by several companies across India. The details of AMCAT assessment are as follows:

AMCAT Modules
I. English Comprehension
II. Quantitative Ability
III. Logical Ability
IV. Computer Programming
V. Electronics and Semiconductor Engineering
VI. Financial and Banking Services
VII. Mechanical Engineering
VIII. Electrical Engineering
IX. Civil Engineering
X. Aspiring Minds Personality Inventory (AMPI)

I. English Comprehension

Familiarity with the English Language in its various nuances is an essential skill, especially in the current climate of global networking. Ideally, any recruitment should involve a test of skills in handling the language in ways that promote the objectives of the company. Needless to state, an appropriate test is necessary.

Our English test uses a variety of internationally standardized resources for framing questions aimed at determining the candidate's ability to a) understand the written text (b) comprehend the spoken word and (c) communicate effectively through written documents. The test broadly covers the following areas:

- a. A wide-ranging vocabulary to cope with general and specific terminology.
- b. Syntax and sentence structure, the incorrect use of which distorts meaning and becomes a communication hurdle.
- c. Comprehension exercises designed to test a candidate's ability to read fluently and understand correctly.
- d. The ability to understand and use suitable phrases, which enrich the meaning of what is conveyed.

Time management and accuracy in conformity with the examiner's criteria.

II. Quantitative Ability

The Quantitative Ability assesses the ability of the candidate in following two aspects:

- a. Basic understanding of numbers and applications
This section tests whether the candidate has understanding of basic number system, i.e., fractions, decimals, negative, positive, odd, even numbers, rational numbers, etc. The candidate should know how to do basic operations on these numbers, understand concepts of factors/divisibility and have good practice of algebra. Apart from operations on numbers, the candidate should know how to convert a real-world problem into equations, which is to be solved to find an unknown quantity. The candidate is tested on Word Problems representing various scenarios to assess the same.
- b. Analytical/Engineering Maths
These are aspects of mathematics needed for Engineering disciplines and data analysis. This includes permutation-combination, probability and understanding of logarithms.

III. Logical Ability

The Logical Ability section assesses the capacity of an individual to interpret things objectively, to be able to perceive and interpret trends to make generalizations and be able to analyze assumptions behind an argument/statement. These abilities are primary for success of a candidate in the industry. Specifically, these are divided into following sections:

- a. Deductive Reasoning: Assesses the ability to synthesize information and derive conclusions.
- b. Inductive Reasoning: Assesses the ability to learn by example, imitation or hit-and-trial. This also provides an indication of how creative the individual is.
- c. Subjective Reasoning: Assesses the critical thinking ability of an individual to see through loopholes in an argument or group of statements.

All these abilities are tested both using numerical and verbal stimuli. Coachable questions have been identified and removed.

IV. Computer Programming

The Computer Programming Principles module evaluates the suitability of the candidate for the software industry. It not only tests the knowledge and application of basic constructs of programming, but also concepts of data structures, algorithm analysis and object-oriented-programming.

The test is language-independent and all programming questions use a pseudo-code. Significant effort has been made to exclude memory-based and rote-learning questions. The test contains questions on debugging programs, finding the output of programs,

completing incomplete programs, finding complexity of algorithms, questions on implementation and operations on different data structures, etc.

The test contains the following sections:

- a. Structure and constructs of Computer Programs
- b. Data-structures and Basics Algorithms
- c. Object Oriented Programming Concepts

V. Electronics and Semiconductor Engineering

The Electronics and Semiconductor test assesses the suitability of the candidate for the SOC, Embedded Systems, VLSI design, etc. companies. This test together with that of Computer Programming assesses the suitability of candidates for EDA companies. The test has the following sections:

- a. Analog Electronics
 - 1. Basic Components, their operations and Circuit Analysis
 - 2. Active Components, Large, Small Signal and Circuit Analysis
 - 3. Frequency domain and time domain analysis of systems, Feedback and Stability
 - 4. Opamp based circuits and analysis
- b. Digital Electronics
 - 1. Boolean Algebra, Minimization of Boolean Functions
 - 2. Implementation and Analysis of logic gates
 - 3. Sequential blocks - flip-flops and latches
 - 4. Digital Circuits and Blocks
 - 5. State Machines and design of Complex sequential circuits

VI. Financial and Banking Services

In the current market, there are a number of employment opportunities in development, analysis and sale of financial products. All these profiles require, in some proportion, theoretical and practical knowledge of Finance. This module is targeted to test the skills of the students with regard to these job profiles.

The module consists of testing basic understanding of macroeconomics, finance and taxation. Apart from these, it tests the understanding of markets, which includes stocks, mutual funds, derivatives and bonds. Keeping in mind the requirement of the industry, the module also contains questions on insurance fundamentals and banking products.

VII. Mechanical Engineering

In this module, a student is tested for his understanding of mechanical engineering - theoretical and practical knowledge. Questions from different areas in this subject are

asked so as to assess a student on his complete knowledge of the subject. The test has the following sections:

- a. Manufacturing Science
- b. Thermodynamics & IC Engines
- c. Fluid and Machine Mechanics

VIII. Electrical Engineering

The Electrical Engineering module has been designed to assess a candidate's knowledge working in power sector. The module is meant for B Tech. students who may be freshers or the students who may be exposed to industry for one to two years. The module checks for the concepts which would be used by the engineers in everyday working. The module consists of both conceptual and practical aspects of the subject.

IX. Civil Engineering

Civil Engineering module assesses a student's skills, knowledge and understanding of the core ideas involved in the branch of civil engineering. The module focuses on testing a student on theoretical knowledge and practical concepts which will help him perform a good job as an engineer in the industry.

X. AMPI: Aspiring Minds Personality Inventory

It is the first personality inventory designed for personality analysis of Indian college graduates for the purpose of inputs to corporate personnel selection. AMPI is based on the five factor model, which is by far the only scientifically validated and reliable personality model. Several scientific studies across the world have shown that different combinations of the five factor personality traits strongly correlate to different job profiles and predict long term job performance reliably. AMPI analysis will be a worthwhile objective input to the corporate selection process and help find better matches to job profiles. The AMPI questionnaire asks for candidate's reaction under various scenarios, his/her beliefs, likes-dislikes to ascertain his/her personality factors. Factors map to traits such as candidate motivation, self-discipline, sociability, persistence, confidence, emotional stability, etc. which both intuitively and scientifically map to job requirements. AMPI builds in a strong proprietary methodology to control distortions due to social desirability and answer-faking.

AMPI has been designed specifically keeping the fresh Indian graduates in mind. Context is very important in design of items. AMPI items take into consideration the cultural sensibilities of Indians, the scenarios students face at college/home, also depending on the socio-economic status of the target population. This brings AMPI into a unique position as compared to generic/Western inventories, which do not suit our target population and fail miserably.

AMPI's scoring is based on statistical techniques of factor analysis, polytomous item analysis and structural modeling. Norms have been set on large candidate assessment done on final year graduates. Testforms are auto-generated such that each factor can be reliably predicted in feasible amount of time. Test-retest reliability and test validity are statistically guaranteed.

AMPI traits are:

- a. Extraversion
- b. Conscientiousness
- c. Emotional Stability
- d. Openness to Experience
- e. Agreeableness

Score Interpretation

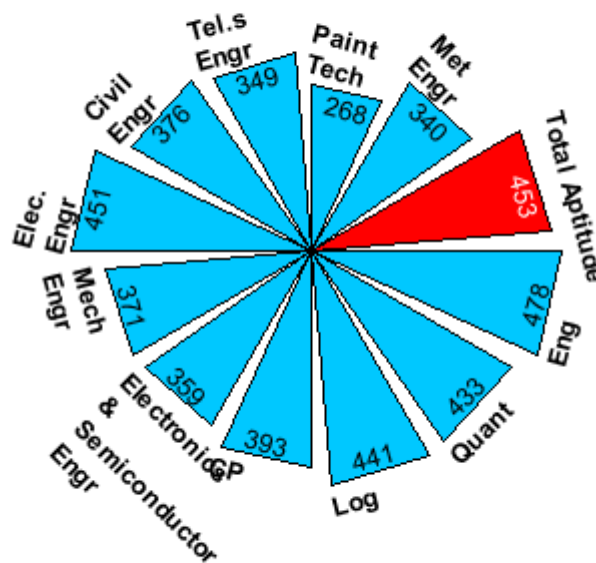
All scores lie between 100 and 900. The scores are normalized on a Gaussian curve using statistical techniques. The scores follow global standards of validity and reliability. They are valid for three years and remain consistent on repeat testing unless the candidate's ability improves because of sustained long term efforts.

Percentile Interpretation

The percentile of the candidate is calculated over a National average group based on the percentile of all students tested by Aspiring Minds. Several statistical studies conducted demonstrate clearly that the percentiles are stable for a year and will not vary more than two percentile points. The percentile is a very important metric and gives an idea of the candidate's rank in comparison with all graduates nationwide.

Section 1 - Students' Capability and Training Need Analysis

This section shows the overall performance of the campus students, along with their average and standard deviation in each module. In Campus Aptitude and Skill Chart below, BLUE triangles represent average score of your campus in each module. The RED triangle represents Total Aptitude score, which comprises of English, Quantitative Ability and Logical Ability scores.



Campus Aptitude And Skill Chart

The Campus Ability Table below shows the campus average scores (percentiles) and their standard deviations in comparison with the National norms. It also indicates if the difference between the Campus Average score and the National Average score is significant and if so, at what confidence level. Norm is the National Average of all the candidates tested on AMCAT. Confidence level refers to the likelihood (ranging from 0 to 100%) that the results observed in the study are real, and not due to chance. In this analysis, if confidence level is less than 90%, it indicates that the difference between the Campus Average and the National Average is not significant and that both the scores are equivalent. For confidence level greater than or equal to 90%, the difference between the Campus Average and the National Average is considered significant. If the difference is positive, on an average, the campus students are performing better than the National Average and vice versa.

Campus Ability Table

Modules Attempted	Campus Average Percentile	Campus Average (Std. Dev.)	National Average (Std. Dev.)	Difference (Campus - National)	Confidence	Is Significant? ¹
English Comprehension	51%	478 (112)	475 (100)	3	100%	Yes
Quantitative Ability	30%	433 (125)	495 (115)	-62	100%	Yes
Logical Ability	41%	441 (73)	465 (101)	-24	100%	Yes
Computer Programming	48%	393 (41)	400 (116)	-7	29%	No
Electronics and Semiconductor Engineering	73%	359 (112)	310 (80)	49	100%	Yes
Mechanical Engineering	14%	371 (112)	450 (75)	-79	100%	Yes
Electrical Engineering	75%	451 (104)	380 (103)	71	100%	Yes
Civil Engineering	85%	376 (76)	300 (72)	76	100%	Yes
Telecommunications Engineering	60%	349 (112)	330 (80)	19	92%	Yes
Paint Technology	1%	268 (107)	500 (101)	-232	99%	Yes
Metallurgical Engineering	5%	340 (102)	500 (100)	-160	98%	Yes
Automotive Engineering	68%	438 (153)	400 (80)	38	86%	No
Fundamentals of Chemistry	71%	379 (67)	335 (80)	44	88%	No
Industrial Engineering	1%	329 (98)	449 (54)	-120	100%	Yes
Production Engineering	11%	392 (90)	463 (57)	-71	97%	Yes
Instrumentation Engineering	26%	360 (75)	425 (101)	-65	100%	Yes
Food Science	9%	288 (65)	425 (100)	-137	100%	Yes
Computer Science	55%	397 (92)	380 (125)	17	100%	Yes
Basic Computer Literacy	96%	599 (141)	425 (100)	174	100%	Yes
Information Gathering and Synthesis	28%	477 (171)	550 (125)	-73	100%	Yes
Aeronautical Engineering	23%	378 (75)	450 (100)	-72	99%	Yes
Total Aptitude	41%	453 (85)	478 (105)	-25	100%	Yes

¹ if confidence level is less than 90%, it indicates that the difference between Campus Average and National Average is not significant and that both the scores are equivalent.

Note: Automata Fix, Marketing, Chemical Engineering, VLSI and Embedded Systems, Financial and Banking Services, Housekeeping, Fundamentals of Physics and Basic Biology modules are not considered as they were attempted by less than 5 students in your campus.

I. Inferences

1. English Comprehension

Communication is the key to building relationships and trust that leads to success in business. English is a corporate language and hence, the ability to read and comprehend this language effectively is essential to qualify for all types of job profiles, whether it is technical or non-technical. It is seen that, on an average, the scores of your students is **equivalent to the National Average** in English module. However, matching National Average is not an ambitious aim. Your students should aspire to score higher. With regular practice and proper guidance from the faculty, students can boost their scores. Conducting regular tests will not only give them confidence but will also result in better understanding of concepts.

2. Quantitative Ability

Quantitative Ability measures a person's ability to deal with numbers and real-world problems quantitatively and mathematically. It is the ability to convert a real world problem into equations which can then be solved to find the result. This module is designed to measure a candidate's basic maths and algebraic skills, his/her understanding of basic quantitative concepts and his/her ability to reason quantitatively, solve quantitative problems and interpret graphical data. In Quantitative Ability module, your campus has **not performed well and on an average, their scores are much lower than the National Average**. Your students should work on the understanding of basic concepts in this module. They should practice a variety of questions from all the areas of this module, gradually moving to higher difficulty levels.

3. Logical Ability

The purpose of Logical Ability module is to test students' logical reasoning skills and to check their intuitive ability, decision making capability, problem solving approach and other areas which are important from a company's perspective. People with strong Logical Reasoning are quicker to perceive and interpret things objectively. Therefore, proficiency in this module is desired for all job profiles. Students of your institute, on an average, have **scored equivalent to the National Average** in Logical Ability module. Proper guidance from the faculty and focused efforts from students are required to score higher than the National Average. Students should solve different kinds of logical puzzles and play logical games regularly. This will sharpen their skills tremendously, thereby increasing the employability of your students.

4. Computer Programming

Computer Programming module assesses a candidate's programming skills. The sub-categories of this module are basics of programming, data structures, object oriented programming and theoretical computer science (complexity, data types, etc.). A high score in this module is an indicator of proficiency in the role of software engineer or developer. Your campus, on an average, has **scored equivalent to the National Average** in this module. Students' performance indicates that they have good knowledge of the underlying concepts of programming, but they need to practice questions of advanced concepts like data structures, object oriented programming etc. to master this subject. Proper teaching with regular tests will surely aid in increasing students' ability to answer more questions correctly.

5. Electronics and Semiconductor Engineering

The Electronics and Semiconductor module tests the students' understanding of analog and digital electronics. Students need expertise in this area to pursue a career in fields such as VLSI Design, Embedded Systems, Computer-Aided-Circuit Design - in general, the

Semiconductor and SOC industry. The topics included in this module are taught to students pursuing Electronics/Electrical engineering. In some colleges, it is also taught to students pursuing engineering in Computer Science, Instrumentation, etc. On an average, the scores obtained by students of your campus are **slightly higher in comparison to the National Average** of students pursuing Electronics related disciplines. This is good, but further improvement is required. It seems that the basic concepts of the students are clear, but they need more practice of questions to be proficient in applying the concepts. Giving weekly or bi-weekly assignments to students and making them solve problems at the back of every chapter from standard textbooks is a great way to further increase the conceptual understanding of students and develop proficiency in applying those concepts in various ways and situations.

6. **Mechanical Engineering**

Mechanical engineering module assesses a candidate's understanding on core concepts including mechanics, kinematics, thermodynamics, material science, structural analysis, etc. It requires a candidate to apply the principles of physics and material science for analysis, design, manufacturing and maintenance of mechanical systems. For any job profile in core mechanical sector, a student is required to do well in this module. Your campus performance has been below average. Students of your campus have, on an average, **scored significantly lower than the national average**. We suggest that the students need to extensively read about the core subjects like Production engineering, Thermodynamics, Machine design, Kinematics, etc - right from the basics. Channelized topic selection and proper devotion of time to important topics could go a long way in improving the student's performances. Also more emphasis should be given to conceptual and practical based teaching.

7. **Electrical Engineering**

Electrical engineering module assesses a candidate's knowledge on a range of subfields like analog and digital electronics, power engineering, control systems and signal processing. The module deals with the study and application of electricity, electronics and electromagnetism. In order to build a career in fields such as Power sector, Control and electronics, a student is expected to do well in this module. The students of your institute have done extremely well in Electrical engineering module, on an average, **scoring higher than the National Average with a significant difference**. Our analysis suggests that they seem to have a solid understanding of all the relevant areas in Electrical engineering. Students should extensively read industry-specific electrical systems like Q-meters, oscilloscopes etc and practice enough to remain in touch with the field.

8. **Civil Engineering**

Civil engineering module requires a student to have a basic understanding of core topics such as structural, geo technical, material, transportation engineering etc, so that a student is able to apply this knowledge in planning, design, construction and maintenance of structures (like roads, building, etc). The module tests the student to have a basic knowledge of general principles of mechanics and construction and requires the candidate to apply these principles in practical based problems. The students of your institute have performed very well in Civil engineering module, on an average, **scoring significantly higher than the National Average**. While you display a solid understanding of the concepts in civil engineering module, you should challenge yourself to more advanced and niche topics like traffic engineering and mapping concepts in surveying.

9. **Automotive Engineering**

Automotive engineering module incorporates elements of mechanical, electrical,

electronic and safety engineering as applied to the design, manufacture and operation of motorcycles, automobiles, cargo-trucks etc. The module emphasizes on applied automobile design and testing, experimental/scientific methods related to automobile engineering and auto - Maintenance etc. Students need to do well in this module in order to build career in profiles related to automobiles - design, research and development and production. The performance of your students has been decent with students, on an average, **scoring equivalent to the national average**. Further improvement is possible if appropriate corrective measures are taken. With proper guidance and regular practice of more difficult topics - which have high numerical as well as diagrammatic portion - like Clutches and Brakes, transmission & differential systems and axle & steering systems, your students will be able to exceed the National average.

10. **Industrial Engineering**

Industrial engineering module checks for student's understanding of basic concepts in operation research and management, management science, systems engineering, ergonomics and safety engineering. The module draws upon knowledge of various principles and methods of engineering analysis, design and management. To build a career in fields such as Production, Operations, Quality control, Logistics, Process and plant management etc, a candidate is expected to do well in this module. It is a matter of deep concern that the students of your campus, on an average, have **scored significantly lower than the National Average** in this module. The basic concepts of students in Industrial engineering are not clear. We suggest that students start from the simpler topics which are more theoretical based such as Facility design, Quality management, etc, then move on to more conceptual and numerical based topics like engineering costing and reliability and finally take up advanced topics like operation research and management.

11. **Production Engineering**

Production engineering module requires a candidate to have an understanding of various manufacturing processes, metal cutting & tool design, metrology, machine tools, Computer Integrated Manufacturing, etc. Students need to be well versed in this area in order to pursue a career in public and private sector manufacturing organizations engaged in design, development and implementation of new production processes, information and control systems, computer controlled inspection, assembly and handling. Performance of your students in production engineering is not satisfactory. Their scores, on an average, are **significantly lower than the National Average**. This gap has to be filled with proper guidance. We suggest that students start from basics - emphasis should be given to core subjects like various processes and polymer materials and their applications before moving to more niche topics like computer integrated manufacturing and metrology.

II. Performance Summary

From the above analysis, it is clearly visible that the **performance of the students at your campus is good in Electronics and Semiconductor Engineering, Electrical Engineering and Civil Engineering**, which is commendable. They have performed **satisfactory in English Comprehension, Logical Ability, Computer Programming and Automotive Engineering**, whereas extra efforts can make a tremendous difference in performance. However, the students' performance is **not satisfactory in Quantitative Ability, Mechanical Engineering, Industrial Engineering and Production Engineering**, therefore additional training sessions and corrective measures are required by the campus authorities. Methodologies such as mock tests, assignments and extra classes can become a valuable strategy for the benefit of students. The campus can also include proactive mentoring sessions for weak students and review their skills in the given area(s). Another approach can be to hold training sessions focusing on comprehensive guidance for the students to excel in their weak areas. The gain resulting from these training sessions and your continuous support will allow overall development of the student and further enhancement in their abilities.

III. Training Suggestions

This section lists areas where your students need to improve on the basis of their performance in the AMCAT. For each module, according to the degree of improvement needed, appropriate suggestions have been provided.

Campus Training Requirement Table

Area to Improve Upon	Degree of Improvement	Suggestion
English Comprehension	Moderate	Encourage playing games like Scrabble, Crossword, etc. in order to improve their English vocabulary. You can try placing such word-games in the campus library. Guide the students to scribble key points while reading any passage/paragraph. This will help them understand the essence of the text and find answers to passage-based questions easily.
Quantitative Ability	Very Strong	Train the students to follow the clues and directions given in the questions well. Once the question is understood in a clear manner, half the job is done. Encourage pupils not to read mathematics, but to write and practice. That is the only way to learn mathematics. Time-honored mock tests should be conducted for the students so that they are able to judge themselves.
Logical Ability	Moderate	Encourage students to solve different types of puzzles and questions which need logical thinking. Help them understand the problem clearly in their minds before they start solving it. Advise students to develop their own notations so that they

Area to Improve Upon	Degree of Improvement	Suggestion
		can represent the problem using proper symbols, diagrams etc.
Computer Programming	Moderate	Sharpen your students' skills by making them design programs for complex problems. Try giving them more challenging assignments. Choose a high-level language like C/C++/Java and let the students try implementing different programs (pattern/series generation, arithmetic operations, decision-making, use of functions, etc.) in the chosen language. Or, in other words, practical exposure to programming should be encouraged.
Electronics and Semiconductor Engineering	Very Less	Good understanding of combinational logic, circuit analysis and design is required to excel in this module. We suggest that the students should keep practicing questions in these areas to keep their knowledge updated. Make sure they go through various examples, understand and practice them. Then, make them solve multiple-choice-questions under time constraint.
Mechanical Engineering	Very Strong	Industrial visits form an essential part of a mechanical engineering curriculum. Exposing students to outside environment - how everything works in a core sector - could form a perfect platform to help students apply theoretical concepts in practical environment. Manufacturing science and Thermodynamics form the backbone of mechanical engineering. For Manufacturing science, we suggest students to initially concentrate on all the manufacturing and metal cutting processes. 'Manufacturing Processes' by Raghuvanshi is a good book to build concepts pertaining to all these processes. Thermodynamics, on other hand is more reasoning based with high percentage of numerical portion. The book we recommend for this purpose is 'Thermodynamics' by Cengel and Boles. One of the best ways to improve fundamental skills in this module is by providing students with direct hands on experience. Workshops and machinery shops with appropriate facilities for welding, metal cutting tools, lathes etc is one possible solution.
Electrical Engineering	Slight	In electrical engineering labs, students should be encouraged to explore and assemble various circuits, so that they can learn things practically.
Civil Engineering	Slight	It is important for a civil engineer to be updated with the latest technology and innovation taking place in the infrastructural industries. Therefore, it is important to

Area to Improve Upon	Degree of Improvement	Suggestion
		regularly conduct seminars and presentations so that students stay ahead of the curve on cutting edge information.
Automotive Engineering	Moderate	Encourage students to join automotive organizations/clubs like SAE and participate in competitions like BAJA. These form a perfect platform for students to apply their subject knowledge. Organizing small workshops and conducting industrial visits that provide real world experience to students is one way of enhancing student's knowledge.
Industrial Engineering	Very Strong	Industrial engineering involves optimization of resources. Therefore, students should be encouraged to develop projects that are more simulation based and that involve management of resources. Industrial Engineering is a numerical and application based subject, so it is important that teaching does not involve students to memorize the formulae used in operation research, reliability, engineering costing, etc. It would be lot simpler if they could understand the logic of the derivation used to arrive at the formulae. This will help them to solve the numerical more easily. Since Industrial engineering involves a lot of numerical problems and requires good mathematical and problem solving skills, students should be provided with weekly or bi-weekly assignments to practice.
Production Engineering	Very Strong	Industrial visits to large manufacturing or core companies help a student to relate and apply those theoretical concepts in real world environment. Students should avoid memorizing the various manufacturing and machining processes. It would be a lot easier to understand the mechanism involved and relating the processes to real world scenarios. Seminars and presentations on manufacturing processes followed by various production companies go a long way in strengthening the knowledge and understanding of the students.

Section 2 - Students' Employability

This section gives you an approximate idea about the kind of companies your students are competent for. This section also provides an insight into the criteria used by different companies for their hiring process. Additionally, an estimate of the employability of your campus students in different sectors is mentioned. In order to improve employability prospects, domains in which your students need to focus their efforts are also listed.

I. Perspective on Corporate Shortlisting Criteria

In this section, we discuss the different kind of job profiles available for fresh graduates. For each domain, we discuss the nature of the job and the kinds of skills required to succeed in the particular job profile.

- **IT Services**

These types of service companies have large training setups of their own. They provide system integration solutions, software application development, testing solutions and many other services. For large services companies, Computer Programming score is not an important criterion. They look for candidates with acceptable English and Logical Reasoning along with strong Quantitative Ability skills. A good score in computer programming module is an advantage. HCL, TCS, Wipro, Satyam, Polaris etc are some of the major large scale service based companies.

- **IT Products**

These types of product based companies analyze the future requirements of market and come up with exact solutions and product enhancements. That is, they develop their own products/applications based on the market requirements. These companies primarily look for good programming skills and quantitative ability. Since the job does not include interaction with clients, they do not focus on good scores in English. Yahoo, Microsoft, Texas Instruments, etc. are some of the product based technology companies.

- **Electronics & Semiconductor**

The companies in this sector provide job opportunities which fall under one of these two categories: electrical power generation/transmission and its application. One can further specialize in research, testing, design & development or production & manufacturing. Most electrical engineering strongly prefer candidates with a degree in electrical engineering or related field and hence candidates are expected to have sound domain knowledge apart from being strong in analytical & problem solving skills.

- **ITeS and BPO**

Business process outsourcing companies can be aptly defined as those that act to utilize the services of a third party in order to perform its back office operations. The BPO market is forecast to hit \$450 billion by 2012. These companies look at moderate to outstanding/

exceptionally good English, depending on whether they have national or international clients. The other parameters they use for short listing are acceptable Logical Reasoning and Computer skills. GE Capital, Convergys, Wipro Spectramind and Dell are some of the prominent BPO entities.

- **Hardware and Networking**

These companies specialize in Hardware and Network Support and basically provide integrated solutions for business enterprise applications, networking equipment and network management. That is they help manage organization's computing resources up and running. These companies primarily look for average quantitative and logical ability. Since the job does not include a lot of interaction with clients, they do not necessarily require good scores in English Comprehension. Cisco, Hewlett Packard, Nortel, NEC, Citrix and Netgear are some of the Hardware/Networking companies.

- **KPO/Analyst**

Knowledge Processing Outsourcing (popularly known as KPO) calls for the application of specialized domain pertinent knowledge. KPO business entities provide typical domain-based processes, advanced analytical skills and business expertise, rather than just process expertise. These companies look for an impressive command in English and sound knowledge in both Quantitative and Logical Reasoning. Evalueserve, Ugam Solutions, 24/7 Customer, ICICI OneSource, etc. are some of the leading KPOs in India.

- **Automobile/Manufacturing Industry**

Automotive engineers work in all aspects of a vehicle's design and performance. The work could be broadly in one of the three categories- product engineering, development engineering and manufacturing engineering. This job requires the person to have strong analytical skills and logical ability as it involves lot of data analysis before a new design is developed. They should be good with English language and since this is a specialized job profile, technical knowledge in this field is mandatory which is assessed by the Mechanical Engineering module.

- **Telecom**

The jobs in the telecom industry involve inspection and repair of any equipment or service related to the field of voice, video and internet communications. The work of this field is divided into maintenance & repair, customer section, support section, installation section and telecom engineers. Candidates interested in this field must be able to solve problems and analyse complex situation, hence they are expected to score high in Logical Ability and Quantitative Ability. It, being a technical job, knowledge of the functioning of various equipment and other technical details are tested by the Telecommunications module.

- **Software Quality**

Software testers are responsible for testing of software programs to ensure quality. They are required to review software requirements, prepare test cases, execute them and report defects.

- **Civil Design & Construction**

The job profile of a civil engineer includes planning and supervising the construction of society's infrastructure like roads, dams, buildings and highways. Civil engineering is a broad field and one would generally specialize in any one specific area like structural, construction, environmental or transportation engineering. Civil engineers need to have a strong aptitude for mathematics and should be able to think logically and creatively to be successful. They must be able to communicate well, both verbally and in writing. Domain knowledge is very important and hence the candidates need to have a bachelor's degree in Civil Engineering.

- **Electrical/Energy & Power**

The jobs in this sector involves design, deployment and maintenance of a broad range of electrical systems and equipment with a focus on economy, safety, quality and reliability. The skills required for the role of electrical engineer include analytical skills, effective communication and organizational skills and mastery in engineering skills.

- **Production/Manufacturing**

The jobs in the Life Science industry deal predominantly with research and development of molecules like drugs, vaccines, antibiotics, etc which help in enhancing the health of human beings and reduce the threat from diseases. Apart from research, the other roles offered in this industry include Production, Sales and Quality. For all roles, it is important that the candidate is well acquainted with the basics of Chemistry and Biochemistry. Additionally, a scientist/research specialist is expected to have sound knowledge of Molecular Biology and Biotech Lab Techniques. An employee in the Quality division needs to have good attention to detail.

II. Employability Prospects

The following table suggests the methods to be implemented in order to improve employability of your students with reference to particular job profiles. We have investigated what precise skills are deficient in students which make them unemployable. These skills need to be improved through efforts of the student and campus. Campus administration is requested to go through these suggestions and implement them to make students more employable.

Campus Job Match Table

Type of Company	Percentage of Students Eligible	Percentage of Students Need some training	Percentage of Students Need lot of training
IT Services	22.1%	9.2%	68.6%
IT Products	3%	2%	94.9%
Electronics & Semiconductor	4.1%	39.3%	56.6%
ITeS and BPO	66.6%	4.8%	28.6%
Hardware and Networking	56.6%	13.4%	30%
KPO/Analyst	12.5%	36.2%	51.3%
Automobile/ Manufacturing Industry	10.7%	35.7%	53.6%
Telecom	4.7%	31.3%	64.1%
Software Quality	6.1%	0%	93.9%
Civil Design & Construction	5.6%	20.6%	73.8%
Electrical/Energy & Power	9.8%	37.3%	52.9%
Production/ Manufacturing	0%	40%	60%

III. Bird's-eye-view of Employability

The following table suggests the methods to be implemented in order to improve employability of your students for each type of company. These recommendations are provided on the basis of weak modules for each company, which the faculty should work on to help their students. Campus is requested to go through these suggestions and implement them to elevate the chances of getting placed in that particular company.

Campus Employability Enhancement Table

Type of Company	Campus Employability Prospect	Areas in Need of Training for Improving Employability Chances
IT Services	Low	These companies are basically looking for good English and Logical skills with average Quantitative ability. To increase the employability prospects for this industry, extra efforts are required by the campus authority on Quantitative Ability, Logical Ability and English Comprehension.
IT Products	Low	These companies are basically looking for good English, Programming and Logical skills with average Quantitative ability. If employability prospects is to be increased for this industry, campus faculty will need to focus on Logical Ability, Automata Fix, Quantitative Ability and English Comprehension.
Electronics & Semiconductor	Low	These companies look for candidates having good knowledge of Electronics and Semiconductors with good Logical and Quantitative abilities. If employability prospects is to be increased for this industry, campus faculty will need to focus on Quantitative Ability, Logical Ability, English Comprehension and Electronics and Semiconductor Engineering.
ITeS and BPO	Medium	These companies look for candidates proficient in English with average Logical and Quantitative abilities. To increase the employability prospects for this industry, extra efforts are required by the campus authority on English Comprehension.
Hardware and Networking	Medium	These companies are basically looking for candidates with good English and average Logical abilities. For better employability prospects in this industry, your students need to focus on Logical Ability and English Comprehension.

Type of Company	Campus Employability Prospect	Areas in Need of Training for Improving Employability Chances
KPO/Analyst	Low	These companies look for candidates having proficiency in English with good Quantitative and Reasoning abilities. For better employability prospects in this industry, your students need to focus on Quantitative Ability, Logical Ability and English Comprehension.
Automobile/ Manufacturing Industry	Low	These companies are basically looking for candidates with good English, Logical and Quantitative ability along with proficiency in Mechanical skills. If employability prospects is to be increased for this industry, campus faculty will need to focus on Quantitative Ability, Logical Ability, English Comprehension and Automotive Engineering.
Telecom	Low	These companies are basically looking for good English, Logical, Quantitative skills along with proficiency in Telecommunication. If employability prospects is to be increased for this industry, campus faculty will need to focus on Quantitative Ability, Logical Ability, English Comprehension and Telecommunications Engineering.
Software Quality	Low	This profile requires candidates with good aptitude skills along with knowledge of Computer Programming. For better employability prospects in this industry, your students need to focus on Automata Fix.
Civil Design & Construction	Low	These companies look for candidates with good knowledge of English, Logical and Quantitative abilities with proficiency in Civil Engineering. For better employability prospects in this industry, your students need to focus on English Comprehension, Quantitative Ability, Logical Ability and Civil Engineering.
Electrical/Energy & Power	Low	These companies look for candidates with good knowledge of English, Logical and Quantitative abilities with proficiency in Electrical Engineering. If employability prospects is to be increased for this industry, campus faculty will need to focus on Quantitative Ability, Logical Ability, Electrical Engineering and English Comprehension.
Production/ Manufacturing	Low	This profile requires candidates with basic aptitude skills along with knowledge of Chemistry, Biochemistry, Molecular Biology and Lab Techniques. If employability prospects is to be increased for this industry, campus

Type of Company	Campus Employability Prospect	Areas in Need of Training for Improving Employability Chances
		faculty will need to focus on English Comprehension, Quantitative Ability and Logical Ability.

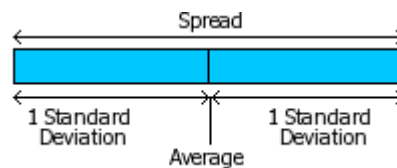
Section 3 - Intra Campus Comparison

In this section, we will compare assessment scores to create a comprehensive comparative analysis between different branches of a degree of your college. This section shall explain the competitiveness of students of each degree, branch and batch with others in the respective group.

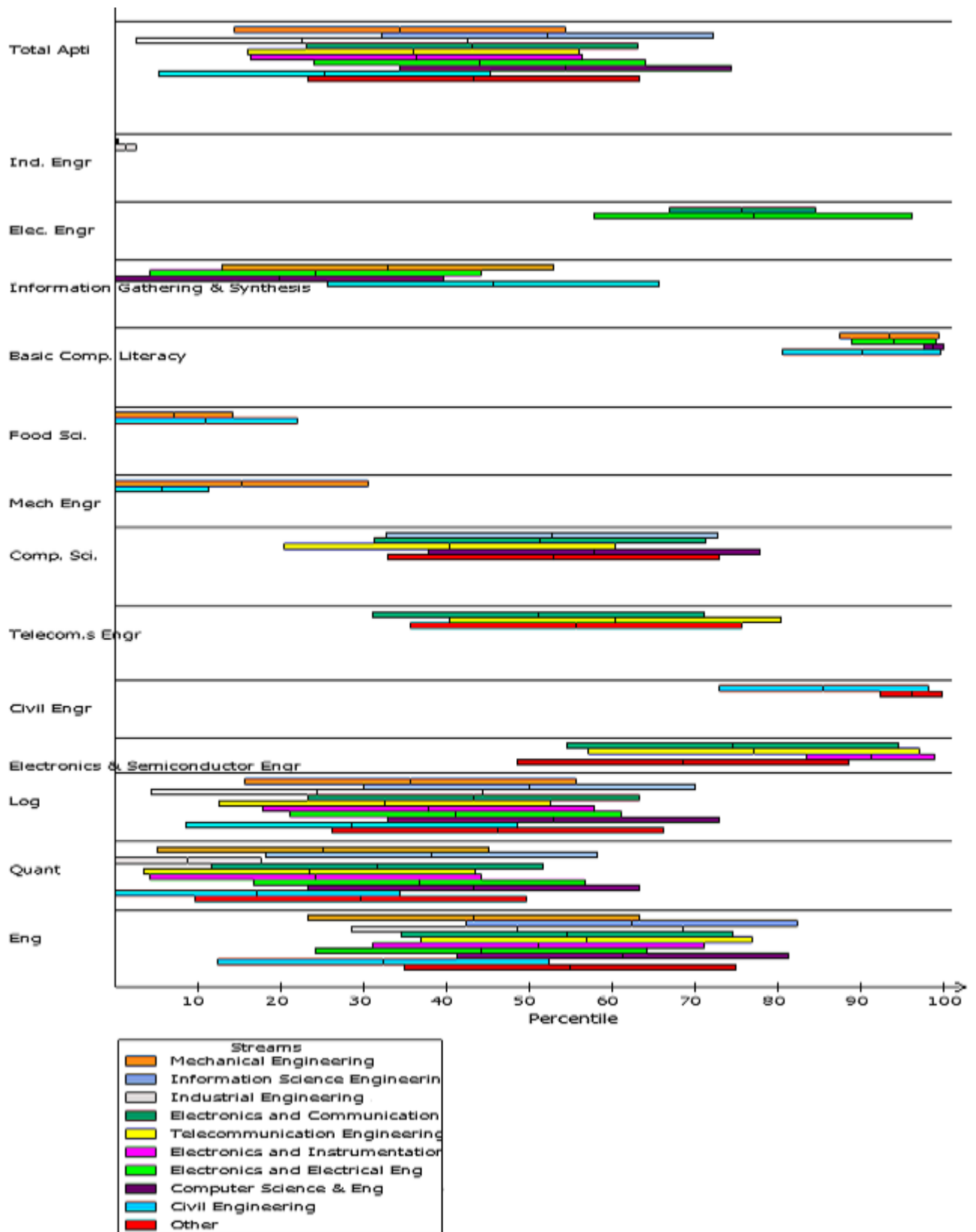
I. Stream Comparison

In this section, we compare the AMCAT scores of students categorized by their branch of study. Students from the following branches participated in AMCAT at your college.

1. Computer Science & Engineering
2. Information Science Engineering
3. Electronics and Communication Engineering
4. Electronics and Instrumentation Engineering
5. Telecommunication Engineering
6. Electronics and Electrical Engineering
7. Mechanical Engineering
8. Civil Engineering
9. Industrial Engineering and Management
10. Other



The chart below shows the comparison of module-wise average scores for each stream. To interpret the chart, refer to the above illustration. Each horizontal bar represents the average score along with the standard deviation of a particular branch in that module. The vertical line at the center of each bar represents the average score. The length of bar represents the range of scores obtained by students of that stream.



Note: color bands are in order.

For each module, the following table lists the top scoring streams. Only the modules which are common for all the streams have been considered in the table.

Top Scoring Streams For Each Module

Rank	English Comprehension	Quantitative Ability	Logical Ability	Electronics and Semiconductor Engineering	Civil Engineering	Telecommunications Engineering	Computer Science	Mechanical Engineering	Food Science	Basic Computer Literacy	Information Gathering and Synthesis	Electrical Engineering	Industrial Engineering
1	Information Science Engineering	Computer Science & Engineering	Computer Science & Engineering	Electronics and Instrumentation Engineering	Other	Telecommunication Engineering	Computer Science & Engineering	Mechanical Engineering	Civil Engineering	Computer Science & Engineering	Civil Engineering	Electronics and Electrical Engineering	Industrial Engineering and Management
2	Computer Science & Engineering	Information Science Engineering	Information Science Engineering	Telecommunication Engineering	Civil Engineering	Other	Other	Civil Engineering	Mechanical Engineering	Electronics and Electrical Engineering	Mechanical Engineering	Electronics and Communication Engineering	Mechanical Engineering

Note: streams with less than 5 students have not been considered for the analysis.

On the basis of AMCAT scores obtained by different streams in your campus, we make following inferences -

1. English Comprehension

Information Science Engineering students have shown that they are the best when it comes to English Comprehension. **Computer Science & Engineering students follow them** with a difference of 1.07 percentile points while **Civil Engineering students are the last in the order** with a difference of 29.95 percentile points. When compared to the National Average, Other, Computer Science & Engineering, Electronics and Instrumentation Engineering, Telecommunication Engineering, Electronics and Communication Engineering and Information Science Engineering students have done better in this section. The Civil Engineering, Electronics and Electrical Engineering, Industrial Engineering and Management and Mechanical Engineering students need to pay more attention to these areas as they have underperformed.

2. Quantitative Ability

Computer Science & Engineering students have shown that they are the best when it comes to Quantitative Ability. **Information Science Engineering students follow them** with a difference of 5.11 percentile points while **Industrial Engineering and Management students are the last in the order** with a difference of 34.5 percentile points. When compared to the National Average, all the streams have underperformed in this section.

3. Logical Ability

Candidates having **Computer Science & Engineering as specialization have scored highest** in Logical Ability. **Information Science Engineering students scored slightly lower than Computer Science & Engineering students** with a difference of 2.97 percentile points whereas Industrial Engineering and Management students have scored significantly lower than Computer Science & Engineering with a difference of 28.56 percentile points. Also, note that Other, Civil Engineering, Electronics and Electrical Engineering, Electronics and Instrumentation Engineering, Telecommunication Engineering, Electronics and Communication Engineering, Industrial Engineering and Management, Information Science Engineering and Mechanical Engineering students have scored poorly in comparison to the National Average whereas Computer Science & Engineering students have performed well with respect to the National Average.

4. Electronics and Semiconductor Engineering
Candidates having **Electronics and Instrumentation Engineering as specialization have scored highest** in Electronics and Semiconductor Engineering. **Telecommunication Engineering students scored slightly lower than Electronics and Instrumentation Engineering students** with a difference of 14.2 percentile points whereas Other students have scored significantly lower than Electronics and Instrumentation Engineering with a difference of 22.64 percentile points. If nationwide comparison is made, then, on an average, all the streams have done fairly well with respect to the National Average.
5. Mechanical Engineering
When it comes to Mechanical Engineering, **Mechanical Engineering students have grabbed the top position** leaving Civil Engineering behind by 9.54 percentile points. Also note that, on an average, both the streams have scored worse than the National Average.
6. Electrical Engineering
When it comes to Electrical Engineering, **Electronics and Electrical Engineering students have grabbed the top position** leaving Electronics and Communication Engineering behind by 1.25 percentile points. On an average, both the streams have performed well when compared to the National Average.
7. Civil Engineering
When it comes to Civil Engineering, **Other students have grabbed the top position** leaving Civil Engineering behind by 10.62 percentile points. We have observed that, on an average, both the streams are better performers in comparison to the National Average.
8. Telecommunications Engineering
Telecommunication Engineering students have shown that they are the best when it comes to Telecommunications Engineering. **Other students follow them** with a difference of 4.72 percentile points while **Electronics and Communication Engineering students are the last in the order** with a difference of 9.28 percentile points. Also, note that all the streams have performed well with respect to the National Average.
9. Industrial Engineering
Industrial Engineering and Management students have performed well in Industrial Engineering section in comparison to the Mechanical Engineering students who lag by 1.13 percentile points. We have observed that, on an average, both the streams have scored low in comparison to the National Average.
10. Food Science
Civil Engineering students have shown that they are the best when it comes to the Food Science. Mechanical Engineering students lag behind with a difference of 3.98 percentile points. If nationwide comparison is done, then, on an average, both the streams have performed lower than the National Average.
11. Computer Science
Computer Science & Engineering students have shown that they are the best when it comes to Computer Science. **Other students follow them** with a difference of 4.93 percentile points while **Telecommunication Engineering students are the last in the order**

with a difference of 17.42 percentile points. Also, note that Telecommunication Engineering students have scored poorly in comparison to the National Average whereas Other, Computer Science & Engineering, Electronics and Communication Engineering and Information Science Engineering students have performed well with respect to the National Average.

12. Basic Computer Literacy

Students from Computer Science & Engineering have performed well in Basic Computer Literacy section in comparison to the Electronics and Electrical Engineering students who, on an average, lag by 8.72 percentile points. **Civil Engineering students' performance is comparatively lower** with respect to the other streams, scoring 90 percentile in this section. Also, note that all the streams, on an average, have scored higher in comparison to the National Average.

13. Information Gathering and Synthesis

Civil Engineering students have shown that they are the best when it comes to Information Gathering and Synthesis. **Mechanical Engineering students follow them** with a difference of 12.68 percentile points while **Computer Science & Engineering students are the last in the order** with a difference of 25.72 percentile points. If nationwide comparison is made, then, on an average, all the streams have performed worse than the National Average.

In your campus, **Computer Science & Engineering stream performed outstandingly well in maximum number of modules.** Also, Civil Engineering stream performed poorly in maximum number of modules in comparison to other streams, and therefore need special attention.

Aspiring Minds' Concluding Words

To summarize the overall analysis of your campus done by Aspiring Minds, key-points from all sections are highlighted below:

- The performance of the B.Tech/B.E students in your campus is **good in Electronics and Semiconductor Engineering, Electrical Engineering and Civil Engineering**, which is commendable. They have performed **satisfactory in English Comprehension, Logical Ability, Computer Programming and Automotive Engineering**, whereas extra efforts can make a tremendous difference in performance. However, the students' performance is **not satisfactory in Quantitative Ability, Mechanical Engineering, Industrial Engineering and Production Engineering**, therefore additional training sessions and corrective measures are required by the campus authorities.
- It is clearly evident that **66.6% and 56.6%** of your students are eligible to work in **ITeS and BPO and Hardware and Networking** which is good, however **22.3%, 3%, 4.1%, 12.6%, 10.7%, 4.7%, 7.1%, 5.6%, 9.8% and 0%** of your students are eligible to work in **IT Services, IT Products, Electronics & Semiconductor , KPO/Analyst, Automobile/Manufacturing Industry, Telecom, Software Quality, Civil Design & Construction, Electrical/Energy & Power and Production/Manufacturing** respectively which is an area of concern.
- In your campus, **Computer Science & Engineering stream performed outstandingly well in maximum number of modules**. Also, Civil Engineering stream performed poorly in maximum number of modules in comparison to other streams, and therefore need special attention.

The strongest recommendation Aspiring Minds will like to give is initiation of classes to improve the weak areas of candidates. Apart from classes, regular quizzes and special training sessions should also be initiated, where students answer questions under time constraints. The classes should be student-friendly so that the students are open to questions and are free to ask their doubts. Peer teaching can be another way to increase the learning of students in the class

Along with increasing the employability of the institute, this will help your students compete with other candidates in a more effective and efficient way. With regard to areas where your students scored well, a sustained effort is needed. Regular assignments of problems should be given so that the students can accelerate their performance.

We strongly request the campus authorities to direct all students to follow the performance feedback given by Aspiring Minds based on their AMCAT scores. The campus authorities can go a long way in reminding students about their strengths and weaknesses, thus encouraging them to uphold their strengths and improve on their weaknesses. Consider special classes, better teaching processes and focused courses so that students get a good platform to improve and perform. We also strongly suggest conducting AMCAT again at campus after 4 months of dedicated hard work by students and campus authorities. This shall give students a benchmark to improve themselves, and help us understand if the initiated training program was useful. Of course, it would help students as well, with better scores leading to better job opportunities.

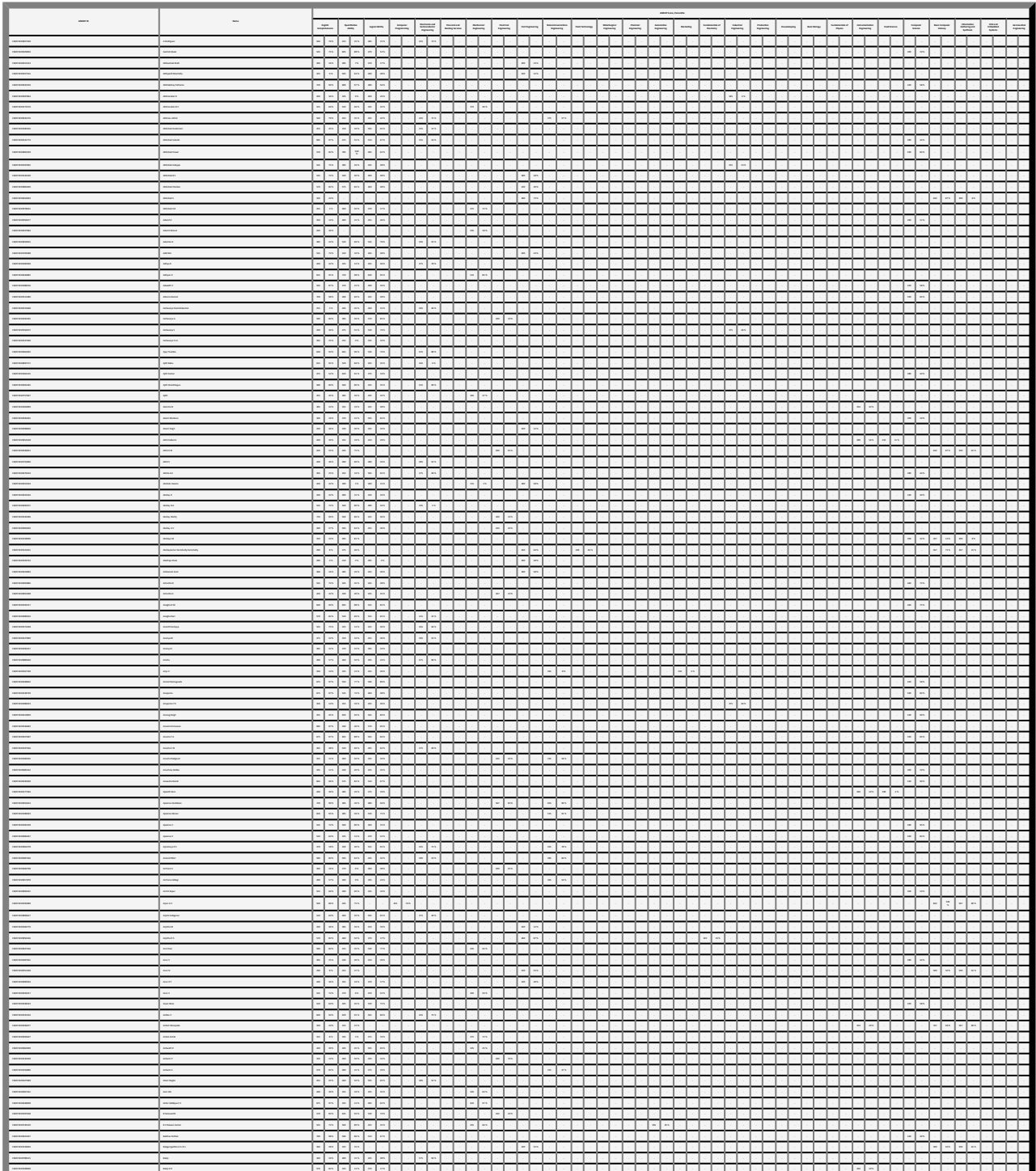
We thank Dr Ambedkar Institute of engineering for giving us an opportunity to conduct AMCAT in their campus. For any clarification or further analysis, we can be contacted at campus@aspiringminds.in or (91) 124 4148777.

Appendix

I. Candidates Score Table

The Candidates score table below shows the scores and percentile of all the students of your campus tested on AMCAT. All scores lie between 100 and 900.

..... 0



Q.No.	Question	A	B	C	D	E	Answer														
							1	2	3	4	5	6	7	8	9	10					
1	...																				
2	...																				
3	...																				
4	...																				
5	...																				
6	...																				
7	...																				
8	...																				
9	...																				
10	...																				
11	...																				
12	...																				
13	...																				
14	...																				
15	...																				
16	...																				
17	...																				
18	...																				
19	...																				
20	...																				
21	...																				
22	...																				
23	...																				
24	...																				
25	...																				
26	...																				
27	...																				
28	...																				
29	...																				
30	...																				
31	...																				
32	...																				
33	...																				
34	...																				
35	...																				
36	...																				
37	...																				
38	...																				
39	...																				
40	...																				
41	...																				
42	...																				
43	...																				
44	...																				
45	...																				
46	...																				
47	...																				
48	...																				
49	...																				
50	...																				
51	...																				
52	...																				
53	...																				
54	...																				
55	...																				
56	...																				
57	...																				
58	...																				
59	...																				
60	...																				
61	...																				
62	...																				
63	...																				
64	...																				
65	...																				
66	...																				
67	...																				
68	...																				
69	...																				
70	...																				
71	...																				
72	...																				
73	...																				
74	...																				
75	...																				
76	...																				
77	...																				
78	...																				
79	...																				
80	...																				
81	...																				
82	...																				
83	...																				
84	...																				
85	...																				
86	...																				
87	...																				
88	...																				
89	...																				
90	...																				
91	...																				
92	...																				
93	...																				
94	...																				
95	...																				
96	...																				
97	...																				
98	...																				
99	...																				
100	...																				

Q.No.	Question	Options																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1. The area of a square is 144 cm ² . Find its perimeter.	12 cm	24 cm	36 cm	48 cm	60 cm	72 cm	84 cm	96 cm	108 cm	120 cm	132 cm	144 cm	156 cm	168 cm	180 cm	192 cm	204 cm	216 cm	228 cm	
2	2. A number is divided by 4 and the quotient is 15. Find the number.	3	15	60	75	120	150	180	210	240	270	300	330	360	390	420	450	480	510	540	
3	3. The sum of two numbers is 25. One number is 7 more than the other. Find the numbers.	8 and 17	9 and 16	10 and 15	11 and 14	12 and 13	13 and 12	14 and 11	15 and 10	16 and 9	17 and 8	18 and 7	19 and 6	20 and 5	21 and 4	22 and 3	23 and 2	24 and 1	25 and 0	26 and -1	
4	4. A number is multiplied by 5 and the product is 100. Find the number.	2	5	10	20	50	100	200	500	1000	2000	5000	10000	20000	50000	100000	200000	500000	1000000	2000000	
5	5. The perimeter of a square is 48 cm. Find its area.	144 cm ²	36 cm ²	96 cm ²	192 cm ²	288 cm ²	384 cm ²	480 cm ²	576 cm ²	672 cm ²	768 cm ²	864 cm ²	960 cm ²	1056 cm ²	1152 cm ²	1248 cm ²	1344 cm ²	1440 cm ²	1536 cm ²	1632 cm ²	
6	6. A number is divided by 6 and the quotient is 20. Find the number.	3	20	30	40	60	120	180	240	300	360	420	480	540	600	660	720	780	840	900	
7	7. The sum of three numbers is 45. One number is 10 more than the second, and the third is 5 less than the second. Find the numbers.	10, 15, 20	12, 18, 15	15, 20, 10	18, 25, 12	20, 30, 15	25, 35, 20	30, 40, 25	35, 45, 30	40, 50, 35	45, 55, 40	50, 60, 45	55, 65, 50	60, 70, 55	65, 75, 60	70, 80, 65	75, 85, 70	80, 90, 75	85, 95, 80	90, 100, 85	
8	8. A number is multiplied by 8 and the product is 200. Find the number.	25	40	50	60	80	100	120	150	200	250	300	400	500	600	800	1000	1200	1500	2000	
9	9. The perimeter of a rectangle is 40 cm. The length is 12 cm. Find the breadth.	12 cm	14 cm	16 cm	18 cm	20 cm	22 cm	24 cm	26 cm	28 cm	30 cm	32 cm	34 cm	36 cm	38 cm	40 cm	42 cm	44 cm	46 cm	48 cm	
10	10. A number is divided by 9 and the quotient is 12. Find the number.	3	12	36	48	72	108	144	180	216	252	288	324	360	396	432	468	504	540	576	
11	11. The sum of two numbers is 30. One number is 4 more than the other. Find the numbers.	13 and 17	14 and 16	15 and 15	16 and 14	17 and 13	18 and 12	19 and 11	20 and 10	21 and 9	22 and 8	23 and 7	24 and 6	25 and 5	26 and 4	27 and 3	28 and 2	29 and 1	30 and 0	31 and -1	
12	12. A number is multiplied by 7 and the product is 140. Find the number.	20	35	40	50	70	100	140	200	280	350	420	500	560	630	700	770	840	910	980	
13	13. The perimeter of a square is 60 cm. Find its area.	225 cm ²	150 cm ²	90 cm ²	45 cm ²	22.5 cm ²	11.25 cm ²	5.625 cm ²	2.8125 cm ²	1.40625 cm ²	0.703125 cm ²	0.3515625 cm ²	0.17578125 cm ²	0.087890625 cm ²	0.0439453125 cm ²	0.02197265625 cm ²	0.010986328125 cm ²	0.0054931640625 cm ²	0.00274658203125 cm ²	0.001373291015625 cm ²	
14	14. A number is divided by 12 and the quotient is 8. Find the number.	3	8	24	32	48	64	96	128	192	256	384	512	768	1024	1536	2048	3072	4096	6144	
15	15. The sum of two numbers is 20. One number is 3 more than the other. Find the numbers.	7 and 13	8 and 12	9 and 11	10 and 10	11 and 9	12 and 8	13 and 7	14 and 6	15 and 5	16 and 4	17 and 3	18 and 2	19 and 1	20 and 0	21 and -1	22 and -2	23 and -3	24 and -4	25 and -5	
16	16. A number is multiplied by 10 and the product is 300. Find the number.	30	60	70	80	100	120	150	200	300	400	600	800	1000	1200	1500	2000	3000	4000	6000	
17	17. The perimeter of a rectangle is 50 cm. The length is 15 cm. Find the breadth.	15 cm	17 cm	18 cm	19 cm	20 cm	21 cm	22 cm	23 cm	24 cm	25 cm	26 cm	27 cm	28 cm	29 cm	30 cm	31 cm	32 cm	33 cm	34 cm	
18	18. A number is divided by 15 and the quotient is 10. Find the number.	3	10	30	40	60	120	180	240	300	360	420	480	540	600	660	720	780	840	900	
19	19. The sum of three numbers is 60. One number is 15 more than the second, and the third is 10 less than the second. Find the numbers.	15, 20, 25	18, 24, 18	20, 30, 10	25, 35, 20	30, 45, 25	35, 50, 30	40, 60, 35	45, 75, 40	50, 90, 45	55, 105, 50	60, 120, 55	65, 135, 60	70, 150, 65	75, 165, 70	80, 180, 75	85, 195, 80	90, 210, 85	95, 225, 90	100, 240, 95	
20	20. A number is multiplied by 12 and the product is 240. Find the number.	20	40	50	60	80	100	120	150	200	240	300	400	480	600	720	840	960	1200	1600	

Q.No.	Question	Section A										Section B										
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
1	...																					
2	...																					
3	...																					
4	...																					
5	...																					
6	...																					
7	...																					
8	...																					
9	...																					
10	...																					
11	...																					
12	...																					
13	...																					
14	...																					
15	...																					
16	...																					
17	...																					
18	...																					
19	...																					
20	...																					
21	...																					
22	...																					
23	...																					
24	...																					
25	...																					
26	...																					
27	...																					
28	...																					
29	...																					
30	...																					
31	...																					
32	...																					
33	...																					
34	...																					
35	...																					
36	...																					
37	...																					
38	...																					
39	...																					
40	...																					
41	...																					
42	...																					
43	...																					
44	...																					
45	...																					
46	...																					
47	...																					
48	...																					
49	...																					
50	...																					
51	...																					
52	...																					
53	...																					
54	...																					
55	...																					
56	...																					
57	...																					
58	...																					
59	...																					
60	...																					
61	...																					
62	...																					
63	...																					
64	...																					
65	...																					
66	...																					
67	...																					
68	...																					
69	...																					
70	...																					
71	...																					
72	...																					
73	...																					
74	...																					
75	...																					
76	...																					
77	...																					
78	...																					
79	...																					
80	...																					
81	...																					
82	...																					
83	...																					
84	...																					
85	...																					
86	...																					
87	...																					
88	...																					
89	...																					
90	...																					
91	...																					
92	...																					
93	...																					
94	...																					
95	...																					
96	...																					
97	...																					
98	...																					
99	...																					
100	...																					

II. Statistical Significance (Confidence)

All score distributions generally follow a pattern called the Gaussian curve. The Gaussian curve is by far the most common assumption with regard to score distribution. For the purpose of comparison, we express AMCAT scores as Gaussian distribution. The most characteristic feature of this distribution is that the scores for maximum number of students fall in a very narrow range around the average value.

The percentage of scores lying in the range falls exponentially as we move away from the average value. The confidence percentage, which ranges from 0% to 100%, is indicative of the possibility that the difference in scores is by chance. A high confidence percentage indicates that it is very likely that the difference observed is real and not by chance. In this analysis, we classify differences, with confidence 90% or higher, as significantly different (that is, not by chance).

III. National Average (Norm)

To construct the norms (National average & standard deviation), balanced sampling was used to select more than 25000 students tested by Aspiring Minds nationwide. Balanced sampling technique ensures that the selected candidates are representative of entry-level job-aspirants over 22 states in India. It is ensured that the sample contains different degrees, specializations, genders, regions, etc. in the same composition as the National distribution.

To summarize score distribution of the norms and Dr Ambedkar Institute of engineering students, two values (statistics) are used: average of the scores and standard deviation of the scores. While the former value indicates what, on average, candidates score in the test, the latter value tells how much do scores deviate from the average. High value of standard deviation means that the scores are dissimilar and spread across the scale. In contrast, a low value of standard deviation means that candidates scores are similar to each other and lie near the average.

IV. Variance (Standard Deviation)

The variance (or standard deviation) is a measure of how spread out a distribution is. In other words, it is the measure of variability. A low standard deviation indicates that the data points tend to be very close to the average value, while high standard deviation indicates that the data is spread out over a large range of values.

V. About Aspiring Minds

Aspiring Minds was founded in 2007 by alumni of IIT and MIT (USA) with a vision to introduce scientific assessment methodology to bring together job-seekers and campuses across India on a common standardized platform that is recognized by multiple companies on a national level. The aim of Aspiring Minds is to highlight the pool of talented students and progressive campuses to corporates nationally, provide an insight on how they can improve their employability and help them acquire jobs on the basis of their potential. In a short span of time, Aspiring Minds has earned credibility and is working with multiple corporations such as Microsoft Research, HCL Technologies, MPhasiS EDS, Ericsson, Tata Motors, Aricent, Genpact, iGATE, L&T Finance, Sapient, Godrej Agrovet and Tavant Technologies.

Board of Advisors

Prof. Tarun Khanna, HBS, USA

Dr. Una-May O'Reilly, MIT, USA

Dr. Vijay Bhushan, PhD., UIUC, USA