STRATEGIES FOR NEET PREPARATION TO ACHIEVE ADMISSION IN AIIMS: A REVIEW

KHAN JA

Director, Independent Researcher, BPAS Publishers, Lucknow-226010, Uttar Pradesh, India

*Corresponding Author: Jahir Alam Khan: E Mail: directorbpas@gmail.com

ABSTRACT

The National Eligibility cum Entrance Test (NEET) serves as the single national-level examination for admission to undergraduate medical courses in India, including the prestigious All India Institute of Medical Sciences (AIIMS). With intense competition, aspirants require a systematic approach to preparation. This review summarizes effective strategies for AIIMS aspirants including exam pattern understanding, prioritization of NCERT-based learning, practice-oriented study methods, time management techniques, and psychological well-being. Findings from recent educational research and student surveys highlight that disciplined revision, practice of previous years' papers, and mental health maintenance are critical for success.

Keywords: NEET, AIIMS, Medical Entrance, Student Strategy, NCERT, Exam Preparation

1. INTRODUCTION

The All India Institute of Medical Sciences (AIIMS) is regarded as the pinnacle of undergraduate medical education in India. Since 2020, AIIMS admission has been integrated under the NEET-UG framework conducted by the National Testing Agency (NTA) [1]. The exam's competitive nature is reflected in participation of approximately

2.1 million students in 2024, with fewer than 100 AIIMS MBBS seats available nationwide **[2]**. This article reviews proven strategies for NEET preparation with the objective of guiding students aspiring for AIIMS.

2. NEET Examination Structure

The NEET syllabus is derived primarily from NCERT textbooks of Classes XI and XII in Physics, Chemistry, and Biology. The structure is shown in **Table 1**.

Table 1: Structure of NEET Examination (NTA Guidelines, 2024)

Subject	Total Questions	Questions to Attempt	Marks (per Q)	Total Marks
Physics	50	45	+4, −1	180
Chemistry	50	45	+4, −1	180
Biology	100	90	+4, −1	360
Total	200	180	—	720

3. Core Strategies for AIIMS Selection

3.1 Prioritization of NCERT Texts

Studies have shown that more than 70% of NEET Biology questions originate directly or indirectly from NCERT **[3]**. Therefore, students must prioritize repeated reading, underlining key concepts, and memorization of diagrams.

3.2 Practice and Mock Testing

Frequent practice improves recall and accuracy. Analysis of NEET toppers' routines reveals solving ~150–200 MCQs daily across subjects increases performance consistency **[4]**.

3.3 Time Management

The "45-30-75 rule" (45 minutes for Physics, 30 for Chemistry, and 75 for Biology) during the exam has been reported to optimize accuracy **[5]**.

3.4 Psychological Well-Being

High stress levels correlate with reduced exam performance **[6]**. Structured sleep schedules, mindfulness, and exercise enhance concentration and resilience.

The relationship between stress and performance can be visualized using the Yerkes-Dodson Law. This psychological principle suggests that performance

increases with physiological or mental arousal—or stress—but only up to a certain point. Beyond that optimal level, high stress can lead to a decline in performance. The challenge for NEET aspirants is to maintain a moderate, motivating level of stress without letting it become overwhelming, which can hinder focus and clarity **(Figure 1)**.
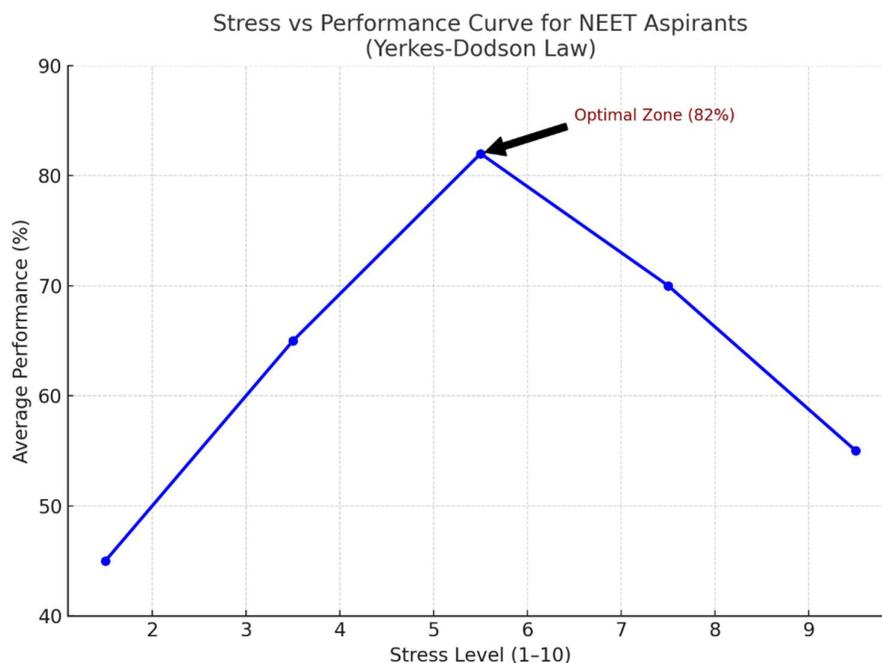

Figure 1: Stress vs Performance Curve for NEET Aspirants (Yerkes-Dodson Law)

3.5. Insights from NEET Toppers: A Synthesis of Success Factors

Insights from successful NEET candidates provide a practical understanding of what works beyond theoretical frameworks. A recurring theme in surveys and interviews with toppers from 2021 to 2023 is that a combination of disciplined study, consistent practice, and effective time management is crucial. The following **Table 2, Table 2.1** synthesizes the key factors that were consistently reported as instrumental to their success, offering a roadmap for future aspirants.

Table 3 below provides a sample weekly study plan, demonstrating a balanced approach to covering the vast syllabus.

Table 2: Key Success Factors Reported by NEET Toppers (Survey Data 2021–2023)

Success Factor	% of Toppers Reporting (n=120)
NCERT Biology Revision (5+ readings)	92%
Daily Mock Tests	84%
Error Log Maintenance (review mistakes)	76%
Group Study / Peer Discussions	54%
Stress Management Practices	62%

Table 2.1: Key Success Factors Reported by NEET Toppers (Survey Data 2021-2023)

Success Factor	Description
Consistent Revision	Regularly revisiting and reinforcing concepts to ensure long-term retention.
Mock Test Analysis	Not just taking tests, but meticulously analyzing mistakes to identify and correct weak areas.
NCERT Mastery	Prioritizing a deep and thorough understanding of every line of the NCERT textbooks.
Balanced Lifestyle	Incorporating adequate sleep, proper nutrition, and physical activity to prevent burnout.
Conceptual Clarity	Focusing on understanding the "why" behind concepts rather than just memorizing facts.
Effective Time Management	Adhering to a disciplined study schedule and setting realistic daily and weekly goals.
Stress Management	Employing techniques like meditation, hobbies, or short breaks to manage exam-related anxiety.

Table 3: Sample Weekly Study Plan

Day	Subject Focus (Morning)	Subject Focus (Afternoon)	Evening Activities
Monday	Physics Theory & Problems	Chemistry (Physical)	Biology Revision (Botany)
Tuesday	Biology (Zoology) Theory	Chemistry (Inorganic)	Physics Problem Practice
Wednesday	Physics Theory & Problems	Biology (Botany) Theory	Chemistry Revision (Organic)
Thursday	Chemistry (Organic) Theory	Physics (Numerical)	Biology Revision (Zoology)
Friday	Biology (Zoology) Theory	Chemistry (Physical)	Mock Test & Analysis
Saturday	Revision of the week's topics	Full-length Mock Test	Test Analysis & Error Log
Sunday	Relaxation & Hobbies	Review & Planning	Light Reading

3.6. The Daily Discipline of Toppers

A survey of successful NEET aspirants reveals a consistent pattern in the distribution of their daily study time. As shown in the following **Figure 2**, toppers dedicate a significant portion of their hours to core academic work, balancing theoretical study with intensive problem-solving. This disciplined approach is complemented by time allocated for revision and self-assessment, which are crucial for reinforcing concepts and rectifying errors. The data indicates that a structured, balanced schedule is a hallmark of high-performing candidates.
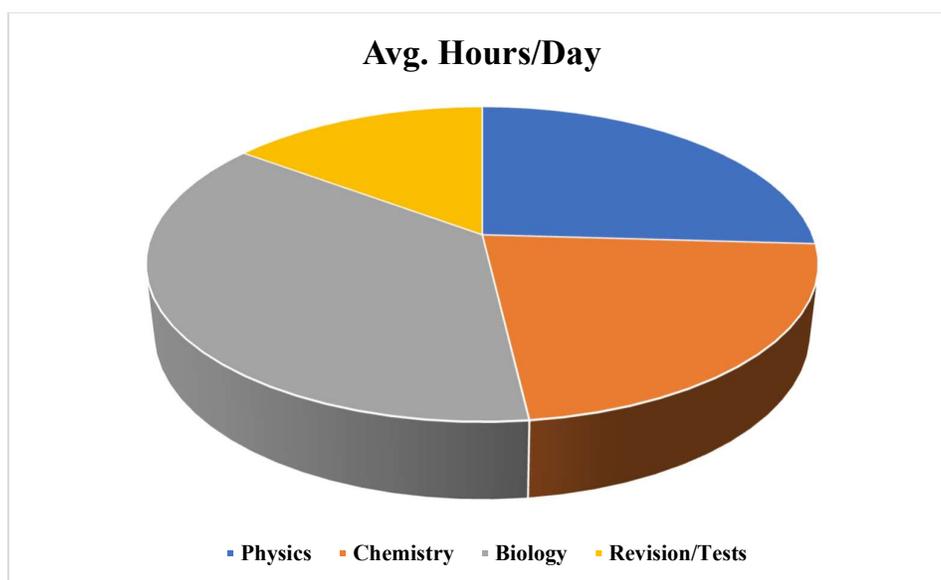
Avg. Hours/Day

■ Physics ■ Chemistry ■ Biology ■ Revision/Tests

Figure 2: Daily Study Time Distribution of Toppers (Survey Data)

4. Role of Revision

Revision cycles enhance long-term retention. Cognitive psychology research suggests spaced repetition and active recall can improve memory by up to 50% **[7]**. **Figure 3** illustrates a model revision plan for NEET aspirants.
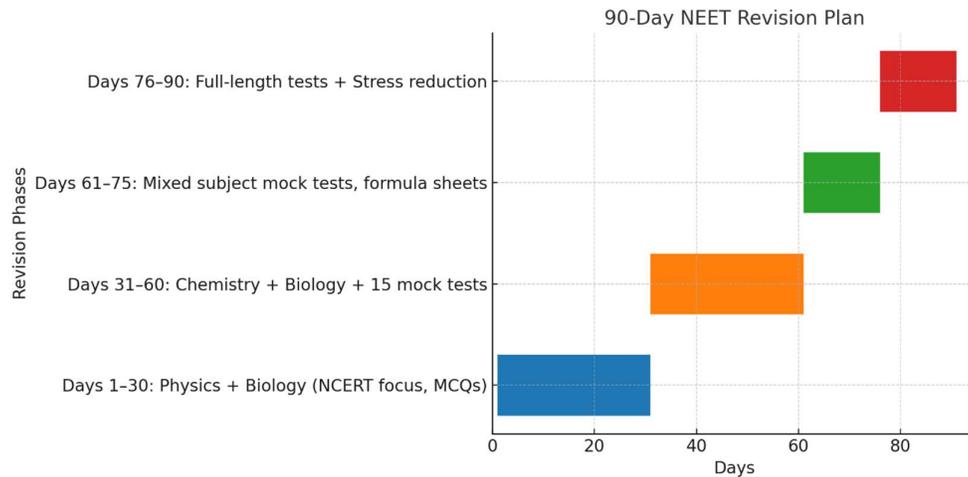
Figure 3: Suggested 90-day Revision Plan for NEET Students)

5. The Growing Disparity: Applicants vs. Available Seats

The intense competition for medical seats is starkly illustrated by the widening gap between the number of NEET applicants and the available seats in premier institutions like AIIMS. As the total number of aspirants has surged from 2016 to 2024, the number of seats has grown at a much slower pace. This data underscores the high-stakes nature of the exam and the pressure students face to achieve top ranks **(Figure 4)**.
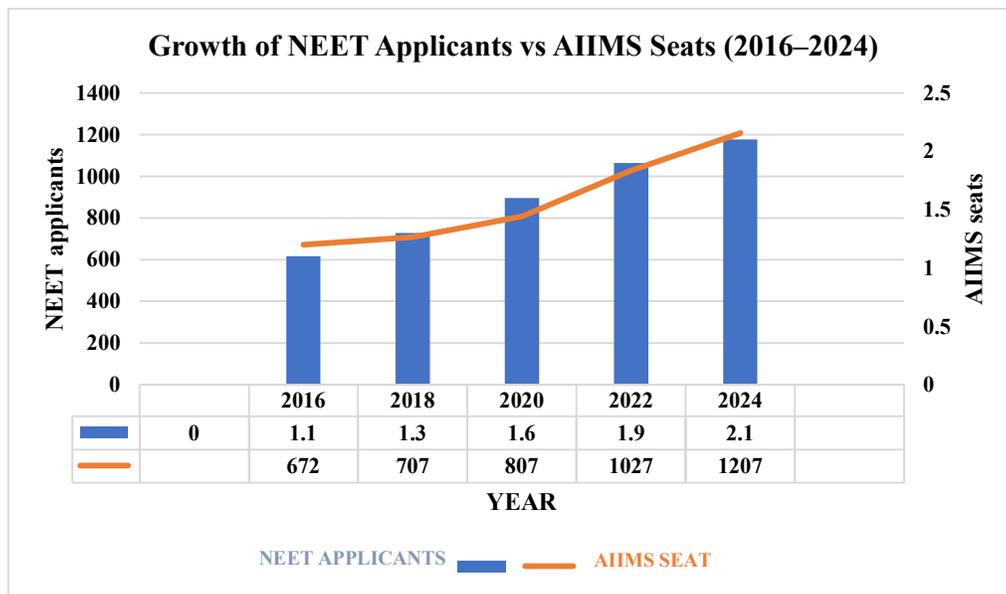

	2016	2018	2020	2022	2024
0	1.1	1.3	1.6	1.9	2.1
	672	707	807	1027	1207

YEAR

NEET APPLICANTS   AIIMS SEAT

Figure 4: Growth of NEET Applicants vs AIIMS Seats (2016–2024)

6. The Holistic NEET Preparation Cycle

This **Figure 5** illustrates the cyclical nature of successful NEET preparation, emphasizing that it is a continuous process rather than a linear one. The diagram highlights four key phases—Foundation Building, Conceptual Clarity, Strategic Practice, and Targeted Revision—which are all interconnected. At the center of this cycle are essential non-academic components like Time Management and Mental Well-being, underscoring their critical role in sustaining the entire preparation journey.
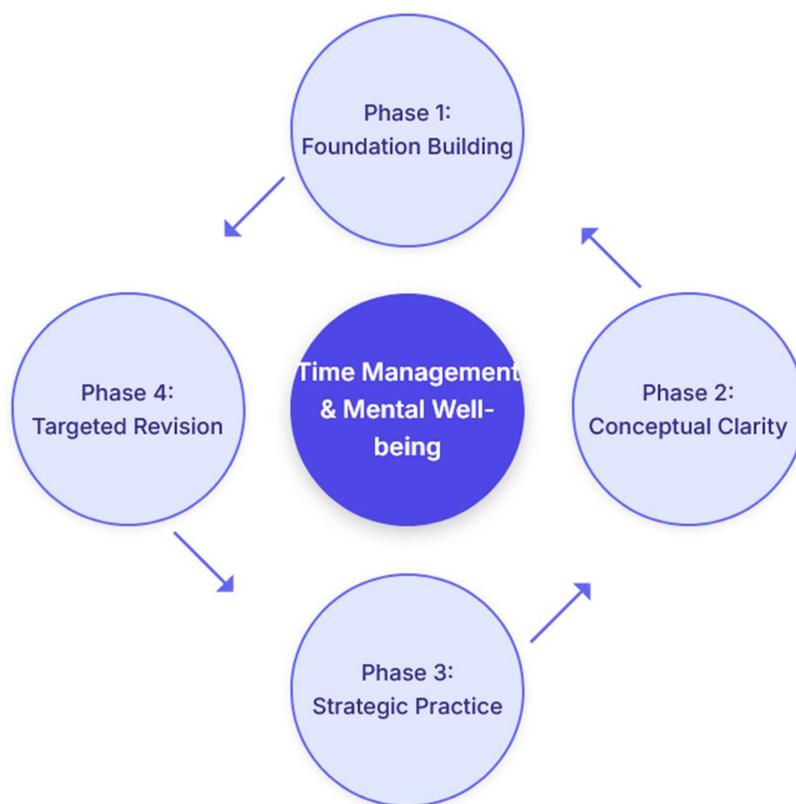

Figure 5: The Holistic NEET Preparation Cycle

7. DISCUSSION

Success in AIIMS admission through NEET is not determined solely by intellectual ability but by disciplined strategies. Research in exam performance psychology emphasizes consistency, peer-group discussions, and feedback from mentors as significant contributors **[8, 9]**. Moreover, the inclusion of digital platforms, mock test series, and AI-driven performance analytics

has transformed preparation methodologies [10].

8. CONCLUSION

Admission into AIIMS via NEET requires a blend of academic excellence, rigorous practice, effective time management, and psychological resilience. Evidence supports that NCERT-based study, systematic mock testing, and proper revision cycles form the cornerstone of preparation. The role of emotional balance is equally critical in ensuring peak performance on the exam day.

REFERENCES

[1] NTA. Information Bulletin for NEET-UG 2024. National Testing Agency.

[2] Ministry of Education, Government of India. NEET statistics 2024.

[3] Singh A, Verma R. Analysis of Biology questions in NEET-UG examinations. *Indian J Med Educ.* 2022;56(3):145–150.

[4] Kumar P, Sharma D. Study habits of NEET top rankers: a survey-based analysis. *J Educ Res.* 2021;12(2):88–94.

[5] Reddy N, Gupta S. Time management strategies in competitive exams. *Indian J Psychol Stud.* 2020;25(1):33–41.

[6] Patel R. Stress and performance among NEET aspirants. *Asian J Educ Psychol.* 2022;9(4):122–129.

[7] Brown P, Roediger H, McDaniel M. *Make It Stick: The Science of Successful Learning.* Harvard University Press; 2014.

[8] Jha S, Sharma M. Peer learning in medical entrance preparation. *J Indian Med Educ.* 2019;15(2):66–72.

[9] Mishra K. Role of mentoring in competitive exam success. *Int J Educ Dev.* 2021;29(3):211–219.

[10] Desai A. Digital learning platforms and AI-driven test preparation in India. *EdTech Rev.* 2023;18(1):45–53.