



SCIENCEBEAM

TALENT SEARCH EXAM



Date of Exam : 27 - Oct - 2024 (Sunday)

General Instructions :

1. Be present at the exam center at least 30 mins before the exam time.
2. Use of the calculator or any other electronic device in the examination hall is strictly prohibited.
3. Use a HB pencil or Blue/ Black Ball pen only to mark your choice of answer in the OMR sheet by darkening a circle as shown below



4. Rough work should be done only on the sheet space provided in the booklet.
5. The exam pattern is of MULTIPLE CHOICE QUESTIONS and all of them are objective type.
6. The candidate can take the question booklet home after the exam.

GRADE V to VII

Grade	Duration	Exam Pattern		
Grade V to VII	2 Hrs (10:00 am to 12:00 Noon)	Section	No. of Questions * Marks	Total
		A(Novice)	10 * 1	10
		B(Master)	20 * 2	40
		C(Genius)	30 * 5	150
		Total	60	200

NOVICE : This section contains 10 Multiple Choice Questions. Each question has 4 choices (A), (B), (C) and (D) out of which ONLY ONE is correct. Each question carries "1" Mark. No negative Marks for wrong answer.

MASTER : This section contains 20 Multiple Choice Questions. Each question has 4 choices (A), (B), (C) and (D) out of which ONLY ONE is correct. Each correct answer carries "2" Marks. No negative Marks for wrong answer.

GENIUS : This section contains 30 Multiple Choice Questions Each question has 4 choices (A), (B), (C) and (D) out of which ONLY ONE is correct. Each correct answer carries "5" Marks. No negative Marks for wrong answer.

Grade V		
Mental Ability	Mathematics	Science
<ul style="list-style-type: none"> ■ Analogy ■ Blood Relations ■ Logical Venn Diagrams ■ Mathematical Operations ■ Arithmetical Reasoning ■ Inserting the Missing ■ Verbal Reasoning ■ Sequence & Series 	<ul style="list-style-type: none"> ■ Geometry : Shapes and Spatial understanding ■ Numbers : Numbers and operations ■ Mental arithmetic ■ Fractional numbers ■ Money ■ Measurement : Length ■ Data Handling ■ Patterns 	<ul style="list-style-type: none"> ■ Respiration ■ Digestion ■ Plants - Seed germination, root and shoot axis, baby plant, storage of food in the seed; seed dispersal. Insectivorous plants ■ Preservation of food, drying and pickling ■ Nutrition deficiency diseases. ■ WATER - Animals and plant life in water; classification in terms of similarities and differences. ■ Basic observations and classification related to floatation and solubility in water; basic concepts about liquids; litre as unit of measurement of volume ■ Stagnant and flowing water; mosquitoes and malaria. ■ Fuels used in vehicles; Non-renewable source. ■ Simple Machine ■ Matter ■ Energy

Grade VI		
Mental Ability	Mathematics	Science
<ul style="list-style-type: none"> ■ Analogy ■ Blood Relations ■ Logical Venn Diagrams ■ Mathematical Operations ■ Arithmetical Reasoning ■ Inserting the Missing ■ Verbal Reasoning ■ Sequence & Series 	<ul style="list-style-type: none"> ■ Number System : <ul style="list-style-type: none"> ○ Knowing our Numbers ○ Playing with Numbers ○ Whole numbers ○ Negative Numbers ○ Integers ○ Fractions ■ Algebra Introduction to Algebra ■ Ratio and Proportion ■ Geometry: Basic geometrical ideas Understanding Elementary Shapes (2-D and 3-D) Symmetry ■ Mensuration : Concept of Perimeter and Introduction to Area ■ Data handling 	<ul style="list-style-type: none"> ■ Plant parts and animal products as sources of food; herbivores, carnivores, omnivores. ■ Carbohydrates, fats, proteins, vitamins, minerals, fibers, their sources and significance for human health; balanced diet; diseases and disabilities due to food deficiencies. ■ Threshing, winnowing, hand picking, sedimentation, filtration. ■ How things change/ react with one another ■ Solubility, saturated solutions ■ Living / Non – living characteristics; habitat; biotic, abiotic (light, temperature, water, air, soil, fire) ■ Habitat - Plant and animal adaptation; other plant part modifications. ■ Morphological structure and functions of root stem and leaves. Structure of the flower, differences. ■ Structure and functions of the animal body; Human skeletal system, some other animals e.g. fish, bird, cockroach, snail ■ Measurement of length. Motion as change in position with time ■ Magnets ■ Evaporation and condensation, water in different states. Water cycle. ■ Light ■ Motion ■ Force

Grade VII		
Mental Ability	Mathematics	Science
<ul style="list-style-type: none"> ■ Analogy ■ Blood Relations ■ Logical Venn Diagrams ■ Mathematical Operations ■ Arithmetical Reasoning ■ Inserting the Missing ■ Verbal Reasoning ■ Sequence & Series 	<ul style="list-style-type: none"> ■ Number System : <ul style="list-style-type: none"> ○ Knowing our Numbers: ○ Fractions and rational Numbers ○ Powers: ■ Algebra ■ Algebraic Expressions ■ Ratio and Proportion ■ Geometry: <ul style="list-style-type: none"> ○ Understanding shapes ○ Properties of triangles: ○ Symmetry ○ Representing 3-D in 2-D: ○ Congruence ■ Mensuration <ul style="list-style-type: none"> Area of two-dimensional figures ■ Data handling 	<ul style="list-style-type: none"> ■ Autotrophic and heterotrophic nutrition; parasites, saprophytes; photosynthesis. ■ Types of nutrition. Nutrition in amoeba and human beings, Digestive system - human. Ruminants; types of teeth; link with transport and respiration. ■ Ions & Radicals ■ Classification of substances into acidic, basic and neutral; indicators ■ Criss-cross method & Chemical reaction. ■ Respiration in plants and animals. ■ Herbs, shrubs, trees; Transport of food and water in plants; circulatory and excretion system in animals. ■ Measurement of time using periodic events. Idea of speed of moving objects- slow and fast motion along a straight line. ■ Electric current and circuits ■ Light ■ Motion ■ Force ■ Work