MASOOM'S
EDUCATION COMPLEX

# IQRA RESIDENTIAL QUETTA

# PROSPECTUS

Pre-Cambridge I, Pre-Cambridge II
Leading to O'Levels

# ABOUT THE INSTITUTION

Iqra Residential School and College in Quetta, Pakistan, is an educational institution that offers a comprehensive educational program for students at both the school and college levels. Here's a more detailed overview of the institution:

1. **Location:** Iqra Residential School and College is situated in the city of Quetta, which is the capital of Balochistan province in Pakistan. It serves the local population as well as students from other parts of the country.
2. **Educational Levels:** Iqra Residential School and College provides education at two levels:
    - **School Level:** It offers schooling for students from primary to secondary levels. The school curriculum follows the national educational standards of Pakistan, focusing on subjects such as Mathematics, Science, English, Urdu, and Social Studies.
    - **College Level:** The institution also runs a college program, providing intermediate and higher secondary education. This includes courses for students studying in grades 11 and 12. The college offers science and arts streams, allowing students to specialize in their chosen fields.
3. **Academic Excellence:** Iqra Residential School and College is dedicated to maintaining high academic standards. The school and college strive to provide a well-rounded education that not only covers the academic curriculum but also emphasizes character development, moral values, and extracurricular activities.
4. **Facilities:** The institution provides a range of facilities to support the educational and extracurricular needs of its students. These facilities may include classrooms, science laboratories, libraries, computer labs, sports fields, and recreational areas.
5. **Qualified Faculty:** To ensure a quality education, Iqra Residential School and College employs a team of qualified and experienced teachers who are dedicated to helping students achieve their academic goals.
6. **Extracurricular Activities:** Beyond academics, the school and college encourage students to participate in extracurricular activities such as sports, debates, arts, and cultural events. These activities help students develop a well-rounded personality and enhance their interpersonal and leadership skills.
7. **Ethos:** The institution often places a strong emphasis on values, ethics, and discipline. It aims to foster a nurturing and respectful environment where students can grow not only academically but also morally and socially.
8. **Admission:** Admission to Iqra Residential School and College is typically granted through a competitive process, and the institution may have specific criteria for entry into its different levels and programs.

# ABOUT THE O'LEVELS PROGRAM

Our setup comprises of **5 years** starting from class 6th to 10th. The first two years (6th and 7th) will be our **Pre-Cambridge-I** and **Pre-Cambridge-II** respectively. The actual O'Levels for the students will start in their 3rd year (8th class) and will be carried out till their class 10th. The next three classes after **Pre-Cambridge** will be **O'Level-I, O'Level-II** and **O'Level-III.** The setup has been divided into a 5 years course so that the subjects taught at the Cambridge classes (O-I, O-II and O-III) are strongly founded in their basic Pre-Cambridge classes in the first two years.
For these 5 years in addition to monthly tests, there will be mid-term and year-end term exams to be communicated to parents. There will be minimum 2 (PTMs); Parents-Teacher Meetings in a calendar year.

There will be separate classes for both girls and boys in their respective campuses.

## FEE STRUCTURE:

| Classes | Monthly Fee |
|---|---|
| Pre-Cambridge I | 6000/- |
| Pre-Cambridge II | 6000/- |
| O'Level I | 8000/- |
| O'Level II | 9000/- |
| O'Level III | 10000/ - |

## WHY DO WE USE LABORATORY EQUIPPED CLASSES?

Since in O'Levels system of education, rote learning is discouraged, rather totally unacceptable. Therefore, practical exposure of the knowledge is very much important. The purpose of laboratory equipped classrooms is to introduce the laboratory; the apparatus, the models and the instruments used in a science laboratory. Our students will be taken through this journey throughout the year in their particular class so that they are able to practically observe what they study in the books or learn from their teachers. This will inculcate in these students the sense of creative thinking and drawing conclusion from observation as it is done by the scientists.

## O' LEVELS EXAMS SCHEDULE

The Cambridge exams take place twice a year.

**SUMMER:**
This is conducted in the months of May/June and the result is announced on 18th of August every year.

**WINTER:**
This is conducted in the months of October/November and the result is announced on 18th of January (the next year).

**THE BENEFIT OF OUR O'LEVELS:**
The edge of our O'Levels setup over the other institutions is that ourMatric and O'Levels students will be reaching the finishing line on year 5 at the same time, therefore no extra time is wasted if the student opts for O'Levels.

## SUBJECTS

**The O'Levels studies comprises of the following subjects**:

### THE MINOR SUBJECTS: 3

- Urdu
- Islamiat
- Pakistan Studies (History/Geography)

Students of class 9th will appear for the first time at Cambridge exam for these subjects**.**

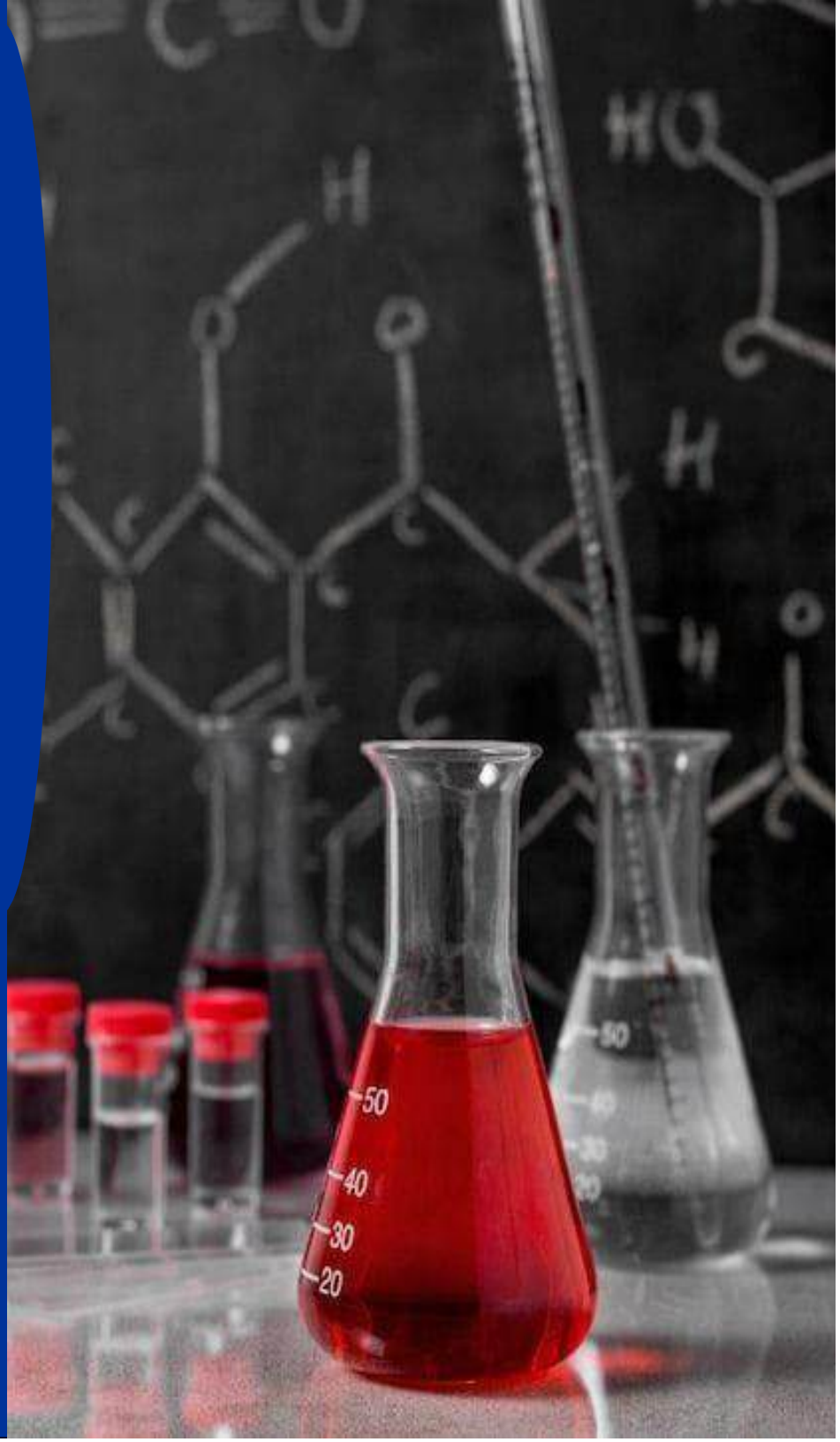
### THE MAJOR SUBJECTS: 5

- English
- Mathematics
- Physics
- Chemistry
- Biology

Students of class 10th will appear for the above mentioned major subjects of Cambridge exam.

**Registration Fees for the Cambridge Exams for the Year 2022:**
(Minor and Major papers included)

| Papers | Fee (Paid to the Cambrid |
|---|---|
| Urdu | 20,340-/ |
| Islamiat | 20,340-/ |
| Pakistan Studies (History/Geogr | 20,340-/ |
| Mathematics | 22,390-/ |
| English | 22,390-/ |
| Chemistry | 22,390-/ |
| Physics | 22,390-/ |
| Biology | 22,390-/ |



# WHY PREFER O' LEVELS OVER MATRIC?

The studies have shown a rapid growth of “O” level education in Pakistan is due to better learning, fair examination system, advanced and better curriculum, easy admission in foreign universities, provision of quality education, better learning environment, knowledge based education system, status symbol for family, flexible scheme of studies, up-to-date, comprehensive and informative courses, international acceptance and recognition, better professional careers and dynamic future for students

In Pakistan, the scope of O Level education is undeniably broad and promising. With its global recognition, emphasis on English, and holistic development, it opens doors to a multitude of opportunities. However, it's essential to weigh the benefits against the cost and the adjustment period your child might face.

O Level graduates have a wide range of study options available to them, allowing them to customize their education to their interests and future ambitions, encouraging experimentation and specialization. Their English competence, which is frequently gained through O Level English, improves their capacity to succeed in English-speaking academic contexts. Studying abroad provides a worldwide perspective, engagement with other cultures, and expanded job chances, which appeals to businesses looking for graduates who are globally aware. Studying abroad fosters personal development, independence, and vital life skills.

Countries with high-quality education systems, diversified societies, and plentiful career possibilities are among the most desirable for O Level graduates. O Level qualifications are internationally recognized, allowing students to pursue education and professional opportunities all across the world.

The study in o level is conceptual unlike Matric where read and learn without thorough understanding is common. This makes a better base and study perspective for future studies.SAT exam feels a lot easier to give. This is an American test required for American colleges and universities. In Pakistan, if you want to apply for LUMS, then SAT is a necessity. For that, again, O levels build a better base and the way you study for it.

O'Levels and matriculation are two different educational systems or qualifications that exist in various countries. Each has its own set of advantages and disadvantages, and the choice between them depends on individual preferences, academic goals, and the educational system of the specific country. Here are some advantages of O'Levels over matriculation:

1. **International Recognition:** O'Levels, often known as the General Certificate of Education (GCE) O'Levels, are internationally recognized qualifications. They are widely accepted by universities and employers around the world, making it easier for students to pursue higher education or job opportunities abroad.
2. **Rigorous Curriculum:** O'Levels typically have a more challenging and comprehensive curriculum compared to matriculation exams. This can better prepare students for advanced studies and develop critical thinking and problem-solving skills.
3. **Broad Subject Choices:** O'Levels offer a wide range of subject options, allowing students to specialize in areas of interest. This flexibility can help them tailor their education to their career aspirations.
4. **Standardized Assessment:** O'Levels exams are standardized and externally assessed by independent examination boards, ensuring fairness and transparency in the evaluation process. Matriculation exams may vary in quality and rigor depending on the specific education system.
5. **English Proficiency:** O'Levels are often conducted in English, which can enhance students' English language proficiency and open up opportunities for studying or working in English-speaking countries.
6. **International Perspective:** Studying for O'Levels can provide a more global perspective on education, as it is not limited to a single country's curriculum and is recognized internationally.
7. **Transferrable Credits:** O'Level qualifications can sometimes be more easily transferred to other educational systems, allowing students to transition to different countries or institutions without losing academic progress.
8. **Competitive Advantage:** O'Level qualifications may provide a competitive advantage when applying for scholarships, internships, or admission to prestigious institutions, both domestically and internationally.

However, it's essential to note that O'Levels may not be available or relevant in every country, and matriculation or other local qualifications may have their own advantages in certain contexts. The choice between O'Levels and matriculation should consider the specific educational system and career goals of the individual student. Additionally, it's important to keep up to date with the specific requirements and preferences of universities and employers in your region to make an informed decision about which qualification is more advantageous for your future endeavors.

## CAMPUS FACILITIES

Campus facilities for O'Levels classes that are laboratory equipped play a crucial role in providing a comprehensive and enriching educational experience for students. These facilities are designed to support practical and hands-on learning, allowing students to explore and understand various scientific and technical concepts. Here's a detailed note on the key aspects of such facilities:

1. **Well-Equipped Laboratories:** O'Levels classes with laboratory facilities should have specialized laboratories for subjects like Physics, Chemistry, Biology, and Computer Science. These labs should be equipped with modern, state-of-the-art apparatus, instruments, and materials to facilitate experiments and investigations.
2. **Safety Measures:** Safety is a top priority in laboratory settings. Adequate safety measures, including safety equipment such as goggles, lab coats, and emergency showers, should be in place to protect students and teachers from potential hazards associated with laboratory experiments.
3. **Skilled Laboratory Staff:** Competent laboratory staff, including lab assistants and technicians, are essential to ensure the smooth functioning of the labs. They should be knowledgeable in the subject matter, able to assist students with experiments, and capable of maintaining lab equipment.
4. **Lab Manuals and Experiment Guides**: The availability of well-structured lab manuals and experiment guides is important. These resources should outline the procedures, objectives, and expected outcomes of experiments, helping students understand the scientific principles involved.
5. **Storage and Organization:** Proper storage facilities for laboratory equipment and materials are necessary to maintain a clean and organized lab environment. Adequate space for storing chemicals, glassware, specimens, and other resources should be available.
6. **Computer Labs:** In addition to traditional science labs, O'Levels classes may also benefit from computer labs equipped with up-to-date computers and software for subjects like Computer Science and Information Technology. These labs support practical learning in areas like programming, data analysis, and software development.
7. **Practical Workstations:** Workstations within the laboratory should be equipped with individual lab benches, microscopes, and other necessary equipment for conducting experiments. Each workstation should be adequately spaced, allowing students to work comfortably.
8. **Internet Access:** Access to the internet within the laboratory can be useful for research, data analysis, and accessing online resources relevant to the experiments being conducted.
9. **Laboratory Demonstrations:** Periodic demonstrations by teachers or laboratory assistants can enhance students' understanding of experimental techniques and scientific concepts. These demonstrations can serve as practical examples and inspire students to explore further.
10. **Maintenance and Upkeep:** Regular maintenance and servicing of laboratory equipment are essential to ensure that they remain in good working condition. A well-maintained laboratory fosters a positive learning environment and reduces downtime due to equipment failures.
11. **Research Opportunities:** O'Levels laboratories may also provide opportunities for students to engage in research projects or extended experiments. This can stimulate critical thinking and scientific inquiry.
12. **Assessment and Feedback:** Laboratory work should be integrated into the overall assessment process, with experiments and practical assessments contributing to students' final grades. Timely feedback on students' performance in the laboratory can help them improve their skills.

# PERSONALITY DEVELOPMENT

Improving personality development in students is a significant goal for our school. Here's a comprehensive guide to fostering personality development within the school environment:

**1. Integrated Curriculum:**

- **Life Skills Education:** Integrate modules focusing on communication, problem-solving, decision-making, and interpersonal skills into the curriculum.
- **Character Building:** Include subjects or activities emphasizing values, ethics, and moral development.

**2. Holistic Approach to Education:**

- **Extracurricular Activities:** Offer a variety of clubs, sports, arts, and community service opportunities to encourage well-rounded growth.
- **Mental Health Support:** Establish counseling services to address emotional well-being and stress management.

**3. Teacher Training and Development:**

- **Soft Skills Training:** Conduct workshops for teachers to improve their ability to mentor students on emotional intelligence, communication, and conflict resolution.
- **Role Modeling:** Encourage teachers to embody the qualities you wish to cultivate in students.

**4. Encourage Self-Discovery:**

- **Personality Assessments:** Administer assessments like MBTI or Big Five to help students understand their strengths and areas for improvement.
- **Reflection and Goal Setting:** Incorporate activities that encourage self-reflection and goal-setting for personal growth.

**5. Emphasis on Communication Skills:**

- **Debates and Public Speaking:** Organize events or classes that promote articulation and effective communication.

**6. Leadership and Team Building:**

- **Leadership Programs:** Develop programs that encourage leadership qualities through responsibilities and collaborative projects.
- **Team-based Learning:** Assign group projects to foster teamwork, cooperation, and collective problem-solving.

**7. Cultural Exposure and Diversity:**

- **Cultural Exchange Programs:** Facilitate interactions with diverse cultures through exchange programs or cultural festivals.
- **Inclusion Initiatives:** Promote an inclusive environment that celebrates diversity and respects various perspectives.

**8. Technology Integration:**

- **Online Learning Platforms:** Utilize platforms offering courses on personal development or mindfulness.
- **Digital Citizenship:** Teach responsible use of technology and its impact on personal development.

**9. Parental Involvement:**

- **Workshops for Parents:** Conduct sessions to educate parents about nurturing positive personality traits in their children.
- **Collaborative Efforts:** Engage parents in school activities that emphasize holistic development.

**10. Continuous Evaluation and Feedback:**

- **360-Degree Feedback:** Establish mechanisms for students to receive feedback from peers, teachers, and self-assessment.
- **Progress Tracking:** Regularly assess and track the progress of students in their personality development journey.

**11. Create a Positive School Environment:**

- **Encourage Positive Behavior:** Implement rewards for displaying positive traits like empathy, honesty, and resilience.
- **Safe and Supportive Space:** Ensure a nurturing environment where students feel safe to express themselves.

- **Language Clubs:** Encourage participation in language clubs to enhance linguistic abilities.

- **Partnerships:** Collaborate with psychologists, life coaches, or experts in personality development to enrich the school's programs.

# CHARACTER BUILDING

Character building is an essential aspect of education that shapes students into responsible, ethical, and empathetic individuals. Here's a detailed plan for our school to focus on character building within our educational institution:

**1. Define Core Values:**

- **Identify Core Principles:** Establish and articulate the fundamental values that the school aims to instill in students, such as integrity, respect, responsibility, empathy, and perseverance.

**2. Integrate Values in Curriculum and Culture:**

- **Curricular Integration:** Weave character education into the academic curriculum through stories, discussions, case studies, and real-life examples across subjects.
- **School Culture:** Create a supportive culture where values are reinforced through assemblies, celebrations, and daily interactions among students and staff.

**3. Role Modeling and Teacher Training:**

- **Teacher Training:** Provide workshops and training to educators on incorporating character development in teaching practices and acting as role models.
- **Consistent Role Modeling:** Encourage teachers to exemplify the values the school promotes, fostering an environment of integrity and mutual respect.

**4. Promote Ethical Decision-Making:**

- **Ethics Education:** Introduce ethical dilemmas in lessons to encourage critical thinking and ethical decision-making.
- **Debate and Discussion Platforms:** Create forums for students to discuss moral issues and develop their own ethical compass.

**5. Encourage Community Engagement:**

- **Service Learning:** Implement community service programs to instill empathy, social responsibility, and a sense of empathy, and conflict resolution to enhance social and emotional intelligence.
- **Counseling Services:** Provide access to counselors who can guide students in managing emotions and building healthy relationships.

**7. Positive Reinforcement and Recognition:**

- **Acknowledgment Programs:** Establish rewards or recognition systems for students displaying exemplary character traits, fostering a positive culture.
- **Peer Recognition:** Encourage students to acknowledge and appreciate their peers' positive behaviors, fostering a supportive community.

**8. Encourage Reflection and Self-Awareness:**

- **Journaling or Reflection Sessions:** Allocate time for students to reflect on their actions, values, and personal growth.
- **Goal Setting:** Assist students in setting personal character development goals and tracking their progress.

**9. Parental Involvement:**

- **Workshops and Seminars:** Conduct sessions for parents to understand the school's character-building initiatives and involve them in reinforcing values at home.
- **Collaborative Efforts:** Engage parents in school activities that emphasize character development and ethical behavior.

**10. Continuous Evaluation and Improvement:**

- **Assessment Tools:** Employ tools to evaluate character development, such as surveys, interviews, and behavior tracking systems.
- **Feedback Loops:** Encourage feedback from students, teachers, and parents to refine character-building strategies continually.

**11. Cultivate a Supportive Environment:**

- **Safe and Inclusive Spaces:** Ensure a safe and inclusive environment where students feel comfortable expressing

contribution to society.

- **Partnerships:** Collaborate with local organizations or charities to provide opportunities for students to actively engage in community projects.

6. **Foster Emotional Intelligence:**
   - **Emotional Literacy:** Educate students about emotions,

themselves and practicing ethical behavior.

- **Conflict Resolution:** Teach conflict resolution skills to handle disagreements and promote understanding among peers.

12. **Community of Support and Collaboration:**
    - **Engage Stakeholders:** Collaborate with experts, psychologists, and community leaders to reinforce character-building initiatives.

- **Peer Mentorship Programs:** Facilitate older students mentoring younger ones, promoting positive character traits and behavior.

By implementing these strategies, we can create a comprehensive framework that emphasizes character development, nurturing students who embody integrity, empathy, and responsible citizenship.

## Pioneer Batch of O'LEVELS of 2024

Iqra school had taken the initiative in March 2024, of providing a significant platform where students took regular classes in an innovative environment. The qualified teachers not only verbalize the context knowledge but also did practicals and utilize the conceptual teaching methodology in the classroom.

**Conceptual Teaching/ Student Centered Environment:**

Conceptual learning not only enhances the cognition but also it tackles the disadvantages of rote learning by providing a holistic learning process. This approach helped the students to develop critical thinking approach and identify issues, generate possible solutions, evaluate the alternatives and implement the best course of action.

## Cheating Less Performance:

The objective was to provide cheating free environment where the competency only wins. Brief topic ending revision worksheets, Innovative Assessment methods and Semiannual evaluation were conducted that evaluated the competency and concepts of the students. It helped the student whatever he learned in the class through conceptual, observation and self study which gave him stairs towards the successful learning.

## Study Trip

Study visit provides the effective learning, boosts confidence, enhancing social skills and gives cultural exposure. It provides opportunities for mutual learning. It fosters face-to-face interaction and deep exploration towards innovative and creative ideas.

The students went for study visit to the Historic museum to identify the facts of the ancient items that was discovered by the archeologists. This played a vital role in the clarification of concepts and pointing the importance of history in youth's mind towards culture.

## Practical Based Teaching:

Practical based learning takes place during placements which involve a range of learning opportunities for student development. Students apply and consolidate their learning, bringing together academic theory, workplace practice to develop skills and competences needed to register. Practical based learning is supervised and structured to enable progress towards learning outcomes and usually involves assessment of the learner.

## Extracurricular Grooming:

Extracurricular activities gives the mental space to come back refreshed and ready to engage and succeed at whatever you're studying. Non-academic pursuits can also help to improve the mental and physical health by reducing stress, improving mood and increasing the energy levels.

Champions of Pre-Cambridge I not only nourished their energy but also proved themselves in the ground of sports. They enjoyed their academic session with the space of sports throughout the year.

## Islamiat Curricula for Pre-Cambridge I

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Major Themes of Quran | This relates with Allah himself, Allah's relationship with the created world, Allah's Messengers. |
| 2 | The History and Importance of the Quran | Student will study about the revelation of Quran to the Prophet PBUH, major themes of Quran, The use of Quran in legal thinking, its realtionship with hadiths, its significance as the basis of all thought and action in Islam. |
| 3 | The life and importance of The Prophet Muhammad (SAW) | Main events of Prophet's life from his childhood to the prophethood,his activities in Makkah with his opponents, His activities in Madina conflicts with makkans and others. The prophet's wives, his descendants including children, grandchildren. |
| 4 | The First Islamic Community in Madinah | Life in Madinah, Masjid-e-Nabvi as the main markaz. The period of Khulafai Rashideen. |
| 5 | The Articles of Faith and Pillars of Islam | Six articles of faith includng Allah and Muslim believe, books and contents of the purpose, Jehad, Resurrection and the last day, main events and its significance. Five pillars of islam |

## Islamiat Curricula for Pre-Cambridge II

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Major Themes of Quran (continued) | Passages from the Qurans for special studey with translation and themes and lesson learnt, |
| 2 | Major Teachings in the Hadiths Of the Prophet (hadiths with Translation and Themes) | This will relate to indiviual conduct and life in community, Muslims should believe and how should they act. |
| 3 | History and Importance of Hadiths | History of compilation of Hadiths, earliest collections, main musnad and munsaf collections, main compilers and their activities, main features ofsix collection of Sunni Hadiths and for collection of Shi'a Hadiths, major themes of hadiths, their use in legal thinking and relationship with Quran and analogy. |
| 4 | ThePeriod of rule of the Rightly Guided Caliphs and their importance as Leaders | The main events of rules of the four Caliphs, their policies in maintaining and expanding the states, their approaches to leading the community. |

## History Curricula for Pre-Cambridge I

student will study core content in either:

A: The nineteenth century : the development of modern nation states 1848-1914

B: The twentieth century: International relations since 1919

**Option A: core content in option A focuses on six key questions**

| S.No | Chapters | Sub- Topics |
|---|---|---|
| 1 | Were the revolutions of 1848 important? | how liberliasm and nationalism grown in influence by 1848?, causes, events and results of revolution in France, Italy, Germany and Austrian Empire |
| 2 | How was Italy unified? | Why was italy not unified in 1848-49?, how important was Garibaldi's contribution to unifying Italy? |
| 3 | How was Germany unified? | Why was Germany not unified in 1848-50?, How did Bismarck bring about France's defeat of 1870?, Bismarck's Foreign policy to 1871. |
| 4 | Why was there a civil war in the United States and what was its results? | How far did slavery cause the civil war?, What was the significance of Lincon's election as president?, Why was the North able to win the war?, |
| 5 | What caused the first World War? | Did the Alliance System and Global Diplomacy make war more likely or less likely?, How far did colonial problems create tension between the great Powers?. |

## History Curricula for Pre-Cambridge II

Student will study core content in either:

A: The nineteenth century : the development of modern nation states 1848-1914

B: The twentieth century: International relations since 1919

**Option B : core content in option B focuses on six key questions**

| S.No | Chapters | Sub- Topics |
|---|---|---|
| 1 | Was the treaty of Versailles fair? | What were the motives and aims of the Big Three at Versailles?, why did the victors not get everything they wanted?, What was the impact of the Treaty on Germany up to the end of 1923?, Could the Treaty be justified at the time? |
| 2 | To what extent was the League of Nations a success? | How far did weaknesses in the League's organisation and membership make failure inevitable?, How important was the League's humanitarian work?, How far the depression make the work of the leangue more difficult in the 1930s? |
| 3 | How far was Hitler's foreign policy to blame for the outbreak of war in Europe in 1939? | What were the long term consequences of the Treaty of Versailles? Was the policy of appeasement justified?, Why did Britian and France declare war on Germany in September 1939? |
| 4 | Who was to blame for the cold war? | Why did the US-Soviet alliance begin to break down in 1945?, how did the USSR gained the control of Eastren Europe by 1948?,Who was more to blame for starting the Cold war: the United States or the USSR? |
| 5 | How effectively the United Staes contained the spread of communism? | case studies of the United states and events in Lorea 1950-53, events and United states in Cuba 1959-62, American involvement in Vietnam 1955-75 |
| 6 | How secure was the USSR's control over Eastern Europe 1948-c. 1989? | How similar was events in Hungary in 1956 and in Czehoslovakia in 1968?, Why was the Berlin Wall built in 1961?, Wht was the significant of Solidarity in Poland for the decline of Soviet influence in Eastern Europe? |

## Geography Curricula for Pre-Cambridge I

All candidates take three components
Component 1: Geographical Themes - detail study in year I and Year II
Component 2: Geographical skills - skills of making topograpraphical maps, diagrams, maps, tables of data pictomaterials.
Component 3: Geographical investigations - skills of formulating and hypothesize, enquiry skills to collect data, data presentation techniques , analysis and making Conclusions.

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Theme 1: Population and Settlement | Population and dynamics, Migration, Population Structure, Population density and distribution, |
| 2 | Theme 2: The Natural Environment | Earthquakes and Volcanoes, Rivers, Coasts, Weather, |
| 3 | Theme 3: Economic Development | Development, Food production, Industry, |
| 4 | Component 2: Geographical skills | skills of making topograpraphical maps, diagrams, maps, tables of data pictomaterials. |
| 5 | Component 3: Geographical investigations | skills of formulating and hypothese, enquiry skills to collect data, data presentation techniques , analysis and making Conclusions. |

## Geography Curricula for Pre- Cambridge II

All candidates take three components
Component 1: Geographical Themes - detail study in year I and Year II
Component 2: Geographical skills - skills of making to pograpraphical maps, diagrams, maps, tables of data pictomaterials.
Component 3: Geographical investigations - skills of formulating and hypothese, enquiry skills to collect data, data presentation techniques , analysis and making Conclusions.

| S.No | Chapters | Sub- Topics |
|---|---|---|
| 1 | Theme 1: Population and Settlement | settlements and service provision,Urban Settlements, Urbanisation |
| 2 | Theme 2: The Natural Environment | Weather, Climate and Natural Vegetation, |
| 3 | Theme 3: Economic Development | Tourism, Energy, Water, Environmental Risks of Economic development |
| 4 | Component 2: Geographical skills | skills of making topograpraphical maps, diagrams, maps, tables of data pictomaterials. |
| 5 | Component 3: Geographical investigations | skills of formulating and hypothese, enquiry skills to collect data, data presentation techniques , analysis and making Conclusions. |
| 6 | How secure was the USSR's control over Eastern Europe 1948-c. 1989? | How similar was events in Hungary in 1956 and in Czehoslovakia in 1968?, Why was the Berlin Wall built in 1961?, Wht was the significant of Solidarity in Poland for the decline of Soviet influence in Eastern Europe? |

## Mathematics Curricula for Pre-Cambridge I

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Numbers | all types of numbers with the numbers and words, sets,powers and roots, fractions, ordering, four operations, indices, standard forms, estimation, limits of accuracy, Ratio and proportions |
| 2 | Algebra and graphs | introduction ti graphs, algebric manipulation, algebric fraction, indices II, Equations,Inequalities,Sequences, Proportions Graphs in Practicl Situations. |
| 3 | Coordinate Geometry | Coordinates, Grawing Linear graphs, Gradient of Linear graphs, length and mIdpoints |
| 4 | Geometry | Geometical terms, Geometrical constructions, scale drawings, similarity |
| 5 | Mensuration | Units of measure, Area and perimeter,Circles, arcs and sectors |
| 6 | Trigonometry | Pythagoras theorem, Right angled triangles, non right angles triangles, Pythagoras theorem and trigonometry |
| 7 | Transformation and vectors | Transformations, vectors in two dimensions, magnitude of a vector, vector geometry, |
| 8 | Probability | Introduction , Relative and expected frequencies, Probability of Combined events, |
| 9 | Statistics | Classifying the data, interpreting Statistical data, averages and measuring, statistical charts and diagrams, scatter diagram, cumulative frequency, histograms, |

## Mathematics Curricula for Pre-Cambridge II

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Numbers | Rates, percentages, using calculator to find answers and estimations,Time, money, exponential growth and decay, surds |
| 2 | Algebra and graphs | graphical functions, sketching curves, functions, indices II, Equations,Inequalities,Sequences, Proportions Graphs in Practicl Situations. |
| 3 | Coordinate Geometry | equations of line graphs, parallel lines, perpendicular lines, |
| 4 | Geometry | scale drawings, similarity, angles, circle theorem I,II, |
| 5 | Mensuration | arcs and sectors, surface area and volume, compound shapes and parts of shapes, |
| 6 | Trigonometry | Pythagoras theorem, Right angled triangles, non right angles triangles, Pythagoras theorem and trigonometry |
| 7 | Transformation and vectors | Transformations, vectors in two dimensions, magnitude of a vector, vector geometry, |
| 8 | Probability | Introduction , Relative and expected frequencies, Probability of Combined events, |
| 9 | Statistics | Classifying the data, interpreting Statistical data, averages and measuring, statistical charts and disgrams, scatter diagram, cumulative frequency, histograms, |

## Chemistry Curricula for Pre-Cambridge I

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | States of Matter | distinguish the properties of solids, liquids and gases, describ ethe structure of particles of states, separation and arrangementand motion, explanation of diffusion in terms of kinetic particle theory |
| 2 | Atoms , Elements and Compounds | description of elements, compounds and mixtures, atomic structure according to periodic table, define mass, atom atomic number, protons and electrons. Isotopes as different atoms of the same elements, interpret the use of symbols for atoms . The formation of positive ions,vationsand negative ions. the formation of covalent bonding, use of dot and cross diagrams to show electronic configuration, matallic bonding. |
| 3 | Stoichiometry | the formulae of the elements and compounds named in the subject content, molecular formula of a compound, define theemrirical formula of a compound, relative masses of atoms and molecules,the mole and Avogadro constant, |
| 4 | ElectroChemistry | electrolysis as decomposition of an iconic compound, identification of simple electrolytic,products formed at the electroodes, hydrogen-oxygen fuel cells, |
| 5 | Chemical Energetics | Exothermic and endothermic reactions, reactants,products, enthalpy change of the reaction, activation energy |
| 6 | Chemical Reactions | rate of reaction, reversible reaction and equillibrium, redox |

## Chemistry Curricula for Pre-Cambridge II

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Acids, bases and salts | the characteristics properties of cids and bases,oxides,preparation of salts |
| 2 | Periodic table | Arrangement of elements, group I properties, Group VII properties, transition elements, noble gases. |
| 3 | Metals | properties of metals,uses of metals, alloys and properties, reactivity series, corrisons of metals, extraction of Metals |
| 4 | Chemistry the Environment | Water,fertilisers, Air quality and climate, |
| 5 | organic Chemistry | formulae, functional groups and terminology, naming organic chemistry, fuels, alkanes, alcohols, carboxylic acids, polymers, |
| 6 | Experimental Techniques and Chemical Analysis | Experimental design, acid-base titrations, chromatography, separation and purification, identification of ions and gases, |

## Biology Curricula for Pre-Cambridge I

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | cells | cells structure and function, specialised cells, tissues and organs |
| 2 | Classification | concept and use of classification system, features of organisms |
| 3 | movement into and out of cells | Diffusion and osmosis, active transport |
| 4 | Biological molecules | Biological molecules |
| 5 | Enzymes | Enzyme action, effects of temperature and pH |
| 6 | Plants nutrition | Photosynthesis, leaf structure, mineral nutrition, |
| 7 | Transport in flowering plants | uptake and transport of water and ions, transpiration and translocation |

## Biology Curricula for Pre-Cambridge II

| S.No. | Chapters | Sub- Topics |
|---|---|---|
| 1 | Human Nutrition | Diet, Human Digestive system, absorption and assimilation |
| 2 | Human gas exchange | Human gas exchange, |
| 3 | Respiration | Respiration as chemical reactions in living cells, Aerobic respiration, Anaerobic respiration, |
| 4 | Transport in Humans | Circulatory system, heart, Blood vessels, blood, |
| 5 | Disease and immunity | diseases, antibiotics, immunity, |
| 6 | Excretion | Excretion, Urinary system, |
| 7 | Coordination and Control | Mammalian nervous system, Mammalian sense organ, hormones, Homeostasis, Temperature control, Blood glucose control, |
| 8 | development of organisms and continuity of life | nuclear division, asexual and sexual reproduction, production in plants and humans, Inheritance, Biotechnology and genetic modification |

## Physics Curricula for Pre-Cambridge I

| S.No | Chapters | Sub- Topics |
|---|---|---|
| 1 | Motion, Forces and Energy | Physical quantities and measurement techniques, motion, mass and weight, density, forces, momentum,, energy work and power, pressure |
| 2 | Thermal Physics | kinetic particle model theory, thermal properties and temperature, transfer of thermal energy, |
| 3 | Waves | Properties of waves, light, electromegnetic spectrum,sound, |
| | | |

## Physics Curricula for Pre-Cambridge II

| S.No | Chapters | Sub- Topics |
|---|---|---|
| 1 | Space Physics | Earth and solar system, stars and universe, |
| 2 | Nuclear Physics | Nuclear model of the atom, Radioactivity, |
| 3 | Electricity and Magnetism | Simple magnetism, electrical quantities, electrical quantities , electrical circuits, practical electricity,, magneti effects, uses of an oscilloscope |