

NARAYANA SCHOLASTIC APTITUDE TEST (NSAT-2012)

SYLLABUS SHEET

CLASS V Studying

FOR V STUDYING STUDENTS (Going to VI)		
GENERAL SCIENCE		MATHEMATICS
<ul style="list-style-type: none"> World around us Living and non-living objects Our body- organs and their functions Diseases - Causes and cure 	<ul style="list-style-type: none"> How things move – force and work Simple Machines The world of transport and communication Natural Resources 	<ul style="list-style-type: none"> Integers Fractions Decimals Factors and Multiples HCF and LCM Angles Perimeter

CLASS VI Studying

FOR VI STUDYING STUDENTS (Going to VII)			
SCIENCE			MATHEMATICS
PHYSICS	CHEMISTRY	BIOLOGY	
<ul style="list-style-type: none"> Motion and Measurement of Distances Light, Shadows and Reflections 	<ul style="list-style-type: none"> Fibre to Fabric Sorting materials into groups Separation of substances around us Water 	<ul style="list-style-type: none"> Food : Where does it come from ? Components of Food Getting to know plants Body movements 	<ul style="list-style-type: none"> Number system (Natural, Whole numbers and Integers) HCF and LCM Algebra (Factors & multiples, fraction, simplification, algebraic expression, linear equation one variable) Ratio and Proportion Geometry (Angles, Triangle, Quadrilateral, Circle)

CLASS VII Studying

FOR VII STUDYING STUDENTS (Going to VIII)			
SCIENCE			MATHEMATICS
PHYSICS	CHEMISTRY	BIOLOGY	
<ul style="list-style-type: none"> Motion and Time Electric Current and Its Effects Light 	<ul style="list-style-type: none"> Fibre to Fabric Acids, Bases and Salts Physical and Chemical Changes 	<ul style="list-style-type: none"> Nutrition in plants Nutrition in animals Weather, Climate and Adaptations of Animals to Climate 	<ul style="list-style-type: none"> Rational numbers Fraction and decimals, rational numbers HCF and LCM Lines and angles Comparing quantities (Profit and Loss) Exponent and power Algebraic expression

CLASS VIII Studying

FOR VIII STUDYING STUDENTS (Going to IX)			
SCIENCE			MATHEMATICS
PHYSICS	CHEMISTRY	BIOLOGY	
<ul style="list-style-type: none"> • Force and Pressure • Friction • Light 	<ul style="list-style-type: none"> • Synthetic Fibres and Plastics • Metals and Non metals • Coal and Petroleum • Combustion and Flame 	<ul style="list-style-type: none"> • Crop Production & Management • Microorganism • Conservation of Plants and Animals • Cell-Structure & Function 	<ul style="list-style-type: none"> • Rational Numbers • Powers • Squares and Square roots, Cubes and Cube Roots • Factorization • Linear Equation in One Variable • Understanding Quadrilaterals • Practical Geometry • Data Handling • Algebraic Identities

CLASS IX Studying

FOR IX STUDYING STUDENTS (Going to X)			
SCIENCE			MATHEMATICS
PHYSICS	CHEMISTRY	BIOLOGY	
<ul style="list-style-type: none"> • Motion, Uniform, Non uniform (Accelerated) • Forces and Laws of motion • Gravitation • 	<ul style="list-style-type: none"> • Matter in Our Surrounding • Is matter around us is pure? Properties of Matter, Solutions, Chemical Reactions • Atoms and Molecules • Mole Concept 	<ul style="list-style-type: none"> • Cell: The Fundamental Unit of Life • Tissues • 	<ul style="list-style-type: none"> • Number system • Exponents of real number • Rationalization • Algebraic identities • Factorization of Algebraic expression • Factorization of Polynomials • Co-ordinate geometry. • Introduction to Euclid's geometry • Lines and Angles • Triangle and Its angles • Congruent triangles • Heron's Formulae

CLASS X Studying

FOR X STUDYING STUDENTS (Going to XI)			
PHYSICS	CHEMISTRY	MATHEMATICS	BIOLOGY
<ul style="list-style-type: none"> • Motion • Force • Gravitation • Work and Energy • Wave Motion • Electricity and its heating and chemical effects • Magnetic effects of electric current 	<ul style="list-style-type: none"> • Chemical Reactions & Equations • Acid, Base and Salts • Periodic Classification • Metals and Non-Metals • Carbon Compounds 	<ul style="list-style-type: none"> • Real Number • Polynomial • Pair of Linear equation in two variables • Similar triangle • Trigonometry • Statistics 	<ul style="list-style-type: none"> • Life Processes • Control and Coordination

CLASS XI Studying

FOR XI STUDYING STUDENTS (Going to XII)			
PHYSICS	CHEMISTRY	MATHEMATICS	BOTANY
<ul style="list-style-type: none"> Physical World Units and measurements Motion in a straight line Motion in a plane Laws of motion Work, energy and power 	<ul style="list-style-type: none"> Some Basic Concepts of Chemistry Structure of Atom Classification of Elements and Periodicity in Properties Chemical Bonding and Molecular Structure 	<ul style="list-style-type: none"> Sets Relations and Functions Trigonometric Functions Principle of Mathematical Induction Complex Numbers and Quadratic Equations Linear Inequalities 	<ul style="list-style-type: none"> The Living World Biological classification Plant kingdom Morphology of Flowering Plants
			ZOOLOGY
			<ul style="list-style-type: none"> Animal Kingdom Morphology of Animals Cell The Unit of Life

CLASS XII Studying

FOR XII BOARD APPEARING STUDENTS			
PHYSICS	CHEMISTRY	MATHEMATICS	BOTANY
<ul style="list-style-type: none"> Electric Charges And Fields Electrostatic Potential And Capacitance Current Electricity Moving Charges And Magnetism Magnetism And Matter Electromagnetic Induction Alternating Current 	<ul style="list-style-type: none"> The Solid State Solutions Electrochemistry Chemical Kinetics Surface Chemistry 	<ul style="list-style-type: none"> Relations and Functions Inverse Trigonometric Functions Matrices Determinants Continuity and Differentiability Application of Derivatives Integrals Application of Integrals 	<ul style="list-style-type: none"> Reproduction in Organisms Sexual reproduction in flowering plants Principles of inheritance and variation Molecular basis of inheritance Strategies for enhancement in food production Microbes in human welfare Biotechnology Principles and Process Biotechnology and its applications
			ZOOLOGY
			<ul style="list-style-type: none"> Reproduction, Reproductive Health, Evolution Human Health, Animal Husbandry

- The Sample Questions given are not pertaining to the level of question with reference to any class. The type and level of questions may be different in main exam.
- The Test paper of VI – VIII will contain 20 questions each of MAT , Science and Maths. The Test paper of IX – X will contain 30 questions of MAT and 15 Questions each of Physics, Chemistry, Biology and Maths. The Test paper of XI – X11 will contain 30 questions of MAT and 20 Questions each of Physics, Chemistry, Biology/ Maths.
- Negative Marking Will be there.

SAMPLE QUESTIONS

MENTAL ABILITY TEST (MAT)

Directions: (1, 2): Number in the following question follow a certain pattern. Find out the missing number.

1. 10, 11, 12, 13, 15, 19, 27, 30, 39, 66, ___
(A) 150 (B) 140 (C) 80 (D) 70
2. 2, 3, 6, 4, 5, 20, 2, 9, ___
(A) 18 (B) 20 (C) 13 (D) 17

Directions: (3, 4): In each of the following question four words have been given, out of which three are alike in some manner and the fourth one is different. Choose out the odd one.

3. (A) Fish (B) Scorpion (C) Crab (D) Octopus
4. (A) Circle (B) Ellipse (C) Sphere (D) Cube

Directions: (5, 6): Each of the questions based on the following code scheme :

Code : Z A X B Y O T W C M I

Key : B Y E T F A I R U L D

5. BEAUTY will be written on
(A) ZXOCBA (B) ZXOCFI (C) ZXCOFI (D) ZXOFCI
6. TEARFUL
(A) BXOWYCM (B) BXWOYCM (C) BXCOWYM (D) BXOYWCM

Directions: (7, 8): Read the following information and answer the questions given below it :

7. I. F is the brother of A, II. C is the daughter of A
III. K is the sister of F IV. G is the brother of C.
Who is the uncle of G ?
(A) A (B) C (C) F (D) K
8. I am facing east. I turn 100° in the clockwise direction and then 145° in the anti clockwise direction. Which direction am I facing now ?
(A) East (B) North-east (C) North (D) South-west

Directions: (9, 10): A cube of side 16 cm, painted red and cut it into 4 cm small pieces of cube then answer the followings :

9. Find total number small cubes ?
(A) 64 (B) 32 (C) 48 (D) 84
10. How many small cubes are there which are having only three side painted ?
(A) 16 (B) 8 (C) 24 (D) 4

SCHOLASTIC APTITUDE TEST (SAT)

11. An unbalanced force acts on a body. The body
(A) Must remain at rest (B) Must move with uniform velocity
(C) Must be accelerated (D) Must move along a circle
12. The area under a speed-time graph is represented by Which of the following S.I. unit ?
(A) cm^2 (B) m^2 (C) m (D) cm
13. Incomplete combustion of carbon produces
(A) CO (B) CO_2 (C) C_3O_2 (D) H_2CO_3
14. Intermolecular space is the least in
(A) Water (B) Steam (C) Copper metal (D) All the above
15. Which one of the following is a fluid connective tissue?
(A) Areolar tissue (B) Cartilage (C) Blood (D) Ligament
16. Anaemia is caused by deficiency of
(A) Iodine (B) Iron (C) Vitamin B_{12} (D) All the above
17. The bisectors of any two adjacent angles of a parallelogram intersect at
(A) 30° (B) 45° (C) 60° (D) 90°
18. Four-fifths of a number is greater than three-fourth of the number by 4. The number is
(A) 12 (B) 64 (C) 80 (D) 102
19. Sum of the digits of a two-digit number is 9. The number obtained by interchanging the digits exceeds the given number by 27. Find the given number
(A) 36 (B) 45 (C) 27 (D) None of these
20. The perimeter of a rectangle is 240 cm. If its length is decreased by 10% and its breadth is increased by 20%, we get the same perimeter, then the length of the rectangle is equal to
(A) 120 (B) 80 (C) 40 (D) 20

Answer :	1. (D)	2. (A)	3. (B)	4. (D)	5. (A)	6. (A)	7. (C)	8. (B)	9. (A)	10. (B)
	11. (C)	12. (C)	13. (A)	14. (C)	15. (C)	16. (B)	17. (D)	18. (C)	19. (A)	20. (B)