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**PIONEER ACADEMY™**

*For Competitive Examinations*

# AFCAT

## INFORMATION BOOKLET

### **PUNE ACADEMY :**

204/5, 304/5, 2<sup>nd</sup> & 3<sup>rd</sup> Flr., Pinnacle Prestige, Above Cosmos Bank, Opp. Maharashtra Electronics, Tilak Road, Sadashiv Peth, Pune - 411 030

**Mob.: 9145339324 / 9145339325**

### **THANE ACADEMY :**

201/202/203/204, 2<sup>nd</sup> Flr., Laizer Arcade, Raghoba Shankar Road, Chendani, Thane(W) - 400 601.

**Mob.: 8850837306 / 8928166732**

### **ANDHERI ACADEMY :**

3<sup>rd</sup> Flr., Syndicate Chember, Above Vaibhav Restaurant, Next To Better Home Hotel, Opp. Andheri (E) station, Andheri(E) - 400 601.

**Mob.: 9867041646 / 9324773854**

### **DADAR ACADEMY :**

306/7/8, 3<sup>rd</sup> Flr., Blue Pearl Society, Senapati Bapat Road, Plot No. 14, Near Janata Cloth Market, Near Dadar Railway Station, Dadar (W), Mumbai - 400 028

**Mob.: 7715013830 / 9324169627**

### **KALYAN ACADEMY :**

2<sup>nd</sup> Flr., Suyash Plaza, Opp. Railway Station, Near Deepak Hotel, Kalyan (W) - 421 301

**Mob.: 8591470467 / 8169140960**

### **PIMPRI-CHINCHWAD ACADEMY :**

45, 3<sup>rd</sup> Flr., Kunal Plaza, Mumbai Pune Road, Chinchwad Station Road, Pimpri-Chinchwad - 411 019

**Mob.: 9975459324 / 9503459325**

### **NERUL ACADEMY :**

16, 20 & 21, 1<sup>st</sup> Flr., Om Surya complex, Opp. Nerul Railway station, Beside Abhudaya Bank, Sector 15, Nerul (E), Navi Mumbai - 400 707

**Mob.: 9321287241 / 9321289027**

### **BORIVALI ACADEMY :**

313/314, 3<sup>rd</sup> Flr., V Star Plaza, Chandavarkar Rd., Near Saraswat Bank, Sundar Nagar, Borivali (W), Mumbai - 400 092

**Mob.: 9653304874 / 9321249713**

### **SATARA ACADEMY :**

Digvijay Building, 2<sup>nd</sup> Floor, Opp. S.T. Stand, Market Yard, Plot No. 13, Satara - 415 001

**Mob.: 74474 69324 / 25**

### **ONLINE :**

301, Shivkrupa Commercial Complex, Thane - 400 602

**Mob.: 91375 41508**

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## **ABOUT AFCAT**

The dream of working for the prestigious Indian Air Force is fulfilled by the aspirants by appearing for the Air Force Common Admission Test (AFCAT). The Air Force Common Admission Test (AFCAT) is conducted by the Indian Air Force. The exam is held twice a year in February and August/September, respectively, to select Class-I Gazetted Officers in Flying and Ground Duties (Technical and Non-Technical). AFCAT is a gateway for both male and female candidates who wish to join the Indian Air Force for both Short Service Commission in Flying Branch and Permanent Commission/Short Service Commission in Ground Duties for both Technical and Non-Technical roles. Candidates are selected based on their performance in the online exam and Air Force Selection Board (AFSB) interview. Candidates opting for Ground Duty (Technical) branches are required to appear in both AFCAT and Engineering Knowledge Test (EKT)

### **Type of Commission.**

- (a) **Permanent Commission (PC) for Men.** Candidates joining as PC officers would continue to serve till the age of superannuation in their respective branches as per their rank.
- (b) **Short Service Commission (SSC) for Men & Women.**
- (I) The engagement period for Flying Branch (Men and Women) SSC Officers is fourteen years from the date of Commissioning (Non extendable).
- (ii) The initial tenure for Ground Duty (Technical & Non-Technical) SSC Officers would be for a period of ten years. An extension of four years may be granted subject to service requirements, availability of vacancies, willingness, suitability and merit.

## **ELIGIBILITY CONDITIONS.**

### **(a) Nationality:**

Candidate must be a citizen of India as per Indian citizenship act, 1955.

### **(b) Age:**

- (I) **Flying Branch through AFCAT and NCC Special Entry:** 20 to 24 years
- (ii) **Ground Duty (Technical & Non-Technical) Branch:** 20 to 26 years
- (iii) **Marital Status:** Candidates below 25 years of age must be unmarried at the time of commencement of course.

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## **Educational Qualifications.**

### **(i) Flying Branch**

Candidates should have mandatorily passed with a minimum of 50% marks each in Maths and Physics at 10+2 level

**AND**

(a) Graduation with minimum three years degree course in any discipline from a recognized University with a minimum of 60% marks or equivalent.

**OR**

(b) BE/B Tech degree (Four years course) from a recognised University with a minimum of 60% marks or equivalent.

**OR**

(c) Candidates who have cleared Section A & B examination of Associate Membership of Institution of Engineers (India) or Aeronautical Society of India from a recognised University with a minimum of 60% marks or equivalent.

### **(ii) Ground Duty (Technical) Branch**

(aa) Aeronautical Engineer (Electronics) {AE (L)}. Candidates with a minimum of marks each in Physics and Mathematics at 10+2 level and a minimum of four years degree graduation/integrated post-graduation qualification in Engineering/Technology from recognized University

**OR**

cleared Sections A and B examination of Associate Membership of Institution of Engineers (India) or Aeronautical Society of India or Graduate membership examination of the Institution of Electronics and Telecommunication Engineers by actual studies with a minimum of 60% marks or equivalent in the following disciplines:-

- (aaa) Communication Engineering.
- (aab) Computer Engineering/Technology.
- (aac) Computer Engineering & Application.
- (aad) Computer Science and Engineering/Technology.
- (aae) Electrical and Computer Engineering.
- (aaf) Electrical and Electronics Engineering.

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- (aag) Electrical Engineering.
- (aah) Electronics Engineering/ Technology.
- (aaj) Electronics Science and Engineering.
- (aak) Electronics.
- (aal) Electronics and Communication Engineering.
- (aam) Electronics and Computer Science.
- (aan) Electronics and/or Telecommunication Engineering.
- (aao) Electronics and/or Telecommunication Engineering (Microwave).
- (aap) Electronics and Computer Engineering.
- (aaq) Electronics Communication and Instrumentation Engineering.
- (aar) Electronics Instrument & Control.
- (aas) Electronics Instrument & Control Engineering.
- (aat) Instrumentation & Control Engineering.
- (aau) Instrument & Control Engineering.
- (aav) Information Technology.
- (aaw) Spacecraft Technology.
- (aax) Engineering Physics.
- (aay) Electric Power and Machinery Engineering.
- (aaz) Infotech Engineering.
- (aba) Cyber Security.

**(ab) Aeronautical Engineer (Mechanical) {AE (M)}**. Candidates with a minimum of 50% marks each in Physics and Mathematics at 10+2 level **and a minimum** of four years degree graduation/integrated post-graduation qualification in Engineering/Technology from recognised University

**OR**

cleared Sections A & B examination of Associate Membership of Institution of Engineers (India) or Aeronautical Society of India by actual studies with a minimum of 60% marks or equivalent in the following disciplines:-

- (aaa) Aerospace Engineering.
- (aab) Aeronautical Engineering.
- (aac) Aircraft Maintenance Engineering.
- (aad) Mechanical Engineering.
- (aae) Mechanical Engineering and Automation.
- (aaf) Mechanical Engineering (Production).
- (aag) Mechanical Engineering (Repair and Maintenance).
- (aah) Mechatronics.
- (aaj) Industrial Engineering

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- (aak) Manufacturing Engineering.
- (aal) Production and Industrial Engineering.
- (aam) Materials Science and Engineering.
- (aan) Metallurgical and Materials Engineering.
- (aao) Aerospace and Applied Mechanics.
- (aap) Automotive Engineering.
- (aaq) Robotics
- (aar) Nanotechnology
- (aas) Rubber Technology and Rubber Engineering.

**(iii) Meteorology.** Passed 10+2 and Post Graduate Degree in any Science stream/ Mathematics/ Statistics/ Geography/ Computer Applications/ Environmental Science/ Applied Physics/ Oceanography/ Meteorology/ Agricultural Meteorology/ Ecology & Environment/ Geo-physics/ Environmental Biology with **minimum** of 50% marks in aggregate of all papers put together (Provided Maths and Physics were studied at Graduation Level with a minimum of 55% marks in each).

## **AFCAT –Scheme of Examination:**

The written examination will consist of two parts i.e AFCAT and EKT.

The first section will consist of a total of 100 questions while the second part will have 50 questions.

Three marks will be awarded for the correct answer and negative one mark or every incorrect question. The detailed AFCAT Exam Pattern is as follows.

Exam	Parts	Duration	Total Questions	Max. Marks
AFCAT	General Awareness, Reasoning, Verbal Ability, Numerical Ability, and Military Aptitude Test	120 minutes	100	300
Engg. Knowledge Test	Mechanical/Electrical & Electronics/Computer Science	45 minutes	50	150

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## **AFCAT Syllabus - AFCAT written test**

The AFCAT written test will judge the basic aptitude of the applicant through subjects like English, General Awareness, and Numerical Ability. The test will also judge the Military Aptitude of the candidate. The highest number of questions will be asked in this section, i.e. 100. The duration of this test will be 2 hours.

### **AFCAT Syllabus - English**

The following are the topics that will be covered in the English section of the AFCAT written test.

- Synonyms
- Comprehension
- Idioms and Phrases
- Sentence Completion/Filling in of correct word
- Error Detection
- Antonyms
- Vocabulary

### **AFCAT Syllabus - General Awareness**

The standard of questions for general awareness will be as that as of the graduate level. Candidates are expected to possess knowledge of the following topics.

- History
- Geography
- Civics
- Environment
- Defense
- Art
- Culture
- Basic Science
- Politics
- Current Affairs
- Sports etc.

### **AFCAT Syllabus - Numerical Ability**

The level of difficulty for this section will be that of Matriculation level and not from

- the graduation level
- unlike other sections
- Time and Work
- Simple Interest
- Profit & Loss
- Average
- Percentage
- Decimal Fraction
- Ratio & Proportion
- Time & Distance (Trains/Boats & Streams).

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## **AFCAT Syllabus - Engineering Knowledge Test**

This test will be given by only those candidates who will apply for Technical posts. In this section, questions will be specific to the stream of graduation like Computer Science, Mechanical, and Electrical & Electronics. The questions for this section will be asked from the core technical subjects of the mentioned branches. A total of 50 questions will be asked in this section.

## **AFCAT Syllabus - Engineering Subjects**

The syllabus for the Engineering Knowledge Test will consist of important fundamental subjects from the concerned streams.

Computer Science Engineering	Electronics Engineering	Mechanical Engineering
<ul style="list-style-type: none"><li>• Analog and Digital Electronics</li><li>• Switching Theory</li><li>• Information Technology</li><li>• Electronic Devices</li><li>• Computer Networks</li><li>• Network Theory Design</li><li>• Telecommunication Systems</li><li>• Microwave Engineering</li><li>• Antenna and Wave</li><li>• Propagation</li><li>• Radar Theory</li><li>• Instrumentation</li><li>• Electrical Engineering</li></ul>	<ul style="list-style-type: none"><li>• Control Engineering</li><li>• Analog and Digital Electronics</li><li>• Electrical Engineering</li><li>• Instrumentation</li><li>• Microwave Engineering</li><li>• Antenna and Wave</li><li>• Electronic Devices</li><li>• Control Engineering</li><li>• Telecommunication Systems</li><li>• Propagation</li><li>• Network Theory Design</li><li>• Switching Theory</li><li>• Information Technology</li><li>• Computer Networks</li></ul>	<ul style="list-style-type: none"><li>• Engineering Mechanics</li><li>• Fluid mechanics/ Hydraulic Machines</li><li>• Thermodynamics</li><li>• Aircraft Structures</li><li>• Theory of Machines,</li><li>• Automotive Engineering</li><li>• Power Plant Engineering</li><li>• Industrial Engineering</li><li>• Manufacturing Science</li><li>• Materials Science</li><li>• Flight Mechanics</li><li>• Aerodynamics</li></ul>

## **AFCAT CUT OFF**

AFCAT	AFCAT Cut Off	EKT Cut Off
AFCAT (1) 2020	153	40
AFCAT (1) 2019	133	50
AFCAT (2) 2018	140	55
AFCAT (1) 2018	155	60
AFCAT (2) 2017	160	60
AFCAT (1) 2017	150	60
AFCAT (2) 2016	148	60
AFCAT (1) 2016	132	52
AFCAT (2) 2015	144	52
AFCAT (1) 2015	126	55
AFCAT (2) 2014	123	45

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## **AFSB (AIR FORCE SELECTION BOARD) Rounds**

AFSB Selection and Testing Rounds will be conducted in two stages:

1. Intelligence Test
2. Psychological Test, Group Test and Personal Interview.

## **STAGE I**

- Stage I of AFSB will require the candidates to undergo an Intelligence Test. The result will be declared on the spot and to proceed, Candidates will have to get their documents verified.
- The Stage I eligible candidates will have to undergo Stage II round.
- Candidates who do not qualify the Stage I will have to leave the venue.

## **STAGE II**

- Stage II will be carried out in Five days with Psychological Test, Group Test and Personal Interview.
- Candidates should perform well to be selected for IAF recruitment.
- Stage II is crucial for the final selection of the candidates.
- Candidates who have applied for Flying Branch will have to qualify Computerized Pilot Selection System (CPSS) and Pilot Aptitude Battery Test (PABT)

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