PHYSICAL EDUCATION

Aims:

1. To create an awareness of the necessity for vigour and efficiency through physical fitness.
2. To develop knowledge and understanding of the requirements for healthy living, nutrition, exercise and relaxation.
3. To create awareness of the necessity to develop good posture and physical poise.
4. To develop knowledge and understanding of skills relating to leisure time activities and of a recreational nature.
5. To create opportunities to develop 'esprit de corps', courtesy, sportsmanship, social skills, democratic conduct and ideals.
6. To develop appreciation of the aesthetic and cultural aspects of movement.

CLASS IX

*There will be **one** written paper of **two** hours duration carrying 100 marks and Internal Assessment of 100 marks.*

PART 1: THEORY - 100 marks

1. The Body and how it works

(a) Basic organisation - *Cells, tissues, organs, organ systems (cell details only as far as can be seen through a school microscope).*

(b) Movement and support - *Function of skeleton, structure related to function of bodies (including bone-marrow), cartilage, ligaments, tendons, muscle types (cardiac smooth and skeletal) and their properties, joints, part played by nerves and blood in maintaining muscular action (voluntary and involuntary).*

(c) Respiration - *Structure and function of the respiratory system. Mechanism of breathing, including artificial maintenance. Tissue respiration -- energy release, ADP/ATP, aerobic, and anaerobic, lactic acid and oxygen debt.*

(d) Circulation - *Main features of heart and its circulatory system, arteries, veins, capillaries, lymphatics (only names required of the blood vessels of the liver and kidneys and those entering and leaving the heart). Composition and functions of blood. Blood groups A, B, AB, O and Rh factor. Outline only in the change and composition of blood as it passes through the wall of the small intestine, liver, lungs, muscles, kidneys and skin.*

(e) Nutrition - *Food constituents - carbohydrates, fats, proteins, mineral salts, roughage, and water. Source of food constituents - the sun as a source of man's energy, simple food chains. Principles of food handling, storage and preservation. Digestion, including dentition and tooth structure. Absorption and utilisation of food, including storage. Dietary requirements in man. Metabolism, energy content of food. Vitamins and deficiency diseases.*

(f) Excretion - *The excretion of waste material by the lungs, the skin. Control of heat loss: area/volume ratio. Hair and nails as outgrowths of skin. The general structure of the urinary system. The liver as an excretory organ.*

(g) Sensitivity and co-ordination - *Outline of nervous system - brain, spinal cord, sense organs. The sense of sight, hearing, smell, taste, touch and balance. Detailed structure of the eye and ear and simple experiments of taste and touch. The reflex arc, conditional reflex.*

PART 2: INTERNAL ASSESSMENT - 100 marks

Please note the guidelines for internal assessment as given for Class X.