

**INSIGHT**

# *AN OVERVIEW OF CAREER CHOICES*

"The full power of a banyan tree is equal to the power in the seeds of the tree. A few of the seeds directly flourish as banyan trees and many seeds die. Sometimes, the seeds, due to certain circumstances and environmental conditions, get damaged and become part of the soil as manure, making the next generation stronger and more powerful, thus exhibiting its aim of achieving greater heights. "

This excerpt from T. Saravanan's message to President A. P. J. Abdul Kalam should be a motivation to students...

A nation's wealth is the young generation that can live up to its opportunities and make the most of its resources. Instill in the tender minds the desire to achieve what another has not, leaving a trail for the others to follow.

It is change, continuing change, inevitable change, that is the dominant factor in society today. No sensible decision can be made any longer without taking into account not only the world as it is, but also the world as it will be.

**-Isaac Asimov**

The pages to follow throw light on the various options available to students for studies after Class X. Weigh the outcome of the subject options before paving the path for your child's future.

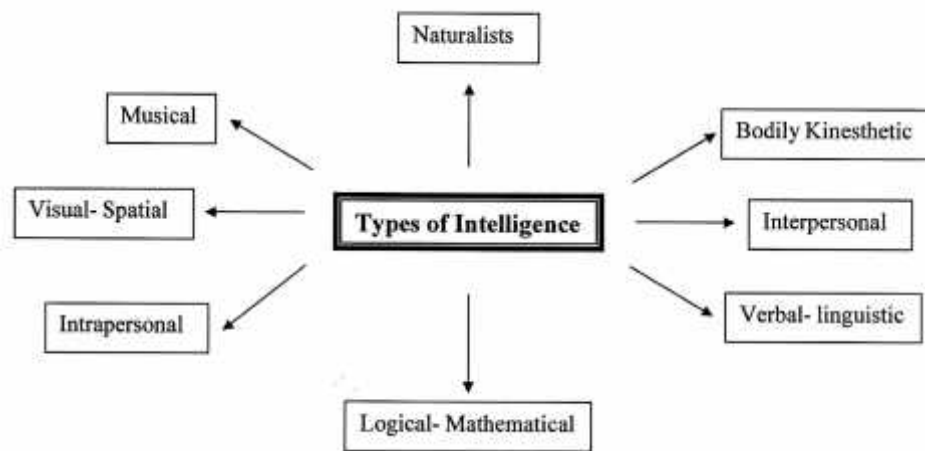
As it is said, Thinking is the capital, Enterprise is the way, Hard work is the solution.

An appropriate decision would be one which reflects your child's future, nurtured by his talent rather than what you visualize his future to be.

## Theory of Multiple Intelligence

There are a wide variety of abilities that humans display. A child who masters multiplication need not be more intelligent than a child who struggles to do so. He may be stronger in another kind of intelligence and therefore he may

- 1) best learn through different approach
- 2) be looking at it at a deeper level which may highlight mathematical intelligence higher than the child who memorizes.



### Bodily Kinesthetic:

Such people are good at body movements and physiology. They can perform difficult physical activities with ease. eg. Sports / dance etc.

Careers- Athletes, Dancers, Sportsmen, Military personnel etc.

### Interpersonal:

These people are very good at interaction with others. Characterized by sensitivity to others moods, feelings & ability to motivate.

Careers- Sales, Politicians, Leaders, Managers, Social workers, Teachers etc.

### Verbal-linguistic:

They are very good with spoken or written words. They display an ease with languages and words. They are good at reading, writing, story telling and memorizing spellings and words.

Careers- Writers, Lawyers, Journalists, Poets, Teachers etc.

### Logical-Mathematical:

Good at abstraction, logic, reasoning, numerical activities, scientific observation & conclusion.

Careers- Scientists, Mathematicians, Economists, Engineers, Doctors, Computer programmers etc.

### Intrapersonal:

These people can introspect themselves and are good at self reflective capacities. They have a deep understanding of an individual's strength, weakness.

Careers- Counsellors, Psychologists, Philosophers, Writers, Theologians etc.

### Visual-Spatial:

Good at vision & spatial judgment, these people can mentally manipulate objects solve puzzles. They have a strong visual memory & sense of direction. They have a combination of mathematical & body kinesthetic abilities.

Careers- Engineers, Artists, Architects, Writers, Theologians etc.

### Musical:

These people display a good sense of rhythm, hearing, music and acoustics. They are able to sing, play musical instruments & compose music. They also have a strong auditory sense.

Careers- Singers, Musicians, Conductors (Orchestra, Symphony), etc.

### Naturalists:

These people are good with nature, nurturing, and natural surroundings. They show a great sensitivity to nature and are good at identifying, classifying and collection of species etc.

Careers- Conservation lists, Horticulturist, Scientist, Farmers etc.

## CHECK WHERE YOUR WARD'S INTEREST LIES: -

- If your ward has interest in knowing why and how things work or has interest in construction activity then his/ her related vocation is engineering, technical & physical sciences, computers.
- If your ward takes interest in knowing why & how of living creatures including human beings, his/ her related interest can be in health & life sciences.
- If words fascinate your ward & he/ she is interested in the use of words & creative writing, his/ her interest can be in linguistics and literature.
- If your ward loves to work with people for his/ her own gains, related vocation is in areas like sales, entrepreneurship.
- If moving outdoors, travelling places interests your ward, then his/ her related vocation is outdoor jobs like the tourism industry.

Interests are dynamic factors in occupational choice.

We must also understand that physical and health factors along with the merit must be taken into consideration while selecting an occupation.

Different occupations demand different physical requirements.

For example, jobs in Defence Services, be it Army, Navy, Air Force Or Police, need physical standards.

## MOVING AHEAD...

### The Stream of Humanities

The stream of Humanities is also known as the Arts.

For subjects offered by ISC for std XII  
refer to <http://www.cisce.org/>

For subjects offered by Maharashtra State Board for std XII  
refer to <https://mahahsscboard.maharashtra.gov.in/hscsub.htm>

For subjects offered by CBSE for std XII  
refer to <http://cbseacademic.in/curriculum.html>

| SUBJECTS                  | PROBABLE PROFESSIONS   |
|---------------------------|--|
| English & other languages | Teaching, Journalism, Linguistics, Public relations , Advertising, Translation, Copy writing                     |
| History                   | History, Teaching, Archaeology, Curator, Archivist, Epigraphy, Numismatics, Travel & Tourism Management          |
| Geography                 | Regional Planning, Meteorology, Geology, Travel & Tourism Management, Aircrew.                                   |
| Economics                 | Economics, Banking, Indian Economics Services, Finance, Human resource management , International Monetary Fund. |

## The Stream of Science

The subjects generally offered are [HSC]:-

English----- ( Compulsory)

A second language -- ( Compulsory — choice of language varies with colleges)

Mathematics ----- ( Compulsory except in colleges where Geography or Psychology is an option)

Physics----- ( Compulsory )

Chemistry ----- ( Compulsory )

Biology ----- ( Compulsory except in colleges where vocational subjects like Electronics and Computer science are options)

Students can take a combination of English, PCMB and IT; English, PCM and Electronics or English, PCM and Computer Science.

If the student opts for any of the vocational subjects, he/she would be required to drop both Biology and second language.

With high marks in PCM/PCMB students can take up any of the following courses in Engineering and Technology: (B. Tech.) / B.E.

|  |                      |
|--|----------------------|
| Electronics and telecommunications           | Aeronautical         |
| Electrical                                   | Aviation             |
| Mechanical                                   | Agricultural         |
| Computer                                     | Bio-medical          |
| Civil  | Micro-electronics    |
| Chemical                                     | Mining               |
| Material and metallurgical                   | Environmental        |
| Industrial Instrumentation and Production    | Ceramic              |
| Acoustical and Sound Engineering.            | Construction         |
| Bachelor of Information technology: (B.I.T.) | Textile              |
| Bachelor of Computer Applications: (B.C.A.)  | Leather technology   |
| Bachelor of Architecture: (B.Arch.)          | Packaging technology |
|  | Space technology     |
|  | Marine               |
|  | Genetic.             |

A Student may choose to become a commercial pilot or join the Merchant Navy. After tenth a student can opt for technical, diploma courses in Hardware, Mechanics and do away with XII exams. After 4 years of diploma he has the option to go for graduation.

(Vocational training is given)

With PCB, student may choose one of the following after qualifying

AIPMT ( ALL INDIA ) OR CET ( FOR MAHARASHTRA)

Medicine:

MBBS (Bachelor of Medicine and Bachelor of Surgery)

BDS (Bachelor of Dental Surgery)

BUMS (Bachelor of Unani Medicine and Surgery)

BAMS (Bachelor of Ayurvedic Medicine and Surgery)

BHMS (Bachelor of Homeopathy and Medicine and Surgery) BNYS (Bachelor of Naturopathy and Yogic Sciences)

Paramedical:

Medical Laboratory technology, Nursing,

SpeechTherapy, Physiotherapy ,Occupational Therapy, Optometry

Prosthetics, Forensic Science

Bachelor of Pharmacy: (B.Pharm.)

Bachelor of Biotechnology, Biomedical engineering. Bachelor of Veterinary Sciences and Animal Husbandry: (B.VSc and AH)

Agriculture: (B.Sc. Agriculture)

Horticulture, Poultry and Dairy Farming

Forestry, Food Science and Technology, Agriculture and Allied Fields.

Students aspiring for careers in engineering, mining and other related fields, the following exams are conducted.

### **IIT – JEE MAINS ( FOR ADMISSION TO NITs/ IIITs/ GFTIs)**

| <b>Course</b>      | <b>Required Criteria based on Class 12th / Equivalent qualifying Examination</b>   |
|--------------------|--|
| B.E/B.Tech         | 1-Language, 2-Physics, 3-Mathematics,<br>4-Any one of (Chemistry, Biology, Biotechnology, Technical Vocational Subject), 5-Any other subject.<br><br>With at least 45% marks (40 % in case of candidate belonging to reserved category) in each of the subjects. |
| B.Arch./B.Planning | Mathematics subject along with 50% marks in total including five subjects.   |



## IIT – JEE ADVANCED

( FOR ADMISSION TO IITs and ISM, IISc , IISER, IIST, RGIPT)

The candidate must be among top 1, 50, 000 students in JEE –MAINS.

The test is conducted both online and offline(paper pen) mode.

## BITSAT

The candidate should have obtained a minimum of aggregate 75% marks in Physics, Chemistry and Mathematics subjects (if he/she has taken Mathematics in BITSAT) or a minimum of aggregate 75% marks in Physics, Chemistry and Biology subjects (if he/she has taken Biology in BITSAT) subjects in 12th examination, with at least 60% marks in each of the Physics, Chemistry, and Mathematics / Biology subjects.

CET (States where applicable)

For a career in medicine the following exams are conducted:

AIPMT [ ALL INDIA TEST BY CBSE – pen and paper mode only]

AFMC

JIPMER

CET (states where applicable)

Students can opt for Home Science with Science or with Arts. For those choosing to take up the Home Science stream, the subjects offered are :

English - compulsory A second language

Applied Chemistry and Biology (For Home Science with Science)

Environmental Science and Ecology Consumer Education

Psychology (For Home Science with Arts)

Specialization: Food and Nutrition, Resource Management, Human Development and Family Studies, Extension Education, Textile and Clothing , Communication and Still Photography and Audio —Visual Production.

| SUBJECTS    | PROFESSIONS  |
|-------------|--|
| Biology     | Botany, Zoology, Ecology and Environmental Science, Nutrition and Dietetics, Biotechnology, Genetic Engineering, Biochemistry, Microbiology, Anthropology, Bio-Informatics.  |
| Physics     | Nuclear Physics, Astrophysics, Molecular and Atomic Physics, Plasma Physics, Applied Physics, Biophysics, Chemical Physics, Space Physics, Meteorology, Astronomy, Electronics, Medical Physics.   |
| Chemistry   | Nuclear Chemistry, Industrial Chemistry, Applied Chemistry, Pharmaceutical Chemistry, Alchemy, Food Technology, Biochemical Engineering, Industrial Fermentation, Oil, Food, Petrol, Chemical and Cellulose technology, Polymer technology |
| Mathematics | Operation Research, Computer Application, Astronomy, Investment Analysis, Research Banking, Applied Math.  |
| Statistics  | Banking, Computing, Statistical Analysis, Financial Analysis, Demography.  |

**All admission to Engineering as well as Medical colleges in the state of Maharashtra will be purely on the basis of marks obtained in MHT-CET [Maharashtra Health and Technical Common Entrance Test] exam.**

### **Overview of MHT CET Medical / Engineering**

|                   |   |
|-------------------|---|
| Exam Name         | Maharashtra Common Entrance Test  |
| Commonly Known as | <b>MHT CET</b>  |
| Type              | Undergraduate (UG)  |
| Level             | State Level Exam  |
| Exam Stream       | Medical / Engineering / Pharmacy Entrance Exam  |
| Courses Offered   | MBBS, BDS, BAMS, BHMS, BUMS, BPTTh, BOTTh, BP&O, BASLP and BSc Nursing / Various Engineering Courses (B.E., B.Tech.) / Pharmacy Courses |
| Exam Date         | First week of May   |
| Conducted by      | Government of Maharashtra   |
| Colleges          | Government and Private Medical / Engineering Colleges   |

#### **ENVIRONMENTAL SCIENCE:**

This science deals with the study of living beings and their environment .Environmental scientists are involved in environmental education, environment related technology and laboratories for soil and water testing as well as pollution detection and control.

## The Stream of Commerce

English -- (Compulsory)

A second language -- (Compulsory — choice of language varies with colleges)

Economics -- (Compulsory)

Organization of Commerce -- (Compulsory)

Book Keeping & Accountancy — (Compulsory)

Business Mathematics Or Secretarial Practice - Choice between the two subjects can be made.

(Leading commerce colleges have made mathematics mandatory for XI, XII)

## PROFESSIONS

Actuary, Banking, Chartered Accountancy, Company Secretary, Cost and Work Accountancy (ICWA), Economist, Financial Analysis, Financial Management, Insurance, Sales Tax Practice, Chartered Financial Analyst .

Many students are still unaware that architecture is a career option even for those who did not take up science in class XII. Those from commerce and humanities streams can also get into architecture provided they have studied mathematics in class XII. According to the Council of Architecture (CoA), only maths is essential to apply for bachelor of architecture contrary to the popular perception that those who haven't studied physics, chemistry and maths (PCM) can't dream of becoming architects.

**To apply for architecture you are only required to have studied maths in class XII and secured at least 50% aggregate.**

### Other Horizons:

**Music- BFA (Hindustani/ Carnatic) in instrumental or vocal.**

Admissions are based on certain pre-requisite training and knowledge in the same genre. Candidates have to appear for an admission test based on an interview and practical performance. The courses are affiliated to Gandharva Mahavidyalay (Varanasi) (Prathmik, Madhyamik, Vishaarad in both, Hindustani and Carnatic) or to the University of Mumbai.

### **Dance- BFA**

Admission criteria is the same as in music.

Courses are affiliated to the University of Mumbai and are conducted in prestigious institutions like the Nalanda Nritya Mahavidyalaya and the Raja Rajshwari Kala Kendra etc.... They offer courses in various Indian dance forms. Students have to decide on any one specific dance form for specialization.

**Drama-** After Graduation a student can pursue courses at the NSD (Delhi) or the FTII (Pune).

**Business Administration and Management Studies, Mass Media and Information Technology** are career options that are open to students of all the academic streams after Std. XII.

Graduates with interest in either History, Civics, Political Science, Economics or in the working of Social and Political System of the country are ideally suited for IAS, NDA, IFS, IPS and IRS. A graduate student from any stream may prepare for this career.

“Nobody, but the man with passion towards his dreams is capable of reaching his goals.”

## OTHER CAREER OPTIONS

| COMMON PROFESSIONS  | SUBJECTS  |
|---|---|
| Social Work   | Sociology, Languages, History,  |
| Paramilitary Forces<br>(R.P.F., C.R.P.F., B.S.F., C.I.S.F.)   | Physical Training, Sports, Science,<br>Languages                          |
| Entrepreneurship  | Any specific subject of your choice.                                      |
| Research  | Any specific subject of your choice.                                      |
| Teaching  | Any specific subject of your choice.                                      |
| Insurance   | Economics, Math, Business Studies, Law.                                   |
| Fine Arts   | History of Arts, Drawing.   |
| Interior Designing  | Art, Business Designing, English.   |
| Photography   | English, Math, Art, Physics, Chemistry.                                   |
| Sports  | English, Math, Science, Physical  |
| Travel & Tourism  | English, History ,Geography   |
| Stock Broking   | English, Math, Accounts, Statistics                                       |
| Mass Communications   | Languages & Co- curricular subjects                                       |
| Human Resource Management                                     | Economics ,Math, Law, Psychology,<br>Sociology                            |
| Hotel Management  | Business Studies, Psychology, Economics,<br>Languages.                    |
| Banking   | English , Math, History, Geography,<br>Economics, Accountancy             |
| Business Management   | English, Math, Economics, Computing,<br>Accountancy, Business Study, Law. |
| Airlines<br>( Commercial Pilot, Ground Staff & Cabin<br>Crew) | English, Science, Math, Geography   |
| Marketing   | English , Math, Languages   |
| Library Science   | English , History , Science   |
| Law   | English ,History  |
| Fashion Designing   | Art, Designing, English, Math   |
| Gem & Jewellery Designing                                     | Art , English, Math   |
| Film Making   | English, Drama, Languages   |
| Indian Civil Services   | Math, English + any other subject   |

When making a choice it is important to look at and seriously consider the subjects offered in the stream, keeping in mind the broad career path.

“Every field has a career waiting.”

## Emerging Sectors In Emerging Economies Of The World

### BRIC- Brazil, Russia, India, China.

1. Pharmaceutical & Health Cars — Clinical trials. Research. Lab Technicians.
2. Retail — Malls . Logistics.
3. Telecommunication & Information Technology.
4. Manufacturing — Food, Chemicals, Capital goods.
5. Infrastructure - Road engineers. Constructions
6. Power & Energy- Solar, Wind mill, Green Engineering.
7. Animation — Movies. Advertising.

“Change is the only factor permanent in life”

## HOT CAREERS OF FUTURE

|   |  |   |
|---|--|---|
| <p style="text-align: center;"><b>Nutrition and Dietetics</b></p> <p>A degree in Nutrition gives us an insight about the world of health and hygiene.</p>   | <p style="text-align: center;"><b>Radio Jockey</b></p> <p>Concerns hosting television and live shows, voice-overs for television and radio ads, lending your voice to audio magazines and documentaries, scripting and production for radio and TV shows, radio broadcasting on the Net.</p> | <p style="text-align: center;"><b>Biotechnology</b></p> <p>Has tremendous scope for research in the fields of genetics, microbiology and emerging areas in healthcare and nutrition.</p>  |
| <p style="text-align: center;"><b>TV &amp; Web Journalism</b></p> <p>Involves current affairs / events, interviews, reporting script writing; web editing deals with content creation of the news page</p>  | <p style="text-align: center;"><b>Jewellery Designing</b></p> <p>A creative art which focuses on not only creating designs but also creating jewellery that has commercial value in the market.</p>  | <p style="text-align: center;"><b>Event Management</b></p> <p>A course that teaches how to plan, promote, and organize a major event .There is a lot of creativity and vision involved in this field of study.</p>                          |
| <p style="text-align: center;"><b>Fashion Designing</b></p> <p>Involves the designing of any wearable apparel that is appealing and in step with the times.<br/>Concentrates on high volume production of affordable garments to fashion industry</p> | <p style="text-align: center;"><b>Call Centers</b></p> <p>Concerns selling products and services , offering customer support , or working to maintain a good relationship with customers .</p>   | <p style="text-align: center;"><b>Hotel Management</b></p> <p>Concerns area like banquet serving and cooking , cutlery identification and table etiquette - Service Industry –Hospitality Industry, Accommodation , Travel and Tourism.</p> |



### Health counselling and management

To equip students with the required skills not only to effectively counsel patients before and after the treatment of an ailment but also promote health care. An emerging sector.

### Wedding planners

To plan and manage weddings and the activities behind the scene. It involves coordinating between the vendors, photographers, Decorators, artists etc. This is a growing sector with rising demand and great potential for the future.

### Counselling and family therapy

The current urban nuclear family scenario has resulted in a large number of youngsters with high levels of stress and no one to turn to. This course enables one to intervene and counsel children and adolescents. Demand for these professionals is rising in schools, colleges, juvenile centres and old age homes.

### Artificial Intelligence Programmer

Is useful in smart homes, airport surveillance, voice- recognition software, ATMs.

### Art Psychotherapy

Is the use of visual medium in a therapeutic arena, which provides a foundation for self-exploration and understanding.

### Brand Management

Is concerned with market research and development, packaging, manufacturing, sales and distribution, communications, and business analysis and forecasting.

### Data Miner

Uses software to comb through huge databases ,crunch numbers and identify trends.

### Disaster Management

Is about managing disasters - natural or manual; finding ways to prevent, forecast and combat them .

### Ergonomics

Is the science dealing with the application of information of physical and psychological characteristics to the design of devices and systems for human use .

### Fashion Technology

Includes both the administration of the fashion business as well as background knowledge of a process of fabric production.

### Forensics

Involves the acquisition and analysis of scientific data for application to the study of crime investigation and criminal identification.

### Heritage Management

Is the newly introduced Bachelors course (BHM) in the university of Mumbai. It is custom —made for aspiring curators, archaeologists, urban planners, and those interested in reviving the crafts.

### Geographic Information System

Is the application of computer knowledge to map reading and making .

### Specialized Emerging Areas in Law

Includes a cyber law, intellectual property rights (patent laws), immigration etc.

### Nanotechnology

Is the hot field for research in technology . It involves reducing the sizes of various things ranging from electric batteries to pumps and motors.

### Visual Merchandising

Brings together a variety of design disciplines - primarily that of communication design, industrial design, and interior architecture - into a multi-disciplinary whole. It deals with a range of three dimensional designs like designs of stalls, pavilions, and overall interiors of trade fairs and exhibitions' sets.

### Fitness Instructor and Trainers

Fitness instructions and training courses are available nowadays in many universities . University of Pune and North Maharashtra University offers B.A. /B.Sc. Degree courses in Yoga.

### Sports Trainer

Includes professional sports participation and training ,as well as the establishment and running of facilities providing sports services . Coaches , athletics trainers, and fitness instructors train athletes to perform at their highest level.

A job satisfied becomes a profession A profession that brings joy becomes a VOCATION”

## FINANCIAL AID

Various institutions offer scholarships to students wishing financial aid for further studies. These schemes are offered to students studying at various levels-Junior College, Graduate Study, Post-Graduate or even higher.

Courses eligible for the schemes -

a) In India

School education including plus 2 stage ,Graduation courses ,Post Graduation courses and Professional courses.

Computer certificate courses of reputed institutes accredited to Department of Electronics, or institutes affiliated to university Courses like ICWA, CA, CFA, etc.

Courses conducted by IIM, IISc, HT, XLRI, NIFT, etc.

Courses offered in India by reputed foreign universities Evening courses of recognized institutes Diploma/ degree courses approved by UGC/ Govt/ AICTE/ ATOMS/ICMR, etc.

b) Abroad

Graduation (Considered as Under Graduation Courses)

Post Graduation: MCA, MBA, MS, etc.( Considered as Graduation Courses)

## BANKS OFFERING FINANCIAL AID FOR EDUCATION

1. Allahabad Bank
2. Andhra Bank
3. Bank of Baroda
4. Bank of India
5. Bank of Maharashtra
6. Canara Bank
7. Central Bank of India
8. Corporation Bank
9. Dena Bank
10. Federal Bank
11. HDFC Bank
12. IDBI Bank
13. Indian Bank
14. Indian Overseas Bank
15. Punjab National Bank
16. State Bank of Mysore
17. State Bank of Hyderabad
18. State Bank of India
19. The Karnataka Bank Ltd
20. The Saraswat Cooperative Bank Ltd
21. The South Indian Bank
22. UCO Bank

23. Union Bank of India
24. United Bank of India
25. Vijaya Bank

And many more....[ This list of banks is not exhaustive ]

#### STUDENT ELIGIBILITY:

Should be an Indian National

Should have secured admission to professional /technical courses through entrance test /selection process

Should have secured admission to foreign universities /institutions . Should satisfy age specification as well as percentage cut-off as requirements, where applicable.

#### EXPENSES CONSIDERED FOR LOAN:

Tuition fee payable to College / School / Hostel Examination / Library /Laboratory fee.

Purchase of books / equipments /instruments /uniforms .

Caution deposits / building funds / refundable deposits supported by Institution bills / receipts.

Travel expenses / passage money for studies abroad.

Purchase of computers essential for completion of the course.

Any other expense required to complete the course - like study tours project work, thesis , etc.

Depending on whether you would like to pursue undergraduate or graduate studies abroad, you would have different qualifying tests.

#### STUDYING ABROAD

##### STANDARDIZED TESTS WHEN APPLYING FOR UNDERGRADUATE LEVEL

SAT I - Scholastic Assessment Test- Reasoning Test

SAT II - Scholastic Assessment Test- Subject Tests

To enter into a reputed university the expected is 1800+

##### STANDARDIZED TESTS WHEN APPLYING FOR POST GRADUATE LEVEL

GMAT - Graduate Management Admission Test - For Business/ Management programmes all over the world.

Top B-schools require a score of above 700.

GRE - Graduate Record Examination - For Humanities, Sciences and Engineering in the US.

Top universities require a score of 310+

LSAT - Law Programmes in the US.

USMLE - Medicine Programmes in the US.

COMMON TESTS FOR BOTH UNDERGRADUATE AND POST GRADUATE LEVELS  
FOR ENGLISH PROFICIENCY:

TOEFL - Test for English as a Foreign Language - Required for almost all programmes in the US.

A good score in TOEFL is 100 and above.

IELTS - International English Language Testing System - Required for most universities in UK, Canada, Australia and New Zealand. A good score in IELTS is seven or above.

Web site to guide you:

- 1) [www.ip.wsu./education-abroad](http://www.ip.wsu./education-abroad)
- 2) [www.usembassy.at/en/us/educ.html](http://www.usembassy.at/en/us/educ.html)
- 3) [www.nrcsa.com](http://www.nrcsa.com)
- 4) [www.intstudy.com](http://www.intstudy.com)
- 5) [www.indiatimes.com](http://www.indiatimes.com)
- 6) [www.ifsabutler.org/newsevent.com](http://www.ifsabutler.org/newsevent.com)

Many Indian Universities have tied up for Degree courses with good foreign Universities and vice-versa

“No one who has immersed himself into work has ever failed.”

## MORE INFORMATION REGARDING ELIGIBILITY AND ATTRIBUTES FOR:

### Engineering Courses:

#### Eligibility:

The basic eligibility criteria for a BE / B. Tech is - 10+2 or equivalent examination, with Physics, Chemistry and Mathematics.

Selection to all Engineering courses is on the basis of:

- (a) marks secured in the final exams of 10+2 (with science subjects);
- (b.) through the means of entrance exams (joint entrance exam / JEE for the IITs and separate state level and national level exams for other institutions). Engineering courses are available at two levels. There are the degree and postgraduate degree courses offered by the engineering colleges and Institutes of Technology (IITs), and, the diploma courses available at Polytechnics.

**Aeronautical Engineers** work with one of the most technologically advanced branches of engineering. Their work involves the designing, construction, testing and operation as well as maintenance of aircraft and aircraft components. The main thrust in this area is on design and development, which extends even to space and satellite research.

**Marine Engineers** are responsible for the safe running of all engines, boilers, refrigerating and sanitary equipment, deck machinery and steam connections of marine ships, and the maintenance, repair and construction of all marine machinery. This also includes the supervision of engine crew involved in operating the machines, and checking for smooth functioning of all steam engines, electric motors, propulsive engines, etc.

**Computer Engineers** work with computers, which are today, the most important office automation products. They design the computer and its control systems (the hardware) and also develop computer software. They are constantly engaged in improving the end product and building state-of-the-art equipment such as super computers, multimedia machines, graphic terminals, laser and inkjet printers, Pentium based machines, etc.

**Electronics and Communication Engineers** design, fabricate, maintain, supervise, and manufacture electronic equipment used in the entertainment media, in hospitals, in the computer industry, for communication and in Defence Services. They work with devices that use extremely small amounts of power, such as micro processors, fibre optics, etc.

**Instrumentation engineers** are responsible for the design, construction and maintenance of instruments and entire instrumentation systems. The type of instruments needed for ensuring better quality and efficiency of the end products, in any industrial undertaking, are decided by the instrumentation engineer.

**The role of an Electrical Engineer** comprises the design and development of more efficient electrical machinery, power systems, and control equipment for the generation, transmission and distribution of electrical energy and telecommunication. With the increasing demand for electrical energy, the development in audio and video communication systems and the automation in this industry, electrical engineers have become indispensable to society today.

**Agricultural Engineers** apply engineering principles to all activities related to agriculture and horticulture. Improvement in agricultural farm machinery, farm structures, rural electrification, biogas, new technologies in the design and manufacture of agricultural products and also conservation of soil and water are some of the jobs handled by an agricultural engineer.

This basically implies looking after the mechanization of agricultural activities for the smooth functioning and efficient increase in food productivity. Personal attributes required Organizing ability, practicality, ability to get on well with people of all types- at all levels in the hierarchy, -from operatives to heads of research and managing director, ability to keep calm under pressure and in inevitable crises, leadership skills and a liking for being at the centre of action.

It is also necessary to like working with tools, drawing sketches of complex things and operations, and conceptualizing forms and structures. While a high level of practicality, skill, accuracy, understanding power, capacity to toil, and perseverance are needed in ample quantity, one must also have a knack for numbers and the ability to express one's ideas precisely to others.

### Entry into Merchant Navy

The Merchant Navy is a non-combatant commercial fleet which deals with transporting cargo and occasionally, passengers, by sea to destinations around the world. And while life in the merchant navy may be full of fun and adventure, it is also hard work that requires the knowledge of navigation, and the maintenance and the safe operation of a variety of vessels which travel long distances across the seas.

#### Eligibility

The minimum eligibility for courses in Nautical Science as well as Marine Engineering is 10+2 or equivalent examination, with Physics, Chemistry and Math.

Those who apply for the degree courses should also be mentally and physically fit. Navigators should have perfect eyesight, whereas marine engineers are allowed to wear spectacles for eyesight up to plus/minus 2.5. Colour blindness is a disqualification for the merchant navy. After completion of the three-year B.Sc. programme in nautical science, candidates have to complete a minimum of two years service at sea before they appear for the Second Mate's examination to obtain a Certificate of Competency of Second Mate given by the Ministry of

Surface Transport, required for getting a job on board a merchant ship. The passing-out certificate of the Training Ship (TS)

Chanakya is recognized as being equivalent to one year of sea service. Those who join as Deck Cadets directly with shipping companies have to complete a minimum of three years service at sea, before they can take the examination.

### Selection

Candidates for the two institutes are selected through the Joint Entrance Examination conducted by the Indian Institutes of Technology. The examination is followed by personal interviews and counselling to assess the candidate's suitability for a career in the merchant navy.

Personal attributes required important personal attributes required for Merchant Navy officers include physical and mental stamina, practical intelligence, scientific temper, spirit of adventure, team spirit, sporting spirit, cheerful disposition, love for travel, self-confidence, and adaptability.

### Training as a Commercial Pilot

In order to become a pilot, one has to first obtain a Student's Pilot Licence (SPL) which is similar to a learner's licence for driving a car, followed by a Private Pilot's Licence (PPL), before obtaining the Commercial Pilot's Licence (CPL). These licences are issued by the M/o Civil Aviation on qualifying the exams and clocking the prescribed flying experience.

To get an SPL, the minimum educational qualification is 10+2 with Math and Science. There is also an entrance exam. The minimum age for joining a flying club is 16 years for SPL and 18 years for CPL. If one meets the age requirements and more importantly, if one has done his / her 10+2 with Math and Science, he/ she could proceed to acquire the qualifying licences.

A word of caution. Training to be a pilot can be an expensive proposition. It can cost anywhere in the range of 10 lakh rupees and above, depending on whether one studies in India or abroad. Also, one needs to be absolutely fit throughout. One will not only have to clear an exacting medical examination at the time of entry but also every 6-12 months throughout his/ her career.

### Bachelor of Computer Applications (B.C.A)

Candidate for admission to the Bachelor of Computer Application course must have passed H.S.C. Examination with at least 45% (40 for reserved category) marks excluding practicals. The candidate must have passed the HSC examination with English and any one of the following subjects under General or Science stream, i.e. Mathematics or Statistics or Business mathematics or Accountancy/Elements of accounting or Accountancy & book keeping. The admission is made at Institute level based on the marks obtained in HSC examination.

### Indian Civil Services

The Indian Administrative Service (IAS)

- The Indian Police Service (IPS)
- The Indian Forest Service (IFS)
- 

Officers of the Central Services, on the other hand, wherever they might be posted, serve the Government of India only. Central Services are of two types-

Groups A & B.



Group A Central Services comprise various different services/ posts, These include:

- The Indian Foreign Service (IFS)
- The Indian Railway Service
- Indian Postal Service

Accounts and Auditing Services (including The Indian Audit and Accounts Service, The Indian Civil Accounts Service, The Indian Defence Accounts Service. The Indian Revenue Service .)

- Indian Customs and Central Excise
- The Indian Ordnance Factories Service
- The Indian Defence Estates Service
- The Indian Information Service
- The Central Trade Services
- The Central Industrial Security Force

### Eligibility

In order to appear for the combined services examination, the candidate must have at least a Bachelor's degree in any discipline from a recognized university. In order to apply for the Forest Service, a candidate must have a Bachelor's degree in any of the science subjects. Candidates applying for the Civil Services must be Indian Nationals above 21years of age as on August 1, and for the Forest Service, as on July 1 of the year of the examination. The upper age limit is as follows:

### Eligibility Table

| Category  | Maximum Age | Attempt   |
|---|-------------|---|
| General   | 32          | 6   |
| OBC   | 32+3=35     | 9   |
| SC/ST   | 32+5=37     | As many as upto age limit                                     |
| Physically disabled<br>(Blind, Deaf-mute, Orthopedic) | 32+10=42    | if general then 9<br>OBC then 9<br>SC/ST- then upto age limit |

## Selection

### Section-I

#### Plan Of Examination

The competitive examination comprises two successive stages:

1. Civil Services (Preliminary) Examinations (ObjectiveType) for the selection of candidates for Main Examination
2. Civil Services (Main) Examination (Written and Interview) for the selection of candidates for the various services and posts.

The preliminary Examination will consist of **two papers of Objective type** (multiple choice questions) and carry a maximum of 400 marks in the subjects set out in sub-section (A) of Section II. This examination is meant to serve as a screening test only;

The Main Examination will consist of written examination and an interview test. The written examination will consist of **9 papers** of conventional essay type in the subjects set out in sub-section (B) of Section II out of which two papers will be of qualifying in nature.

Candidates who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission at their discretion, shall be summoned by them for an interview for a Personality Test, The interview will carry 275 marks (with no minimum qualifying marks).

### Section - II

#### Scheme And Subjects For The Preliminary And Main Examination.

##### A. Preliminary Examination

The Examination shall comprise two compulsory papers of 200marks each.

##### B. Main Examination

The written examination will consist of the following papers:

## *Qualifying Papers:*

**Paper : A** - (One of the Indian Language to be selected by the candidate from the Languages included in the Eighth Schedule to the Constitution). **300 Marks**

**Paper : B English 300 Marks**

## *Papers To Be Counted For Merit*

| <b>Paper</b> | <b>Subject Name</b>   | <b>Marks</b> |
|--------------|---|--------------|
| Paper-1      | Essay   | 250          |
| Paper-2      | General Studies–I (Indian Heritage and Culture, History and Geography of the World and Society)                       | 250          |
| Paper-3      | General Studies –II (Governance, Constitution, Polity, Social Justice and International relations)                    | 250          |
| Paper-4      | General Studies –III (Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management) | 250          |
| Paper-5      | General Studies –IV (Ethics, Integrity and Aptitude)  | 250          |
| Paper-6      | Optional Subject – Paper 1  | 250          |
| Paper-7      | Optional Subject – Paper 2  | 250          |
|              | Sub Total (Written test)  | 1750         |
|              | Personality Test  | 275          |
|              | Grand Total   | 2025         |

**Candidates May Choose Any One Of The Optional Subjects From Amongst The List Of Subjects Given Below:**

## **List Of Optional Subjects For Main Examination:**

1. Agriculture
2. Animal Husbandry and Veterinary Science
3. Anthropology
4. Botany
5. Chemistry
6. Civil Engineering
7. Commerce and Accountancy
8. Economics
9. Electrical Engineering
10. Geography
11. Geology
12. History
13. Law
14. Management

15. Mathematics
16. Mechanical Engineering
17. Medical Science
18. Philosophy
19. Physics
20. Political Science and International Relations
21. Psychology
22. Public Administration
23. Sociology
24. Statistics
25. Zoology
26. Literature of any one of the following languages:

Assamese, Bengali, Bodo, Dogri, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Maithili, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Santhali, Sindhi, Tamil, Telugu, Urdu and English.

There is also a medical test, which is conducted before the allotment of services. It is an especially rigid test for those aspiring to join the IPS.

Roughly 800-900 candidates make it through the final selection each year, out of which the top ranking 100 candidates (approximately) are appointed to the IAS.

### **Selection to the Indian Forest Service:**

#### **Age Limits:**

A candidate must have attained the age of 21 years and must not have attained the age of 30 years.

The upper age limit prescribed above will be relaxable in the following cases:

Scheduled Caste or a Scheduled Tribe: upto a maximum of five years.

Other Backward Classes: upto a maximum of three years.

State of Jammu & Kashmir (Domiciled during the period from the 1<sup>st</sup> January, 1980 to 31<sup>st</sup> upto a maximum of five years. December, 1989:

## **Educational Qualifications:**

The candidate must hold a **Bachelor's degree** with at least one of the following subjects:

Animal Husbandry & Veterinary Science, Botany, Chemistry, Geology, Mathematics, Physics, Statistics and Zoology, Agriculture, Forestry, Agriculture Engineering, Forestry Engineering

## **Number of attempts:**

The maximum number of attempts restriction is effective from the examination held in 1984. In case other eligibility conditions apply:

General candidates: four attempts.

Scheduled Caste and Scheduled Tribe candidates: No restriction.

Other Backward Classes: seven attempts.

Selection:

## **Preliminary Examination:**

The Examination shall comprise of two compulsory Papers of 200 marks each.

## **Mains Examination**

The written examination consisting of the following papers:

Paper 1- General English 300 Marks

Paper 2-General Knowledge 300 Marks

Papers III, IV, V and VI.[ Each subject will have two papers: 200 marks for each paper. ]

[Any two subjects chosen from the following options: agriculture / botany /chemistry / physics /geology/ zoology / mathematics / agricultural engineering / chemical engineering / civil engineering/mechanical engineering excepting combinations of agriculture and agricultural engineering , chemistry and chemical engineering.]

### Horticulture and Floriculture

Horticulture is an aspect of agriculture that includes the cultivation of fruits and vegetables. It also covers floriculture, or the cultivation of flowers, and other agricultural practices.

Eligibility

The basic eligibility criteria for a B.Sc. in horticulture is 10+2 with sciences including Physics and Biology. For an M.Sc. in Horticulture, one must have a B.Sc. degree in Agriculture or a related subject.

Personal attributes required

Patience, ability to put in long hours, often outdoors, and in varying climatic conditions; perseverance, knowledge of seasonal plants, local plants and soil etc. Information Technology Eligibility

The eligibility varies with the course and level of study.

### Software Engineering:

Eligibility

10+2, with Physics, Chemistry, Mathematics, and preferably with Computer Science.

Undergraduate Course / B Sc in Computer Science: 10+2 in Science, Arts and Commerce.

- "B" level or graduate level DOE scheme: "O" level certificate of diploma in computers.
- Postgraduate Course/ MCA: Graduation in computer science or any other degree related to science, mathematics, statistics, or operational research
- E-commerce & web-page designing courses: Graduate with computer skills.

### MBBS

The qualification required for entrance is 10+2 or equivalent with Science subjects Physics, Chemistry and Biology or Pre - Medical or B.Sc. background. Personal attributes required Should have good memory and recollection ability, service mentality, stamina, patience, power of concentration, emotional stability, logical and analytical mind, willingness to learn throughout their career, ability to take timely decisions, self motivation etc. A doctor is also expected to possess a strong sense of responsibility as the patient's life depends entirely on him/ her.

### Forensic Science

Eligibility

To take up a masters course in forensic science one needs to be a graduate preferably with a first division in Physics, Chemistry, Zoology, Botany. Biochemistry, Microbiology, B.Pharma, BDS or Applied Science.

To become a specialist who conducts post-mortems to find out the cause of death. one must first secure an MBBS degree and then go for an MD in Forensic Science

Personal attributes required:

An inquisitive nature and a concern for accuracy is the main attribute required to be in this field. Must have keen observation, intelligence, an eye for detail, ability to work along with a team, a logical, practical and methodical approach. An aptitude for scientific analysis is essential.

### Paramedics

Personal attributes required

Paramedics have to have a strong scientific and technical bent of mind. Radiographers ,

especially , should not be allergic to chemicals .

## Dentistry

### Eligibility

Candidates who have passed the 10+2 examination with physics, chemistry and biology are eligible to apply for the competitive entrance examination.

### Selection

The all —India entrance examination conducted by the CBSE is common for both the MBBS and the Bachelor of Dental Sciences (BDS). The allocation of institutions, as for MBBS is based on merit. Other than the centrally run medical institutions there is at least one dental college in most states, where admission is governed by domiciliary status.

### Personal attributes required :

Patience; stamina; good health; power of concentration; manual dexterity, accuracy.

## Management Courses

The purpose of management is to make the best use of available resources, human, physical and monetary, in order to achieve an objective. The work of business management professionals covers basically all areas of work. They can, however train in several specialist areas. These could be in the areas of International management, dealing with international trade and business, and technology transfer; Public service management, which includes management of public enterprises, non-governmental organizations and co-operatives; Hospital management, responsible for the efficient running of hospitals; Hotel management concentrates on all aspects of hotel administration; Technology management, which specializes in all aspects of technology, including policy, financing and marketing ; and Rural management, which is concerned with management of rural resources, environment, agricultural produce and so on.

### Eligibility

As far as eligibility for management courses is concerned, admission to the BBS (bachelors in Business Studies) is granted to students who have cleared the 10+2 examination.

Admission to an MBA course , however , requires a good undergraduate degree (BA/ B.Sc./ B.Tech.) in any discipline and clearance of the entrance selection processes . The lower cut-off percentage might differ slightly among institutions but the minimum aggregate considered for admission is usually not less than 50% . Candidates in their final year of graduation may also apply for admission. However what is more important is the results of the entrance exam held For admission to all management institutes.

### Personal attributes required:

High IQ ; analytical mind ; imagination ; creativity ; ability to crisply grasp changing information; foresight regarding the implications and consequences of considered action; technical competence; business acumen; entrepreneurial flair, capacity for risk taking; decision making ability; high achievement orientation; ambition; physical and mental agility; self confidence;

leadership qualities; interpersonal skills; communication skills; ability to articulate ideas; spirit of team work; sociability; tact; patience and perseverance ; flexibility; courage; moral integrity; resilience; emotional stability.

### Selection

Most business schools follow a standard selection pattern. A written examination called the Common Admission Test (CAT) is held in December every year by the IIMs, and some management institutes; other institutions hold separate entrance exams, such as the Management Aptitude Test (MAT). Major newspapers carry an advertisement stating the method of application and the place, date and time of that which gauges verbal and problem solving abilities, comprehension and data interpretation.

### Hotel Management course

#### Eligibility

The eligibility criteria for admission to a Hotel Management Institute is, a school leaving certificate in the 10+2 system, with English as a compulsory subject. However, there are some Management Training Schemes also available for graduates in any discipline, from a recognized University.

#### Selection

The selection process for all institutes of Hotel Management includes a written test and an interview. In addition to this, admission to courses run by some private sector hotels and to management training schemes would depend on the candidate's performance in a group discussion and / or personality tests.

#### Personal attributes required

Those interested in Hotel Management have to have exceptional organizing abilities; business acumen ; a desire to please people ; an interest in all practical aspects of hoteliering ; willingness to work hard and during what are normally considered leisure hours.

### Institutes and Courses offered

#### 1) Manipal Academy of Higher Education , Manipal

Offers : Bachelor of Hotel Management (BHM)

PG Diploma in Dietetics

Entrance test for BHM is normally held in the last week of April Visit <http://admissions.manipal.edu> for more information

#### 2) Tolani Maritime Institute , Pune and

Birla Institute of Technology and Science ,Pilani

Offers : Four- year residential Bachelor of Science (BS) in Marine Engineering / Nautical Technology

Eligibility : Applicant should have completed 10+2 / equivalent with at least 60% aggregate marks in PCM and at least 50% marks in English in Class X or Class XII.

Entrance test normally held in the last week of April. Those with BISTAT- concerned year are exempt from online test of TMI .

Visit [www.tolani.edu](http://www.tolani.edu) and [www.bits-pilani.ac.in](http://www.bits-pilani.ac.in) for more information.



3) Manipal Academy of Higher Education ,Manipal Offers : MBBS , BDS, B.Pharm., B.Sc.Nursing .

Eligibility : Nationality — Indian

Applicant should have cleared 10 +2 , A Level ,IB, American 12<sup>th</sup> grade or equivalent with Physics, Chemistry , Biology and English with the minimum of 50% marks in PCB Entrance test is held normally in the last week of April.

Visit [http:// admissions.manipal.edu](http://admissions.manipal.edu) for more information

4) Times School of Marketing — New Delhi

Offers : One year PG Diploma in Marketing Management Eligibility : Applicant should have secured 50% marks at graduation level .

Entrance test normally held in the first week of April.

“Make it a habit of constantly updating your knowledge bank; it helps in the long run”

FOR MORE INFORMATION ON THE CONTENTS OF THIS BOOKLET

YOU MAY VISIT THE FOLLOWING WEBSITES:

[www.indbazaar.com](http://www.indbazaar.com)

[www.education.nic.in](http://www.education.nic.in)

[www.studymantra.com](http://www.studymantra.com)

[www.indiatimes.com](http://www.indiatimes.com)

[www.webindia123.com](http://www.webindia123.com)

Please note:

INFORMATION PROVIDED IN THIS BOOKLET IS FOR REFERENCE ONLY. PLEASE REFER TO NOTIFICATIONS ISSUED BY THE GOVERNMENT AND VARIOUS PRIVATE INSTITUTES TO GET UPDATED INFORMATION FOR ANY PARTICULAR YEAR.

ALL THE BEST

CAREER PLAN WORKSHEET

Now that you have some idea about the courses and your skills and abilities, begin charting your career course.

COMPLETE THIS EXERCISE

Career goals: .....  
.....  
.....

Requirements:.....  
.....  
.....

My strengths:.....  
.....  
.....

My shortcomings: .....  
.....  
.....

My plan to reach my goal

Qualifications required:

.....  
.....  
.....

Exams I need to appear for before I get there.....  
.....  
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