**AITCHISON COLLEGE**

**LAHORE**



**A GUIDE TO ADMISSIONS**

**(SYLLABUSES)**

**ACADEMIC YEAR 2021-2022**

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| The Guide to Syllabuses is a ‘guide only.’ Papers for admission are set according to what the College requires of each year group for the purpose of ranking only. There is no ‘pass’ or ‘fail.’  Please refer to FAQ as information to be read in conjunction with this booklet. | |

**JUNIOR SCHOOL**

FOR ADMISSION TO CLASS: Grade 1 or K-1 **(Guide only)**

**MATHEMATICS**

**Note:** Use of calculator is not allowed.

Questions will be based on some or all of the following topics:

|  |  |
| --- | --- |
| 1. Pre-number | Use comparative terms for assessment of size, length, thickness and height of an object; apply descriptors such as bigger-smaller, longer-shorter, thicker-thinner, higher-lower etc. and other related words in connection with the above mentioned measurable parameters of objects. |
| 2. Whole number | Recognise numbers 1-50 inclusive through their association with objects and pictures (e.g. use of the idea of similar/dissimilar); count, name and write the numbers 1-50 inclusive; know which number comes before a given number, between two given numbers, follows a given number; order numbers 1-50 inclusive; knowledge of place value of a number (e.g. units and tens up to and including 50); addition by combining sets; addition of two numbers in which the sum does not exceed 48; subtraction of numbers represented by digits (e.g. manipulations with numbers 1-9 inclusive). |
| 3. Shapes | Identify similar/dissimilar shapes (e.g. illustrated with the use of a circle, rectangle, square, triangle and oval); show awareness that each of these shapes has a different pattern. |

**JUNIOR SCHOOL** *(continued)*

FOR ADMISSION TO CLASS: Grade 1 or K-1 **(Guide only)**

**ENGLISH**

**Note:** Questions will be based on some or all of the following areas in 1 & 2:

|  |  |
| --- | --- |
| 1. Words | Candidates will be expected to have developed: familiarity with phonics and spelling of simple words; knowledge of graphemes/phonemes correspondence through identifying and writing initial and final phonemes in words (e.g. fit, pan, mat etc.); recognition of sound and spelling patterns through use of rhyme to identify rhyming words (e.g. hop, top, mop and fat, mat, pat etc.). |
| 2. Sentences | Candidates’ understanding of basic rules for grammar and punctuation will be tested through: Use of a capital letter for the start of their own name and at the beginning of a sentence; construction of very simple sentences (e.g. 4-5 words); appreciation that a full stop ends a sentence; recognition of upper case and lower case letters of the alphabet and their sequence; phonological awareness (e.g. sounds of letters and words and be able to read them); knowledge sounds of vowels; formation and reading of three letter words, sight based vocabulary and ability to label pictures. |

**JUNIOR SCHOOL** *(continued)*

FOR ADMISSION TO CLASS: Grade 2 or K-2 **(Guide only)**

**MATHEMATICS Time: 1 Hour**

**Note:** Use of calculator is not allowed.

Questions will be based on some or all of the following topics:

|  |  |
| --- | --- |
| 1. Pre-number | Use comparative terms for assessment of size, length, thickness, height, capacity, weight etc. (or any other suitable parameter) of an object; apply descriptors such as bigger-smaller, longer-shorter, thicker-thinner, higher-lower, more-less, heavier-lighter etc. and other related words in connection with the above mentioned measurable parameters of objects. |
| 2. Whole number | Recognise and name numbers (up to hundreds); order numbers (1-99 inclusive); arrange these numbers on a ray and use it to represent addition and subtraction; appreciate the place value of a number e.g. units, tens and hundreds; add and subtract numbers up to hundreds; multiply single digit numbers and use multiplication tables (e.g. for 2, 3, 4, 5, 6 and 7) to solve simple problems. |
| 3. Shapes | Identify common shapes along with recognition of sides and corners (e.g. circle, rectangle, square, triangle and oval); distinguish between ‘open’ and ‘closed’ shapes. |
| 4. Fractions | Show familiarity with fractions and their symbolic notation (e.g. 1/2, 1/3, 2/3, 1/4, 2/4, 3/4 etc.). Identify fractions from highlighted sections of graphics of shapes; identify fractions on a given shape through suitable highlighting of the relevant portion. |
| 5. Time | Read and state time; name days and how many constitute a week; recall the names of the calendar months. |
| 6. Money | Identify currency and perform manipulation involving the denominations of currency in terms of coins and notes (e.g. Rs 1, Rs 2, Rs 5 and Rs 10, Rs 20, Rs 50, Rs 100); select correct amount of money to buy and sell items. |
| 7. Graphs | Interpret picture graphs. |
| 8. Patterns | Sort and classify objects by different properties; order objects by size or other numerical property; identify, analyse, and extend patterns of objects or numbers and recognise the same pattern in different manifestations. |

**JUNIOR SCHOOL** *(continued)*

FOR ADMISSION TO CLASS: Grade 2 or K-2 **(Guide only)**

**ENGLISH Time: 1 Hour**

**Note:** Questions will be based on some or all of the following areas in 1 & 2.

Read and comprehend a short story or passage or picture by answering questions that require: responses to, or descriptions of, events, actions or people; reasons for an event or action; use words or facts or information to answer questions; true or false responses.

1. Comprehension

Respond in writing to a question or topic or a picture. A candidate’s language/written skills will be gauged from an ability to form responses or convey ideas with coherency, use of vocabulary or choice of words, accuracy of spelling, simple sentence construction, imagination, description, and application of basic grammar rules.

Language skills may include: recognition of the alphabet, accurate use of nouns and verbs, sequence of words, identifying similar sounds, use of vowels, adjectives, rearranging narrative in correct sequence, constructing simple sentences from given words or instructions.

1. Language Skills & Writing

**PREPARATORY SCHOOL**

FOR ADMISSION TO CLASS: Grade 7 or E-2 **(Guide only)**

**ENGLISH Time: 1 Hour 15 min.**

1. Essay Writing/Short Story Imaginative Piece (Max 400 Words)
2. Comprehension (unseen passage)

**MATHEMATICS Time: 1 Hour 30 min.**

**Note:** Use of calculator is allowed.

Questions will be based on some or all of the following topics:

**REAL NUMBER SYSTEM (INTEGERS)**

* Sets of natural numbers, whole numbers and integers
* Even, odd, prime and composite integers

**FACTORS AND MULTIPLES**

* H.C.F. and L.C.M. of three numbers by prime factorisation method
* H.C.F. of two and three numbers by division method
* Link between H.C.F. and L.C.M.
* Word Problems
* Finding square roots of perfect square numbers by prime factorisation method or by division method

**BODMAS/THE FOUR OPERATIONS**

* Simplifying expressions involving two brackets
* Simplifying expressions involving three brackets (emphasis on problems involving common fractions)

**BASICS OF ALGEBRA**

* Introduction to *Algebraic Expression*
* Concept of *Coefficient*, variable and constant
* Concept of *Exponent* and *Base*
* Writing a natural number in exponential form
* Arranging a polynomial in ascending and descending order. First and second degree polynomials in one variable (Monomial, Binomial and Trinomial)
* Addition and Subtraction of monomials, binomials, and trinomials of first and second degree
* Multiplying and dividing one and two degree polynomials by a monomial

**ALGEBRAIC SENTENCES**

* Definition of expression, algebraic sentence, open sentences, equations and inequations

**SOLUTION OF LINEAR EQUATION**

* Solution of linear equations in one variable

**PERCENTAGES**

* Expressing a given quantity as a percentage of the other
* Percentage increase or decrease in a given quantity
* Word problem about percentage increase or percentage decrease

**POLYGONS**

* Introduction of plane, flat and curved surfaces
* Definition of a polygon, vertex, side and diagonal of a polygon
* Types of polygons (triangle, quadrilateral, pentagon, hexagon, heptagon, octagon) Introduction of regular and irregular polygons
* Definition of reflex angle
* Definitions of concave and convex polygons
* Drawing of convex polygons (pentagon, hexagon and octagon)
* Number of diagonals in 4-sided to 8-sided polygons
* Identification of exterior and interior angles of a polygon
* Find the measure of interior angles of a regular polygon and the sum of measures of all interior angles of a regular 3-sided to 8-sided polygon

**AREA AND PERIMETER**

* Finding perimeter of a semi-circular and quarter-circular region
* Finding area and perimeter of a triangular region
* Finding area and perimeter of shapes consisting of a combination of circular, semi-circular, triangular and square regions

**LINES AND ANGLES**

* Definition of parallel lines, rays and segments
* Identification of adjacent, alternate, corresponding, interior, vertically opposite, complementary and supplementary angles
* Finding measure of unknown angles at a point and on a straight line. Finding measure of unknown angles of a triangle

**GEOMETRICAL CONSTRUCTION**

* Construction of angles of measure 75o,105o,120o,135o and 150o with a pair of compasses
* Construction of triangle (all types)