SAV 6TH SYLLABUS

OFFICIAL

10. <u>चयन के लिए परीक्षा दो चरणों में संचालित होगी।</u>

(I) <u>प्रारम्भिक परीक्षा:</u> प्रारम्भिक परीक्षा पूर्णतः बहुवैकल्पिक वस्तुनिष्ठ (Objective) प्रश्नों पर आधारित होगी। कुल 150 अंकों की परीक्षा संचालित होगी एवं प्रत्येक प्रश्न एक अंक का होगा। परीक्षा की अवधि 2 घंटे 30 मिनट की होगी। प्रारम्भिक प्रवेश परीक्षा में चयनित अभ्यर्थी ही मुख्य प्रवेश परीक्षा में सम्मिलित होंगे।

(ii) <u>मुख्य परीक्षा:</u> मुख्य परीक्षा दो पाली में आयोजित होगी।

11. सत्र 2025–26 के लिए प्रारंभिक परीक्षा एवं मुख्य परीक्षा के लिए विषय एवं अंक निम्नवत् है:–

प्रारम्भिक परीक्षा			मुख्य परीक्षा				
क्र.सं.	विषय	अंक	पत्र	क्र.स.	विषय	अंक	कुल अंक
01	हिन्दी (वस्तुनिष्ठ)	30	पेपर–I (प्रथम पाली)	1	गणित (गैर–वस्तुनिष्ठ)	100	150
02	विज्ञान (वस्तुनिष्ठ)	25		2	बौद्धिक क्षमता (गैर–वस्तुनिष्ठ)	50	
03	सामाजिक विज्ञान (वस्तुनिष्ठ)	25	पेपर–II (द्वितीय पाली)	1	हिन्दी (गैर–वस्तुनिष्ठ)	40	150
04	गणित (वस्तुनिष्ठ)	40		2	अंग्रेजी (गैर–वस्तुनिष्ठ)	40	
05	अंग्रेजी (वस्तुनिष्ठ)	30		3	विज्ञान (गैर–वस्तुनिष्ठ)	40	
				4	सामाजिक विज्ञान (गैर–वस्तुनिष्ठ)	30	
कुल अंक		150	कुल अंक				300

Source: SAV

INSTRUCTIONS

12. परीक्षा में पूछे जाने वाले प्रश्नों का स्तर बिहार सरकार द्वारा पाँचवी कक्षा के लिए निर्धारित पाठ्यक्रम पर आधारित होगा।

13. **मुख्य परीक्षा की प्रथम पाली की परीक्षा पूर्वाह्न 10:00 बजे से अपराह्न 12:30 बजे तक तथा द्वितीय पाली की परीक्षा अपराह्न 01:30 बजे से 04:00 बजे तक यानि 02:30–02:30 घंटे की होगी।**

14. प्रारम्भिक प्रवेश परीक्षा राज्य के प्रत्येक जिला मुख्यालयों में निर्धारित परीक्षा केन्द्रों पर आयोजित की जाएगी। किसी जिला में प्रारम्भिक प्रवेश परीक्षा में परीक्षार्थियों की संख्या 50 से कम होने पर इस जिला के अभ्यर्थियों को निकटवर्ती जिला मुख्यालय में परीक्षा केन्द्र दिया जाएगा। प्रारम्भिक प्रवेश परीक्षा की संभावित **तिथि 16.10.2024 को अपराह्न 01:00 बजे से अपराह्न 03:30 बजे तक** आयोजित की जाएगी। उक्त परीक्षा की तिथि आवश्यकतानुसार संशोधन किया जा सकता है। मुख्य प्रवेश परीक्षा की संभावित **तिथि 20.12.2024** है। मुख्य प्रवेश परीक्षा पटना जिला मुख्यालय के परीक्षा केन्द्रों पर आयोजित की जाएगी।

15. प्रारम्भिक परीक्षा में लब्धांकों के आधार पर मुख्य प्रवेश परीक्षा में शामिल होने के लिए कोटिवार/छात्र–छात्रावार रिक्तियों की संख्या के 10 (दस) गुणकों में अभ्यर्थियों का चयन किया जाएगा।

16. मुख्य प्रवेश परीक्षा में समान अंक वाले अभ्यर्थियों में से अधिक उम्र वाले अभ्यर्थियों को अधिमान देते हुए मेधा सूची में शामिल किया जाएगा। समान प्राप्तांक एवं समान जन्मतिथि होने की स्थिति में मुख्य प्रवेश परीक्षा के प्रथम पत्र में अधिक प्राप्तांक प्राप्त करने वाले अभ्यर्थियों को चयन किया जाएगा। मुख्य प्रवेश परीक्षा के प्रथम पत्र में भी समान प्राप्तांक तथा समान अंक एवं समान जन्मतिथि होने की स्थिति में लॉटरी (Lottery) के माध्यम से अभ्यर्थियों का चयन किया जाएगा।

17. मुख्य प्रवेश परीक्षा के लिए मेधा सूची में स्थान प्राप्त करने वाले छात्र/छात्राओं को स्वास्थ्य परीक्षण हेतु चिकित्सा बोर्ड के समक्ष उपस्थित होना पड़ेगा, जिसमें सफल होने के उपरांत ही प्रवेश की स्वीकृति दी जाएगी।

18. मुख्य प्रवेश परीक्षा में सफल सभी अभ्यर्थियों को नामांकन के समय जाति प्रमाण–पत्र (आरक्षित कोटि के दावा करने वाले अभ्यर्थियों के लिए), आवासीय प्रमाण–पत्र, जन्मतिथि प्रमाण–पत्र, निःशक्तता प्रमाण–पत्र (निःशक्तता कोटि के दावा करने वाले अभ्यर्थियों के लिए) विद्यालय परित्याग प्रमाण–पत्र, बैंक खाता की छायाप्रति, माता–पिता के आय प्रमाण पत्र की मूल प्रति तथा छायाप्रति के साथ उपस्थित होना अनिवार्य होगा, अन्यथा नामांकन का दावा निरस्त कर दिया जाएगा।

19. परीक्षा आवेदन भरने से पूर्व अभ्यर्थी/अभिभावक यह सुनिश्चित कर लेंगे कि आवेदक इस परीक्षा में सम्मिलित होने हेतु एवं नामांकन हेतु निर्धारित पात्रता को पूर्ण करता है। प्रारंभिक/मुख्य परीक्षा हेतु प्रवेश पत्र का निर्गमन तथा चयन की अनुशंसा अभ्यर्थी की पात्रता को संपुष्ट नहीं करता है। यदि प्रारंभिक प्रवेश परीक्षा के आयोजन, चयन, मुख्य परीक्षा के आयोजन, चयन, नामांकन हेतु अनुशंसा अथवा नामांकन की प्रक्रिया में किसी भी स्तर पर यह पाया जाता है कि अभ्यर्थी उक्त परीक्षा में सम्मिलित होने हेतु एवं नामांकन हेतु निर्धारित पात्रता को पूर्ण नहीं करता है तो उसका अभ्यर्थित्व रद्द कर दिया जाएगा।

20. उक्त परीक्षा से संबंधित किसी प्रकार के विवाद का मामला केवल उच्च न्यायालय, पटना के क्षेत्राधिकार में होगा।

21. इस परीक्षा से संबंधित किसी भी प्रकार की सूचना, सूचना के अधिकार अधिनियम–2005 के अंतर्गत परीक्षाफल प्रकाशन की तिथि से 30 दिनों तक ही प्राप्त किया जा सकेगा।

Source: SAV

(d) **Chemistry** : Physical and Chemical changes. Elements, Mixtures and Compounds, Symbols, Formulae and simple Chemical Equations, Law of Chemical Combination, Properties of Air and Water, Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbondioxide, Oxidation and Reduction, Acids, bases and salts, Carbon and its forms, Natural and Artificial Fertilizers, Elementary ideas about the Structure of Atom, Atomic, Equivalent and Molecular Weights, Valency.

(e) **Biology** : Basic Biology, Life Process, Study of Birds, Human Beings, Uniqueness of human body, Food and Health, Necessity of balanced diet, Wasteful Food Practices, Food Yield, Essentials for good health, Cycles of materials, Ecological balance, Living resources, Habitat and Organisms, Adaptation.

Note:- **The above syllabus is not a comprehensive list of topics pertaining to the subject. Questions are designed to test the candidate's general awareness of the environment around him and its application to society. Questions are also designed to test knowledge of current events and such matters of everyday observation and experience as may be expected of an educated person. At times questions may be asked other than the above topics but definitely within the syllabus of CBSE.**

F. MENSURATION (Solid Geometry):

Surfaces & Volumes of Cube, Cuboids, Rectangular Parallelepiped, Right Prism, Right Pyramid, Right Circular Cylinder, Right Circular Cone and Sphere (application of the formulae without proof).

G. COORDINATES GEOMETRY:

Distance Between Two Points, Section Formulae, Coordinates of Centroid, Circumcentre, Incentre & Orthocentre of a Triangle, Area of a Triangle & Quadrilateral, Collinear Points, Equations of Straight Lines in Different Forms, Length of a Perpendicular, Distance Between Two Parallel Lines, Equations of Parallel & Perpendicular Lines, Coordinates of the Foot of Perpendicular, Angles Between Two Lines, Co-ordinates of a Point of Intersection, Equations of the Bisectors of the Angles Between Two Given Lines, Concurrent Lines.

PHYSICS

A. MEASUREMENTS

1. Fundamental units: Fundamental quantities, S.I. system of fundamental units, standard meter, standard kilograms, standard second, micron, Angstrom & light years, derived units.
2. Measurements of small length: Principal of vernier calipers & screw gauge and its applications, limit of accuracy of measurement, significant figures.

B. KINEMATICS:

1. Elementary Knowledge of Vectors:
   Distance & displacement, speed & velocity, representation of vector, addition of vectors (triangle & polygon method-only force diagram).
2. Acceleration
   Equation of motion under gravity (straight line).

C. MECHANICS:

1. Laws of Motion – Newton's law of motion, first law, second law of motion (force mass acceleration), unit of force (Newton & Kilogram weight), law of conservation of momentum, third law of motion.
2. Moment of Force – Moment of force and its unit, principal of moments, equilibrium of a body under the system of parallel forces, center of gravity, condition of stable, unstable and neutral equilibrium.

D. WORK, POWER & ENERGY:

Work ,Power, Energy and its units (Joule, Watt), definition of energy, kinetic energy, potential energy (examples of elastic, gravitational and electrical energy), Transformation of energy and its relation with work, conservation of mechanical energy, different forms of energy (including mass and energy relation).

E. HYDRO-STATICS:

Pressure in liquids & its dependence on density & depth, unit of pressure, laws of liquid pressure and deduction of Archimedes's principal from it, Floatation up thrust of gases, principal of simple barometer, calculation of atmospheric pressure from the height of mercury column, practical application.

F. VIBRATION:

1. Periodic motion, time period, frequency, amplitude, characteristics of simple harmonic motion (No mathematical derivation).
2. Wave Motion & Sound-Formation of wave and its mechanism of propagation, Transverse and Longitudinal waves, wave length, speed of wave, relation between frequency of infrasonic & ultrasonic, general idea about electro-magnetic waves (gamma rays, X-rays, ultrasonic rays, visible light, infrared radiation, sources of radio waves and it's simple example of application).

G.HEAT KINETIC THEROY OF MATTER:

1. Kinetic model of gases (no mathematical derivation). Explanation of the pressure of gases on the basis of kinetic theory, concept of temperature, relation between the pressure, volume and temperature of gases, ideal gas equation.
2. Thermal Expansion -Coefficient of thermal expansion of solid, liquid and gases, practical application of thermal expansion, liquid thermometer. Temperature scales (Celsius, Fahrenheit, & Kelvin).
3. Thermal Energy – Concept of internal energy, units of thermal energy (joule calorie). Thermal capacity and specific heat capacity. Latent heat, calorimeter (Principal of mixture, related problems).
4. Thermal Radiation - Dependence of rate of radiation on area, temperature & nature of surface, cooling curve, emissivity and its need.

H. LIGHT:

1. Some facts about light - Mutual independence of light rays, deviation from rectilinear propagation of light, scattering of light, diffused reflection.
2. Reflection of light – Laws of reflection, ray diagram showing the formation of images from spherical mirrors (convex & concave), its size and nature, derivation of mirror formula and its use in numerical problems, linear magnification.
3. Refraction of light on plane surface – Refraction & speed of light, Snell's law, refractive index, refraction on two parallel plane surfaces refraction, deviation, dispersion of light and total reflection in prisms.
4. Refraction through thin lenses – Converging & diverging nature of lenses; first & second principal focus. Ray diagrams showing the formation of images from lenses use of $1/V - 1/U = 1/F$ and its use in numerical problems (No derivation), linear magnification power of lenses and its unit (Diopter).
5. Optical Instruments – Formation of image in human eye power of accommodation, least distance of distinct vision, introduction of lenses as remedy of myopia (Short sightedness); hyper myopia (long sightedness), Photographic camera, slide projector, simple microscope and its magnifying power and arrangement of lense in compound microscope and astronomical telescope.

I. ELECTROSTATICS:

Atomic model of electrical phenomenon, negative, positive charge and their electron model, difference in conductor and non conductor (free electron model), electrostatic induction and explanation of conduction in metal on the basis of free electron model.

J. ELECTRICITY:

Simple Circuits – concept of electric current and potential difference, ampere and volt, electric cell, electromotive force, Leclanche cell, Daniell cell and drycell (with chemical reactions), polarization lead accumulator (chemical reaction not required) measurement of current and potential difference, Ohm's law, resistance & dependence of resistance on length of conductor, cross sectional area and nature of conductor specific resistance, combination of resistance in series and parallel, application of equivalent resistance in numerical problems internal resistance in numerical problems related with it. Series and parallel combination of cells.

CHEMISTRY

A. GENERAL & PHYSICAL CHEMISTRY

1. Science & scientific method, definition of chemistry, branches of chemistry and importance of chemistry in the modern age.
2. Matter and its three physical states & deviation based on molecular kinetic theory.
3. Atom, molecule and laws of chemical combination (Statement and examples).
4. Atomic structure, nuclear proton, neutron, atomic mass unit, electrons and their orbits (Atomic no. & isotopes) Introduction of radio activity and nuclear energy.
5. Valency- elctrovalency and co-valency.
6. Symbol, formula, chemical equation, and balancing of simple chemical equations.
7. Gas laws – Boyel's laws, charle's law, and gas equation; Gay-lussac's law of gascous volumes, Dalton's law of partial pressure and Grahm's law of diffusion.
8. Avogadro's Hypothesis and its importance.
9. Atomic weight, molecular weight & equivalent weight. Examples and methods of their determinations (for molecular weight only Victor Meyer's and Hoffman's method).
10. Faradays law of electrolysis, explanation of acid, base & salt, elementary concept of ionization. Principles of simple voltaic cell.
11. Different chemical reactions-addition, substitution, dissociation, hydrolysis, double decomposition, oxidation reduction and catalytic.
12. Explanation of solution- solution, solute, solvent saturated solution, unsaturated solution, and super saturated solution, normal solution-molal solution, molar solution, solubility, viz; reaction of solution, some important solvents water, benzene, ether, acetone, carbon tetrachloride and Alcohol.

B. INORGANIC CHEMISTRY:

1. Classification of elements, general characteristics of Mendeleev's periodic table.
2. Electronic configuration & position of the following elements in the periodic table, hydrogen, carbon, nitrogen, phosphorus, sulphur & chlorine.
3. Drinking water, volumetric composition of water, hard & soft water, temporary & permanent hard water. Physical & chemical methods for removal of hardness of water.
4. Laboratory method of preparation; properties and uses of the following gases; oxygen, nitrogen, chlorine, ammonia, sulphur dioxide, sulphurated hydrogen & hydrogen chloride.
5. Difference between metals & non metals, metallurgy of Aluminum.

C. ORGANICCHEMISTRY:

1. Introduction of organic chemistry. Definition and scope of organic chemistry, difference between organic & inorganic compounds. Preliminary introduction of tetrahedral nature of carbon atom.
2. Classification & nomenclature of organic compounds-Aliphatic & Aromatic (Homologous Series).
3. Methods of preparation and properties of Paraffins (Methane and Ethane) and unsaturated hydrocarbons (Ethylene and acetylene).
4. Simple introduction of Plastic, artificial fiber, medicines, explosives, soap and detergents.

D. NUMERICAL PROBLEMS:

Numerical problems based on the following topics – laws of chemical combination, percentage composition, Empirical and molecular formula, chemical equation, equivalent weight, valency, molecular weight of Volatile substances, Graham's Law of diffusion and Gas equation.

4. Domiciliary services to mothers and children.
5. Management of common obstetrical emergencies needing immediate treatment.
6. Family welfare advice.

- **Principles of Administration and Supervision, Education and Trends in Nursing**
  1. Principles of administration and its application to health administration at different levels.
  2. Organizational pattern for nursing components of hospital and public health service.
  3. Effective human relations to improve efficiency of the staff.
  4. Principles of supervision and develop skill in supervisory techniques.
  5. Trends in Nursing and nursing education in India and Abroad.
  6. Nursing as a profession and the rights, responsibilities and adjustment in professional life.
  7. Methods of teaching applicable to nursing.

B] General English: Candidates ability to understand correct English, his basic comprehension and writing ability would be tested, Questions in thisa computer will be designed to test the candidates understanding and knowledge of English language and will be based on spot the error, fill in the blanks, synonyms, antonyms, spelling/detecting mis-spelt words, idioms and phrases. One word substitution, improvement of sentences, active/passive voice of verbs, conversion into direct/indirect narration, shuffling of sentence parts, shuffling of sentences in a passage, comprehension passage and any other English Language questions at the Level of Matriculation /Higher Secondary

(Syllabus is only Indicative. The questions can assess any aspect of knowledge, aptitude, attitude and practical skills, which is expected from a trained person to work efficiently at the advertised post)

C] General Knowledge: Questions in this component will be aimed at testing the candidate's general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observations and experience in the scientific aspect as may be expected of any educated person. The test will also include questions relating to india and its neighboring countries especially pertaining history, culture geography, economic scene general policy & scientific research.

D] Reasoning: It would include questions of both verbal and nonverbal type. This component may include questions on analogies, similarities and differences, spatial orientation, problem solving, Analysis, judgment, decision making, discrimination, observation, relationship concepts, arithmetical reasoning and figural classification. arithmetic number series, non verbal series, coding and decoding, statement conclusion, etc the topics are, symbolic/ number analogy, figural analogy semantic classification, symbolic/Number Classification, Figural Classification, semantic series, number series, Figural series, problem solving, word building, coding & decoding, Numerical operations, symbolic operations Trends, space orientation, space Visualization, Venn diagrams, Drawing inferences, Punched hole/pattern-folding & unfolding. Figural pattern- Folding and completion, indexing. Address matching, Date & city matching, Classification of centre codes/roll numbers, small & capital letters/numbers coding, decoding and classification, Embedded Figures, Critical thing, Emotional Intelligence, Social Intelligence, Other subtopics, if any.

E] Mathematics Aptitude: The questions will be designed to test the ability of appropriate use of numbers and number sense of the candidate. The scope of the test will be computation of whole numbers, decimals, fractions and relationship between numbers percentage. Ration & Proportion, Square roots, Averages, Intrest, Profit & Loss, Discount, Partnership, Elementary Surds, Graphs of Linear Equation, Triangle and its various kinds of centres, Congruence and similarity of triangles,

Circle and its chords, tangents, angles substended by chords of a circle common tangents to two or more circles, Triangle, Quadrilaterals, Regular polygons, Circle, Right Prism, Right circular cone, Right circular cylinder, Sphere, Hemispheres, Rectangular Parallelpiped, Regular right pyramid with triangular or square base, Trignometric ration, Degree and radian Measures, Standard Identities, Complementary Angles, Heights and Distances, Histogram, Frequency, polygon, Bar diagram & pie chart.