

Interact with Chairman
Frequently Asked Questions(FAQs)
Consolidated

Dear Users,

We have had a tremendous response ever since the launch of this page (**Interact with Chairman**). The questions have come from all corners of the globe, from various categories which include parents, students, educators, teachers, anxious relatives of young children, concerned principals and management of schools.

By far a large number of questions were related to the immediate interest, concern and need of students which is the area concerning academics and examinations.

These questions/queries/comments have been put together as **Frequently Asked Questions (FAQs)**. FAQs are more for the sake of convenience of the users. We hope that these FAQs will benefit many more people and reach out to a wider audience.

The FAQs have been categorized under various heads for the sake of convenience.

Note: It may also be mentioned that as a result of providing FAQs the Board will now reserve the right to answer questions as some queries would have been answered by the FAQs themselves.

I. ACADEMICS

a. Class - X

Science Practical examination at Secondary Stage.

Q.1 I am a Class X student. I heard that MCQ question paper for testing of skills in Class-X will also include Class IX practicals .Is it true? Please clarify.

Ans. Yes, it is true that Class X question paper on assessment of practical skills will include Class-X as well as Class-IX practicals in science syllabus from March 2009 examination.

Q.2 As you know the Science practical examination through MCQs will have Class-X experiments as well as Class-IX experiments. Don't you think it will be difficult for students to prepare for the same ? I am looking forward to your reply .

Ans. Practical work is a significant component of any Science Syllabus. If a student performs Class-IX and Class-X experiments carefully and seriously, he/she should not find it difficult to prepare for class-X MCQ examination. Inclusion of Class-IX experiments in Class-X examination paper will further strengthen the practical skills acquired by a student.

Q.3 Sir, I am not able to score full marks in Science practical skill paper. I have not seen any sample papers for practical skills. Please help me.

Ans. The Board has prepared the revised sample Question Papers in practical skills for class-X examination. This includes MCQs on experiment in Class-X and Class-IX syllabus. The whole document is available on CBSE website: www.cbse.nic.in. as well as in printed form.

In order to score better marks, students need to perform the experiments in class-IX and class X very carefully. One can also refer to the Board's document for practice.

Science, Class - X

Q1. I want to confirm that in Physics Electric motor and electric generator is coming or not?

Ans. The topic Construction and Working of Electric motor and electric generator are not in the syllabus of class X Science for 2009 examination. However what they are and the principles on which they are based should be known to the students.

Q2. In Science, please do provide HOTS Sample Questions?

Ans. Sample Question papers for class X Science are available on the CBSE website.

Social Science, Class - X

Q. 1	<p>What is the revised question paper pattern in Social Science?</p> <p>With the Board's decision to evaluate Disaster Management in Social Science of class X through Projects and Assignments only from the current academic session 2008-09 and the Board Examination 2009, the theory paper in Social Science will not contain any question from Unit 5 on Disaster Management. The revised distribution of 80 marks over the four units of Social Science syllabus for Class X will be as follows :-</p> <table border="1" data-bbox="386 1864 1377 1892"><thead><tr><th data-bbox="386 1864 532 1892">Unit</th><th data-bbox="540 1864 1044 1892">Subject</th><th data-bbox="1052 1864 1377 1892">Marks</th></tr></thead></table>	Unit	Subject	Marks
Unit	Subject	Marks		

	1	History	22 marks (20+2 marks for map question)
	2	Geography	22 marks (18 + 4 marks for map question)
	3	Political Science	18 marks
	4	Economics	18 marks
	<p>It may also be kindly noted that the Board's question paper in Social Science, Class X, will now have 29 questions. There will be only one map question consisting 6 items {2 items for History (2 marks) and 4 items for Geography (4 marks)}. The map question will have a choice in which either all the six items will be for identification or for location and labeling.</p> <p>The design and the Sample Question papers based on the revised pattern are given on the Board's website http://www.cbse.nic.in/curric-1/sqp-socsc-x-pap1-2009.pdf under the students' section in both Hindi and English versions. The printed copies will also be available at the CBSE's stores shortly.</p>		
Q. 2	Can there be a change in the blue print of the Board's question paper than the ones given in Board's sample question papers?		
Ans.	The design of a question paper gives weightages of marks to content units, forms of questions, difficulty level, etc. Based on this design, more than one blue print can be prepared. Hence the blue print of the question paper in Board Examination may change but the design of the question paper will remain the same.		
Q. 3	Can you please reduce the number of chapters in Social Science, History, Class X? It is too vast.		
Ans.	<p>In class X, Social Science, History Unit, students are required to study only five themes out of eight given in the syllabus in the following manner:-</p> <p>Sub-Unit 1.1: Any one theme out of :</p> <ul style="list-style-type: none"> • Theme 1 - Nationalism in Europe • Theme 2- National Movement in Indo-China <p>Theme 3- Nationalism in India is compulsory.</p> <p>Sub-Unit 1.1: Any two themes out of:</p> <ul style="list-style-type: none"> • Theme 4 - Industrialization • Theme 5 - Urbanization and urban lives • Theme 6- Trade and Globalization 		

	<p>Sub-Unit 1.3 : Any one theme out of:</p> <ul style="list-style-type: none"> • Theme 7-Print culture and nationalism • Theme 8 - History of Novel <p>Students are expected to understand the social and political realities inherent in various topics rather than mugging up information.</p>
Q. 4	<p>Is Disaster Management deleted from the Social Science syllabus?</p>
Ans.	<p>As per Board's circular No. 15/08 dated 11.05-08, Unit 5 of Social Science syllabus on Disaster Management will be evaluated only through projects and assignment. No question will be asked from this unit in the theory paper of Social science. Regarding further information on projects and assignments on Disaster Management please refer to Circular No. 20 dated 14.05. 2008 available on the Board's website http://www.cbse.nic.in/circulars/cir20-2008.doc</p>
Q. 5	<p>How many projects do we need to do in Social Science, Class X?</p>
Ans.	<p>A student is required to do only one project in Social Science, Class X. The list of topics/ themes for Social Science Project Work is given in the annexure of circular no.20/08 dated 14.05.2008 which can be downloaded from the Board's website http://www.cbse.nic.in/circulars/cir20-2008.doc</p>
Q. 6	<p>I am not able to get the Social Science Project list for March 2009 examination.</p>
Ans.	<p>The list of topics/ themes for Social Science Project Work is given in the annexure of circular no.20/08 dated 14.05.2008 which can be downloaded from the Board's http://www.cbse.nic.in/circulars/cir20-2008.doc</p>
Q. 7	<p>Where can we get material relating to project work on Disaster Management?</p>
Ans.	<p>Please refer to the annexure of circular no.20 dated 14.05.2008 given on the Board's website www.cbse.nic.in The annexure not only lists the topics/themes for projects but also gives instructions to teachers and students on how to do this project. The CBSE's Class X textbook on Disaster Management, titled Together Towards a Safer India, Part III is the basic sourcebook for doing most of the projects. It also contains addresses of various websites where relevant material can be found on different topics.</p>
Q. 8	<p>Will the outline map of India given in the map question of Social Science question paper, Class X, contain state boundaries or not?</p>

Ans.	Yes! The question paper will contain the political outline map of India requiring a student to either identify features and places given or to locate and label places asked for in the question.
Q. 9	I find History portion very tough to understand. Please reduce the content.
Ans.	Over the years, there has been a shift in Social Science from mere transmission of chronological, text-based information to conceptual understanding of socio political realities through learner participation in dialogues, discussion, debates, projects, observation, etc. The NCF 2005 clearly proposes that teaching and learning should go beyond the text book to encourage further reading and observation. There has been much reduction of content in History as the student is required to study only five themes out of 8 as per the guidelines specified in the Board's secondary syllabus, 2009.
Q. 10	Do we need to study Disaster management thoroughly or not since this Unit has been deleted from the theory paper?
Ans.	<p>Disaster Management is a topic which provides basic knowledge and skill essential for our safety and survival in the event of a disaster. Therefore, its study is important irrespective of whether it is included in external examination or not.</p> <p>In class X, no question on Unit 5, Disaster Management will be asked in the Social Science question paper in the Board Examination. But the textbook 'Together Towards a Safer India, Part III needs to be studied thoroughly for:</p> <ul style="list-style-type: none"> • Doing assignment questions on Disaster Management (out of 4 assignments, one assignment is compulsorily on Disaster Management). • Doing Project Work (out of the list provided in the Board's circular no.20/08 dated 14.05.2008).
Q. 11	Why have there been frequent changes in Social Science recently?
Ans.	The CBSE adopts/adapts the NCERT prescribed curriculum for classes 1 to 12. Sometimes changes are made in the syllabus to include topics more current, relevant and of crucial national concern like Disaster Management. Sometimes there are changes in the assessment pattern to make Social Science learning more meaningful and pleasurable based on project work.
Q. 12	I find Social Science syllabus very vast. It has five books and

<p>Ans.</p>	<p>extensive projects for each term. I spend most of my time reading from these books but hardly recall most of what I read after examination. How I can I make learning this subject interesting?</p> <p>The CBSE adapts/adopts the syllabus in different subjects prescribed by NCERT. In Social Science, the Board has prescribed five text books but as per the changed assessment scheme in Social Science, March 2009 examination, there will be no theoretical examination of unit 5, on Disaster Management. No questions on this unit and textbook will be asked in the theory paper of Social Science. Disaster Management will be tested only through projects and assignments. Please refer to circular no. 15 dated 11.05.2008 and circular no. 20 dated 14.05.2008 for greater details. As per the revised guidelines, the student is required to do only one project compulsorily on Disaster Management. They are not required to take up any other project work on any other topic. Please also refer to the revised sample question papers in Social Science that have been uploaded on the Board's website http://www.cbse.nic.in/curric-1/sqp-socsc-x-pap1-2009.pdf for detailed information on the revised marks distribution on different units of syllabus and other paper highlights.</p> <p>The NCF 2005 clearly proposes a teaching learning approach which goes beyond the textbooks and requires greater students' participation for enhanced conceptual learning. Hence rather than mugging up information, the student is required to grasp the concepts and apply them to real life situations.</p>
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Mathematics, X

Q.1 Where can I get the topics on Mathematics project of class X?

Ans. CBSE has recently published the revised edition of "Guidelines for Mathematics Laboratory in schools" for class X which contains the list of activities which are to be performed by the Class X students along with suggestive project work which may be taken up by the students. This publication is also available on the CBSE website www.cbse.nic.in.

b. Class - XII

Informatic Practices - XII

Q1. Where is the question paper of Informatic Practices for class XII of 2008?

Ans. The Sample Question Papers along with their Marking Schemes for Informatic Practices are available on the CBSE website www.cbse.nic.in

Economics, Class - XII

Q.1 The NCERT textbooks in Economics, class XII contain some topics not prescribed in the CBSE syllabus for 2009 examination. Should we follow NCERT books or the syllabus? Please guide.

Ans. Please refer to the Economics syllabus Class XII prescribed by the Board for 2009 examination and consult the relevant portions only from the latest NCERT textbooks in Economics. The Board has also brought out supplementary material in Economics for the portions of the syllabus not covered in the NCERT textbooks. Sample question papers have been posted on the Board's website <http://www.cbse.nic.in/curric~1/sqp-eco-xii-2009.pdf>.

The NCERT textbooks do include certain material for enrichment and extended learning which are not part of the prescribed syllabus and hence will not be examined by the Board

Q.2 Which is the best book in Economics Class XII for us to refer to for the Board examination 2009? Can we consult private publishers' books?

Ans. Every year the Board brings out curriculum in different subjects at secondary and senior school stage for a particular examination year. Teachers and students are advised to follow the concerned syllabus strictly for teaching and examination purpose.

Teachers should refer to those parts of the NCERT Textbooks in Economics Class XII which cover the Economics syllabus and the supplementary reading material provided by the Board on its website <http://www.cbse.nic.in/microeconomics%20class%20xii.pdf> and <http://www.cbse.nic.in/macroeconomic%20class%20xii.pdf> Since the Economics syllabus is almost the same for the last three years, it is advisable to also go through the question papers of last three years' examination (2006-2008) besides the Sample question papers in Economics Class XII for 2009 Examination on the Board's website.

The Board has stopped recommending private publishers books and recommends only NCERT textbooks.

Q.3 How can I get good marks in Economics?

Ans. Good marks in Economics can be scored if you prepare for the subject well keeping the Economics syllabus prescribed by the Board as the base. You

can also refer to the supplementary material in Introductory Microeconomics and Macroeconomics given on the Board's website <http://www.cbse.nic.in/microeconomics%20class%20xii.pdf> and <http://www.cbse.nic.in/macrofina1july14.pdf> in addition to NCERT textbooks. Evaluation in Board's examination is done as per marking scheme developed for the question paper.

Please understand the question well and answer accordingly in simple and precise manner. Refer to sample question papers given on the Board's website for greater clarity.

Q.4 What are HOT questions in Economics? Can you give some examples?

Ans. In the Board's question paper in Economics of Class XII, there will be higher order thinking questions of 15 to 20 marks. The objective is to assess the students' understanding, analytical ability and interpretation.

In the course content for Economics, an attempt is made to introduce basic concepts used in the study of this subject. Many of these concepts are also interrelated.

Memorizing these concepts and their relationship will not help in understanding the economic laws and principles. These have to be understood in totality by asking questions such as why and how and going a step further by applying them to various situations.

Some of these concepts are:

- Marginal and average cost etc and their relationship.
- Concept of equilibrium in microeconomics and in macroeconomics.
- Concepts of elasticity.
- Concepts of domestic product and national product.
- Intermediate and final products.
- Concepts of inflation, depreciation of domestic currency, etc.

Just memorizing the meaning of concepts does not help in understanding the subject and the use of these concepts. For instance just memorising the meaning of concepts and their relationship will not help you in answering question, like.

- Why must marginal cost curve pass through the minimum point of average cost curve? Or
- If marginal revenue falls, will total revenue fall? Or
- Are the wages and salaries received by Indians working in American Embassy in India a part of Domestic Product of India? Or
- Why must aggregate demand and aggregate supply be equal when the economy is in equilibrium?

To give a practice of the application of these concepts and to test whether the students have really understood them, the situations from day to day life should be put before them. They should then be asked to analyse them. Some topics can also be taken up for debate, such as “Are borrowings bad?” or “Is inflation harmful?” Some examples of higher order thinking questions in Economics for class XII are given below:-

1.	When price of a good rises from Rs.5 per unit to Rs.6 per unit, its demand falls from 20 units to 10 units. Compare expenditures on the good to determine whether demand is elastic or inelastic.	3								
2.	What is the relation between good X and good Y in each case, if with fall in the price of X demand for good Y (i) rises and (ii) falls? Give reason.	3								
3.	Giving reasons explain how the following are treated while estimating national income: (i) Payment of fees to a lawyer engaged by a firm. (ii) Rent free house to an employee by an employer. (iii) Purchases by foreign tourists.	2,2,2								
4.	Explain what happens to the profits in the long run if the firms are free to enter the industry.	3								
5.	Given market equilibrium of a good, what are the effects of simultaneous increase in both demand and supply of that good on its equilibrium price and quantity?	6								
6.	Explain the implications of the following : (i) The feature ‘differentiated products’ under monopolistic competition. (ii) The feature ‘Large number of sellers’ under perfect competition.									
7.	At a given market price of a good a consumer buys 120 units. When price falls by 50 percent he buys 150 units. Calculate price elasticity of demand.									
8.	Explain, by giving examples, how do the following determine price elasticity of demand: (i) nature of the good (ii) availability of substitutes									
9.	In the following table, identify the different phases of the law of variable proportions and also explain the causes: <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;">Variable</td> <td style="width: 15%;">input</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 10%;">5</td> <td style="width: 10%;">6</td> </tr> </tbody> </table>	Variable	input	1	2	3	4	5	6	
Variable	input	1	2	3	4	5	6			

	(units)							
	Total product (units)	10	22	32	40	40	35	
10.	Giving reasons, explain how the following are treated in estimating National Income: (i) Purchase of a truck to carry goods by a production unit. (ii) Payment of income tax by a production unit. (iii) Services rendered by family members to each other.							6

Q.5 Please guide me regarding deletions made from the Economics syllabus. Please also advise me on the answering pattern, use of graphs and word limit.

Ans. Vide Circular No. 15 dated 12.03.2007 the following sub-topics have been deleted from the Economics syllabus for the Board Examination, 2009:

In Unit 8: Recent significant reforms and issues in the Indian Banking system- Privatization and modernization.

In Unit 9: Downsizing the role of government: meaning and implication.

In Unit 10, A brief analysis about recent exchange rate issues.

These deletions are also reflected in the Economics syllabus, class XII, 2009 examination.

Details of the circular are available on the CBSE website <http://www.cbse.nic.in/circulars/cir1507.doc>. For answering pattern and other related issues, please refer to the revised sample question papers in Economics; class XII available on the Board's website <http://www.cbse.nic.in/curric~1/sqp-eco-xii-2009.pdf>.

Q.6 What type of papers will come for class XII students?

Ans. Please refer to the design of the question paper and sample question papers in Economics which are given on the Board's website <http://www.cbse.nic.in/curric~1/sqp-eco-xii-2009.pdf> under Students section. The website also contains question papers of 2008 for guidance of students.

Q.7 The new textbooks in Economics contain too much of Mathematics. Can there be a question on mathematical derivation of a concept or a behavior in the Board Examination?

Ans. Economic concepts and behaviour can be explained diagrammatically, mathematically and through explanations. All the three ways are complementary to each other. The Mathematics required in class XII Economics is not higher than that studied in class X.

However, for 2009 examination, the Economics syllabus does not require a student to give mathematical derivations in his/her answer. They can give explanation supported by diagrams to explain particular economic behavior/concepts.

BIOLOGY

Q. 1. Why should a student pursue biology at the Senior Secondary School level? What are the prospects?

Ans. Biology has wide applications in microbiology, genetics, agriculture, forestry, forensic sciences, biotechnology and environmental studies. After passing out with physics, chemistry and biology, a student can compete for admission to a medical college for MBBS, BDS, Veterinary Science, Homeopathy, Nursing, Physiotherapy or pursue a course of B.Sc (Hons) in Botany or Zoology, Home Science or in specialized courses such as B.Sc in Genetics, Microbiology, Environmental Science, Biochemistry, Biotechnology, and Biomedical Studies and B. Pharma. B.Sc course in Life Science / Biological Science focuses on the more modern aspect of biology in an integrated manner.

Q. 2. What should be the long term goal of the biology student?

Ans. Following graduation, the students have the option of choosing higher (P.G.) studies in agriculture (e.g. in plant breeding or pathology), molecular biology, biotechnology, biomedical sciences or life sciences. M.Sc. in Botany or Zoology, followed by B.Ed., is popular, specially among girls, for becoming teachers in schools. The more ambitious can pursue a Ph.D. course and opt for teaching at College / University level, or join a research institute as a scientist. Biology students with an appropriate aptitude also compete for Indian Forest Service and other central services. There are openings for biologists in biotechnology and environmental management organizations.

Q. 3. Why the students are not interested in taking Biology courses?

Ans. Market forces, to a significant, extent, determine the choice of subjects by a student. Engineering subjects (Physics, Chemistry and Mathematics) and Commerce/ Economics followed M.B.A are seen as leading to high paying professional jobs after 4-6 years of study. The craze for medical (MBBS) course has dwindled because it is perceived as requiring 8-10 years of hard work and struggle without assurance of good placement. Similarly, B.Sc. and M.Sc. courses in biology and allied subjects are perceived by the students (and their parents) as requiring long years of hard work with no assurance of a well-paying placement.

Q.4.Would there be better prospects for biology students in future?

Ans. Yes. It is believed that if the 20th century had belonged to electronics, the 21st would belong to biotechnology. In future it is expected that a large skilled workforce will be required in upcoming areas of molecular biology genomics, agricultural and industrial biotechnology, and biomedical sciences. The students who choose careers in these areas would need to be not only strong in theoretical aspects, but would need to have practical expertise and skill to be useful in the corporate sector. The government is creating necessary infrastructures for training of manpower in modern areas of biology to meet the future needs.

There is a cyclical pattern in popularity of different disciplines at the school level. Herd mentality can lead to saturation in some areas over a period of time. Subjects perceived as less attractive at one time, can become popular after some years as the demand grows.

Q. 5. What kind of a student should choose Biology as a career?

Ans. Modern biology requires not only aptitude and proficiency in biology, but also in chemistry, physics and computers. Good communication skills and love for nature can help in building career in media and environmental management. Both descriptive and analytical abilities are fundamental to building a good biologist. Modern biologist relies heavily on sophisticated equipments and computers. Proficiency in handling instrumentation and procedures and ability to analyze and interpret in a logical manner are an asset for a biologist.

Q. 6. Is biology an “exclusive” subject or does it require interaction with other disciplines?

Ans. Modern biology interacts and overlaps with chemistry, physics, mathematics and even economics, geography, sociology, psychology and other subjects. Those who have chosen biology as a subject of learning can later select specialized areas of higher studies and career on the basis of their aptitude and precise expertise. For example, students good in chemistry can work in biotechnology, molecular biology, biochemistry and pharmacognostics, and those having special proficiency in computers can choose bioinformatics. Those good at Physics can choose Bio-physics or Bio Instrumentations. A sociological and geophysical bent of mind can be helpful to a biologist in environmental management.

Biotechnology

Q. 1. What is biotechnology?

Ans: The biotechnology is truly an integrated subject which utilizes the knowledge from several disciplines, including Biochemistry, Genetics, Molecular Biology, Recombinant DNA Technology, Maths, Physics, Chemistry and Engineering etc. The modern biotechnology is one of the world's newest and most important applied science of the 21st century. It deals with the use of organisms, which may be genetically modified (GM) e.g bacteria and yeast or cell and tissue cultures or their products (e.g. enzymes) to perform specific industrial or manufacturing process. Biotechnology can help in diagnosing and treating diseases in humans as well as improvement of microbial strains and generating of novel crops with new traits.

Q. 2. What is the scope of biotechnology in India?

Ans: Biotechnology is a relatively new branch of science and has excellent scope in all countries. The scope of biotechnology in India is also enormous. This field involves engineers, biochemists, biologists and many other such professionals. In fact, Asia is set to become a hotbed for biotechnology related research and development. In India, biotechnology has grown in areas like Recombinant DNA technology, Bioinformatics, Agricultural Biotechnology, Bio-fertilizers, Marine Biotechnology, Nano-biotechnology and the like.

Q. 3. How to pursue biotechnology courses?

Ans: The students can study biotechnology in various manners. You can opt for biotechnology course at 10+2 standard, and then go for under-graduate course in biotechnology, which include B.Sc/B.E/B.Tech or 5 year integrated B.Tech/M.Tech and post-graduate courses, which include M.Sc/M.Tech. After completion of post-graduation, you can go for Ph.D after which you can have post-doctoral research training in India or abroad.

Q. 4. What are the job opportunities available for biotechnology personnel?

Ans: There are excellent job opportunities available for budding biotechnologists. Biotechnology industry is now involved in innovative research and development, and it is rapidly growing worldwide. Though, the Indian biotech industry is still at a nascent stage of indigenous research and process development, its scientific facilities have been built, which are really at par with international ones. Students having an innovative thinking can enter this arena. Besides research, there are openings at various levels like in marketing and sales, quality control, regulatory sector, technology transfer, clinical trials and IPR and law etc.

Q. 5. What are some of the important products of modern biotechnology?

Ans: The modern biotechnology has the potential to give a wide variety of important products to prevent diseases, diagnose and treat illness, and help us improve our health. Biotech products are used in different areas like pharmacology, medicine, agriculture, bioremediation, food processing, forensics and energy production. Some of the biotech-based health products include the biological drugs such as vaccines, antibodies, antibiotics, recombinant proteins (e.g. hormones, enzymes, growth factors, blood products, etc), diagnostic tests and kits, cell therapy products and gene therapy. Some of the diseases currently treated or diagnosed with biotech-based health products are diabetes, haemophilia, cancer, etc. In addition to these, several improved crops in terms of disease and insect resistance, improved nutritional quality and content, and crops that can produce edible vaccines, antibodies and pharmaceutically important compounds have been developed through genetic manipulation techniques. Some of these GM crops like insect resistant Bt cotton, Bt corn, herbicide tolerant soybean and cotton have been commercialized in 23 countries. These are only few examples of important applications of biotechnology, and there could be many more exciting applications of this field in the near future.

Q. 6. What are some of the concerns about biotechnology regarding human health and environment?

Ans: Biotechnology is a tool and like any other technology, if used properly and with care, it can be safe and beneficial for human kind. The regulatory system ensures that biotech products that is commercially released are safe to human health as well as for environment. Regulatory bodies both at Institutional as well as national level have strict control over the practice of Biotechnology at public and private laboratories.

II. VOCATIONAL

FMM

Que. 1. What is the future of FMM course and its vertical mobility?

Ans. The students with FMM course will have huge employment potential in Financial Market. They will have lot of employment opportunities in Trading, Marketing, Back office, IT, important positions in Finance and audit companies and BPO sector as process associate and customer care executives etc. The students desiring to pursue higher studies can join regular courses like B. Com and equivalent degrees. The CBSE has written letters to UGC and other reputed Universities to recognize this course for admission.

Que. 2 What are the key opportunities in a BPO industries?

- Ans.**
1. Customer - service representatives
 2. Technical support
 3. Hardware support
 4. Software support
 5. Network support
 6. Business Analyst
 7. Medical Transcription
 8. Technical Writing / Instructional Designing
 9. Language Specialists

Que. 3 What are Key skill required for BPOs?

- Ans.**
- 1 The voice
 - 2 Fluency
 - 3 Neutral accent
 - 4 The thought process,
 - 5 Good interpersonal skill
 - 6 Comfort around information technology
 - 7 Typing skills
 - 8 Domain Knowledge
 - 9 Attention to detail
 - 10 Quantative ability
 - 11 Writing skills.

Que. 4 What are challenges & Threats facing the BPO industry?

- Ans.**
- 1 Shortage of skilled workers
 - 2 Demand growth may slow down
 - 3 Competition

- 4 Language & accent
- 5 Cost-cutting & attrition
- 6 Cultural differences.

Que. 5 What is future potential in the BPO industry?

- Ans.**
- 1 Talent pool,
 - 2 Good infrastructure
 - 3 Operational excellence in terms of quality & leadership
 - 4 Conducive business environment including policy interventions like telecom reforms
 - 5 Declaration of IT & ITES as essential services to keep them out of political turbulence
 - 6 Continued growth in the domestic IT sector.

Que. 6 What is importance of BPO industry in business strategy of organisation world wide?

Ans. Business Process Outsourcing is an important component of Business Strategy of major organizations worldwide. BPO is positively related to the quest for more efficient organizational designs: cost reduction, productivity growth and innovative capabilities. Hence, BPO is important source for strategic advantage. Many recent market research surveys have indicated the CEO's around the world across all the companies feel that BPO is key strategy for survival in today extremely competitive business environment. BPO offers many benefits. It allows the organization to concentrate on their core activities by releasing resources which have constrained in non-core activities. It helps organization cut costs by reducing HR Costs - salary bills, perks, employee benefits, administration overheads. The client only has to pay for useful quality work duly completed by BPO. It helps to reduce recruitment and training expenses. It helps Improve quality of service and productivity by bringing greater accountability and transparency in production standards. It enables an organization to get increasing volume of paperwork and routine administration work done quicker and at significantly lesser cost. BPO also offer 24 X 7 X 365 service availability which is very important in customer service related operations.

III. EXAMINATION

Disability related Relaxations during Board Exams

Q.1 What are the types of disabilities for which Board grants concessions?

Ans. Blind, Physically Handicapped, Dyslexics, Autistic and Spastic Candidates

Q.2 Authority from whom the medical certificate has to be obtained?

Ans. From a medical officer not below the rank of an Assistant Surgeon of a Government Hospital.

Q.3 Whether the request for obtaining concessions has to be submitted through the school or directly?

Ans. The request alongwith the medical documents and concessions required has to be sent through the Head of the Institution in which the student is studying, duly recommended by the Head of the institution.

Q.4 What are the concessions given by the Board for the examinations?

Ans. The following concessions are provided by the Board for the examinations:

1. exemption from studying third language up to middle school level (i.e. Class VIII);
2. permission to use an amanuensis;
3. the amanuensis should be a student of class lower than the one for which the candidate will be taking the examination;
4. the candidate pays the fee as prescribed for use of the amanuensis to the Board. However, the Blind, Physically Handicapped or Spastic Candidates are being provided services of an amanuensis free of cost;
5. the amanuensis is paid remuneration as prescribed from time to time by the Board;
6. the candidate is permitted to use the services of an amanuensis in all or any of the papers. Services of same amanuensis is taken for all the papers.
7. the candidates are being permitted to draw the diagrams etc. themselves, if desired by them.
8. Additional time as under is given in each paper:
For paper of 3 hours duration 60 minutes

For paper of 2 ½ hours duration 50 minutes

For paper of 2 hours duration 40 minutes

For paper of 1 ½ hours duration 30 minutes

9. Alternative type questions are provided in lieu of questions having visual inputs for the blind candidates in English Communicative and Social Science for Class X and History, Geography and Economics for Class XII;
10. Separate question papers in enlarged print for Mathematics and Science & Technology in Class X are provided;
11. Blind candidates from Delhi have the facility to use computer or a typewriter for writing answers;
12. Blind candidates have been permitted to offer subjects like Music, Home Science etc. which are not available in the school and to study these subjects privately as subjects of extended learning.

FREQUENTLY ASKED QUESTIONS ON EXAMS

Q. 1 How do I deal with exam related stress?

Ans. Recognize your negative thoughts. Once you closely examine these thoughts you'll see how unrealistic they are. Challenge the thoughts that say you are a failure and that you can't succeed. Remind yourself that it was just another exam and with effort, you will do better in your next attempt.

Q.2 What if I do badly?

Ans. Replace self-criticism with self-correction. Judging yourself harshly now won't help you do better in the future. Take the position of an observer. What if a good friend told you he had failed? Would you call him a failure? Most probably you would emphasize his good points and help him put the situation in perspective.

Q.3 How do I deal with my family's disappointment if my results are not good?

Ans. Be open and honest with them. Share what you feel about the result and what you think went wrong. Reassure them of your concern and efforts. Above all, do not have a negative bias against your parents because sometimes they need more reassuring than you do.

Q.4 What if I don't get the marks I'm expecting?

Ans. Concentrate on your achievements and be realistic about your expectations as well. Usually we know when we have made a mistake, so take

these into account while drawing up expected marks. If you are still dissatisfied with the results, the option of rechecking is always open.

Q.5 *We have heard of irregularities in the assessment system. What if my marks are adversely affected?*

Ans. Have faith in the system. There will always be rumours about unfair checking, but one cannot ignore the fact that results over all these years have majorly been fair.

Q.6 *I think there is too much pressure and I can't cope with it.*

Ans. Take professional help. If you feel that there is pressure and you are unable to handle it and your self-esteem is coming down and you are unable to cope, then you must consult a psychiatrist to help you tide over this phase.

Q.7 *Everyone tells me to concentrate on my studies.*

Ans. Don't stop enjoying life. One of the common mistakes an individual makes is to totally change his lifestyle. This is under the assumption that if he isolates himself from all leisure and fun times with friends and family and only study, then he will do better.

Q.8 *How much sleep is required?*

Ans. The human body requires an average of 8 hours of sleep per day. But there is no hard and fast rule. Each one of us has to understand our body rhythm and know by trial and error how many hours of sleep keeps us fit.

Q.9 *What happens if we sleep less than what our body requires?*

Ans. If you sleep less for a day or two your body can cope by if you sleep more over next two days. If continued for long then the body gets into what is known as **sleep deprivation syndrome** because it accumulates so many hours of **Sleep Debt**. Then you get symptoms of feeling tired and sleepy, headaches, body aches, poor digestion, inability to concentrate, irritability, short temperedness etc

Q.10 *Should I study in the morning or at night?*

Ans. First understand whether you are an **owl or a lark**. IF you can get up early in the morning and feel fresh then you must sleep early and get up early and study. If on the other hand you can study late at night but cannot feel fresh when you get up early to study then you must sleep late after studying and get up later in the morning.

Q.11 *How do you get a good night sleep?*

Ans. Try to keep a fixed time every night for sleeping as far as possible. Avoid afternoon prolonged sleeping, a short nap may be helpful. One hour before bed-time avoid stimulating your sensory system with too much noise like loud music, too much TV, arguments or fights. Three hours before sleep time avoid taking any food or liquids, which contain caffeine, aerated cool drinks or drinks containing chocolate.

Q.12 *To keep awake for studying students drink lots of coffee. What is the harm?*

Ans. Caffeine in small doses acts as a stimulant and keeps you awake, so a cup once a day may be Ok. Excessive coffee drinking gives side effects like tremors, fast pulse rate, irritability, acidity and stomach pain. Coffee also causes addiction.

Q.13 *Why exercise during exam time?*

Ans. Most children will say they have no time for exercise during exam days. They are already stressed out with lack of time, how can they waste time in exercise? The fact is that exercise is all the more necessary during exam time because not only is it a “stress buster “ but also has many other health benefits needed to keep fit during exam.

Q.14 *What does exercise do?*

Ans. God has given us our body which is a perfect machine!. But as with any machine to keep in good running condition, it requires maintenance or it will develop problems in various parts or rust due to disuse. Similarly if all our body parts are not moved effectively, as in exercise, the body parts will fail and then you will get physical problems like lack of stamina, excessive sleep, headache, muscle pains, fatigue etc. You will also get mental problems like feeling low or depressed, inability to concentrate, poor memory etc

Q.15 *What are the various forms of exercise?*

Ans. Aerobic exercise, running, jogging, swimming, specific aerobic exercises, strength training, lifting weights and working on machines are some examples. Resistance or strength training increases lean body-mass which includes muscles, these in turn burn more energy daily as compared to fat mass. More muscles mean more strength and also more calories burnt, so less fat on body. Strength training helps to tone muscles and improves endurance. It reduces risk of osteoporosis so makes our bones very strong. Exercise increases co-ordination and reduces risk of injuries resulting from weak muscles.

Q.16 *How does exercise help?*

Ans. Regular aerobic exercise (swimming, bicycling jogging) improves the function of our cardiovascular system. This makes the circulation better, the lungs process oxygen more effectively so you have less exertion. Heart pumps blood with fewer heart beats (the athletes pulse is always slow). It stimulates the growth of capillaries that increases blood supply hence better oxygenation to muscles. All this makes your body more efficient and gives you more endurance capacity giving you more stamina for working. You can sit longer hours without discomfort. This will make you study harder and better.

Q.17 *How does exercise help you be better mentally?*

Ans. Regular aerobic exercise releases some good chemicals in our body. These are called endorphins. These make you feel happy. They counter the effects of stress, depression and anxiety that all students suffer from during exam time. So after exercising you get a “**Natural kick**” which is longer lasting and safe unlike drugs or stimulants like caffeine. It also helps you in weight loss and that will make you feel good about your self.

Q.18 *What are long-term benefits of exercise?*

Ans. Regular exercise will not only help you during exam but later in life you will have longer life and less risk of obesity, high blood pressure, heart attacks, diabetes, cancer and mental depression.

Q.19 *Why do adolescents feel hungry all the time?*

Ans. The body demands more calories during adolescence. Boys require about 2800 calories and girls about 2200 per day. Teens who are big and tall and participate in lot of physical activities require more calories.

- **DO NOT MISS BREAKFAST:** If you miss breakfast then by the time you have lunch nearly 10 -12 hours have gone by after your last meal. This means your blood sugar level has gone and you have nothing to provide your body with energy. This low blood sugar or hypoglycemia causes short-term memory problems, difficulty in concentration problem solving.
- **DO NOT HAVE A VERY HEAVY DINNER:** You will feel very heavy and sleepy and will not be able to study well.

Q.20 **If a student fails in the pre Board examination conducted by the school, can he/she be detained from appearing in Class X or XII Board's exam?**

Ans. No, certainly not, if he/she is otherwise eligible.

Q.21 Is it possible for a student who has failed in Science stream in Class XII to change subjects to pass at subsequent examinations?

Ans. Yes, but with prior permission of the Board.

Q.22 What is the eligibility criteria for a student to appear as a private candidate in Board examination?

Ans. The Board prescribes following conditions under which a candidate can appear privately: -

- I. Failed candidates
- II. Teachers serving in educational institutions
- III. Regular candidates of the previous year who have completed regular course of studies and have been allotted Roll No. but could not appear due to medical reasons except shortage of attendance as laid down in the Examination Bye-laws.
- IV. Women candidates who are bonafide residents of NCT of Delhi (only from Delhi).
- V. Physically handicapped students (only from Delhi).

Q.23 What is the procedure of appearing in additional subject?

Ans. An additional subject may be offered within 6 years of passing the examination of the Board provided the additional subject is prescribed in the Scheme of Studies. No exemption from time limit is given after six years. This facility is available at the annual examination only.

However, candidates appearing in six subjects at the Senior School Certificate (Class XII) Examination and being declared pass by virtue of replacement of subject may appear in the failing subject at the Compartment Examination to be held in July/August the same year.

Q24 Is it compulsory for a student to repeat the practical examination also if he/she fails in theory?

Ans. The candidate shall appear only in theory part and his/her previous practical marks will be carried forward and accounted for if he/she has passed in practical.

Q.25 What are the exemptions provided in examinations to physically challenged and dyslexic candidates?

Ans. Dyslexic/spastic/physically handicapped students have the option of studying one compulsory language as against two and any four subjects from the following:

I. Mathematics, Science, Social Science, 2nd language, Music, Painting, Home Science and Introductory Information Technology, Commerce (Elements of Business) and Commerce (Element of Book Keeping and Accountancy)

i. Additional time as given below for each paper is provided to the students

(a) For paper of 03 hours	60 minutes
(b) For paper of 2 ½ hours	50 minutes
(c) For paper of 02 hours	40 minutes
(d) For paper of 1 ½ hours	30 minutes

ii. Physiotherapy exercises are considered *equivalent to Physical and Health Education*

iii. Amanuensis is provided free of cost to such students.

iv. Exemption from examination in 3rd language upto Class VIII.

Q.26 I wish to improve my performance in Chemistry and Maths. Is it possible and how?

Ans. A candidate who has passed Class X or XII examination of the Board may re-appear for improvement of performance in one or more subjects in the main examination in the succeeding year only. The candidate may appear privately; those re-appearing for the entire examination can also appear as regular candidate if admitted by the school.

- For subjects involving practical work, if the candidate has passed the practical examination, he or she will be allowed to appear only in theory part.

Q.27 Does the Board provide any supplementary material for students preparing for X & XII examinations?

Ans. Yes, the Board publishes Sample Question Papers and Marking Schemes in main subjects in Class X & XII which can be purchased from any of the Board's offices or downloaded from the Board's website www.cbse.nic.in

Q.28 Are the questions of Sec. Exam. strictly based on NCERT books?

Ans. NCERT books are prescribed for studies as they cover the prescribed syllabus. It is, therefore, advisable to concentrate on these books.

Q.29 Are the questions of Sr. Sec. Exam. strictly based on NCERT books?

Ans. NCERT books are recommended for studies as they cover the prescribed syllabus. At Sr. Sec. level there is no harm in consulting other books also.

Q.30 Is it compulsory to pass in theory and practical exams. separately?

Ans. Yes, it is compulsory to pass separately in the subjects involving theory and practical in Class XII.

Q31 Is a student required to appear in all subjects in improvement examination?

Ans. No, the student can appear in one or more than one subject as per his/her choice at the annual examination only. Improvement exam. can be taken only in the successive year of passing Class X/XII exams. However, candidates passing under Vocational Scheme may reappear in the succeeding year or the following year provided they have not pursued higher studies.

Candidates can appear for improvement of performance in the subjects(s) only in which they have been declared pass and not in the subject in which they have been declared fail.

Q.32 What are the kinds of questions asked in Physics, Chemistry and Biology and how should one attempt the questions?

Ans. The Board publishes Sample Question Papers in all the main subjects every year along with Marking Schemes. It is better to procure a copy of each publication. Board's website www.cbse.nic.in can also be visited. Generally the questions asked are based on the Sample Question Papers.

Q.33 Is there negative marking for exceeding word limit?

Ans. No, the marks are not cut for exceeding the word limit. However, it is better to restrict to the specified word limit. This should be practiced at the time of revision, which will also help in completing the paper within the allotted time.

Q.34 How many sets of question papers are distributed in examination hall in Board's examination?

Ans. The Board prepares three sets of questions papers in all the main subjects having equal difficulty level.

Q.35 Is it possible to score 80% in Maths in Class X after studying from the NCERT books, latest CBSE Sample Question papers and other Sample Papers?

Ans. Marks would entirely depend upon the preparation and performance during examination. It is, therefore, advisable to remain focused and do your best.

Q.36 Will a student lose marks if he/she opts for Hindi as a medium for writing +2 examination?

Ans. Certainly not. The Board gives option of medium to the students to answer questions in Hindi or English. The marks are deducted only in case of wrong answers.

Q.37 What are the changes in the pattern of Examination in Class XII this year?

Ans. The changes in question paper design and weightages are mentioned in Sample Question Papers in each stream. A copy of Marking Scheme can also be bought from the Headquarter / Regional Office or downloaded from Board's website.

Q.38 If a student decides to drop one year, what will be the syllabus applicable for the next examination, the old or the new?

Ans. The candidate will have to study the syllabus recommended for the year in which he/she plans to give the examination.

Q.39 What are the rules for condonation of attendance?

Ans.

I. A candidate must have atleast 75% attendance in the classes held : counted from the day of commencing teaching of classes X/XII as the case may be upto the 1st of the month preceding the month in which the examination of the Board commences. Shortage up to 15% may be condoned by the Chairman. Cases of candidates with attendance below 60% in class X/XII, as the case may be, shall be considered for condonation of shortage of attendance by the Chairman only in exceptional circumstances created on medical grounds such as serious diseases like cancer, AIDS, T.B. or similar serious diseases requiring long period of hospitalization.

For students participating in Sports at National level organized by recognized Federations/CBSE/SGFI the attendance required will be atleast 60%.

II. Death of a parent

III. Authorized participation in sponsored tournaments and Sports meet of at least inter school level and NCC/NSS camps.

IV. Authorized participation in Sports at National level organized by recognized Federations/CBSE/SGFI.

Q.40 Are marks deducted for missing steps in Maths?

Ans. Yes, marks are deducted for missing steps. It will be better to get a copy of the Marking Scheme to know about the weightage and steps and practice accordingly.

Q.41 Is the candidate allowed to see the answer script in case the result is not as per the expectations?

Ans. No. There is no provision of showing answer scripts. The candidate can apply for scrutiny, for reconfirmation of marks.

Q.42 If a candidate passes in the additional subject but fails in one of the main subjects, what will the result show?

Ans. The candidate will be considered as having passed the examination in such a case. A language will replace a language only. For further details the scheme of examinations and bye-laws can be referred to.

Q.43 Is it compulsory to use ink pen for writing answers in Board exams?

Ans. Always use blue or royal blue ink pen while writing the answers. Also try to write in neat and legible handwriting.

Q.44 How can one get good marks in Maths in Secondary class? Are there any guess papers/Bank of important questions published by the Board?

Ans. The preparation in Maths essentially depends upon written practice and revising the entire syllabus. Try to solve each and every problem given in the exercises in NCERT textbook. The Board does not publish any guess papers/Bank of important questions. It will be better to practice from the Sample Question Papers.

Q.45 Will the question paper of Maths be different than the two blue prints given in the Sample Question Paper for Class X?

Ans. Based on the same design any number of the question papers can be prepared. The Board may generate another blue print in addition to two blue prints included in the document.

Q.46 Will the examiner cut marks if the answers are not written in serial order?

Ans. No marks are cut. However, it is advised that the answers should be written in correct serial order as far as possible.

Q. 47 What is the procedure followed in marking the answers?

Ans. Each answer is divided into steps and marks are given in accordance to the weightage assigned for these steps. It is advised that a copy of Marking Scheme be procured to get a clear idea.

Q. 48 In Class X Board exam. can the answers to the questions written in random order?

Ans. Answers to the questions can be written in random order as long answers are numbered correctly. However since the answer scripts of Science will be evaluated by two examiners, answer should be written section-wise. Within the section any order may follow.

Q.49 Does poor handwriting affect performance in the Board exams? What is the correct speed rate to follow?

Ans. Answers should be written in a hand which can be read easily by the examiner. Being neat and legible is important. There is no speed rate prescribed. It is better to divide time and plan answers while reading the question paper in the beginning.

Q.50 If one gets good marks in the pre-boards what does it indicate? Will the marks in the Board also be good as well?

Ans. Getting good marks in the Pre-boards clearly indicates that one has prepared well. Being consistent in preparations will definitely fetch good marks in board exams as well.

Q.51 Is it true that longer answers in Hindi fetch better marks, as opposed to English?

Ans. The marks are not related to the length of the answers but to the relevant value points which must be covered both in Hindi as well as in English and even in other subjects.

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