#### NSTSE EXAM PATTERN

There will be a different Question Paper for each class. All the questions are objective-type with no negative marking for wrong answers.

Class No. Of Questions		Marks	
2	50	50	
3	75	75	
4-12	100	100	

Division of marks in the Question Paper:

#### For Classes II:

Mathematics : 25 Science : 25

#### For Classes III:

Note: (for Class III) Question Paper consists of 75 questions only & 75 marks.

Mathematics : 40 Science : 35

#### For Classes IV & V:

Mathematics : 45 Science : 45 General Questions : 10

#### For Classes VI to X:

Mathematics : 25
Physics : 25
Chemistry : 20
Biology : 20
General Questions : 10

### For Classes XI & XII (PCM)

Mathematics : 40 Physics : 25 Chemistry : 25 General Questions : 10

## For Classes XI & XII (PCB)

Biology : 40
Physics : 25
Chemistry : 25
General Questions : 10

All questions are in objective type only

NSTSE follows CBSE syllabus but Question Papers are also suitable for Students of ICSE/ISC and Various State Board/Matriculation Syllabi.

# **Sample Papers**

(Class XII Physics)

**Q-1** In a young's double slit experiment, let  $S_1$  and  $S_2$  be the two slits, and C be the centre of the screen. If angle  $S_1CS_2 = \theta$  and  $\lambda$  is the wavelength, the fringe width will be:

(A)  $\lambda/\theta$  (B)  $\lambda\theta$  (C)  $2\lambda/\theta$  (D)  $\lambda/2\theta$ 

**Q-2** In the circuit shown, the potential difference across 3 is:

**(A)**2V **(B)**4V **(C)**8V **(D)**16V

(A)AND	(B)NOT	(C)OR	(D)NOR		
<b>Q-4</b> The ratio of minimum to maximum wavelengths in the Lyman series of radiation that an electron causes in a Bohr's hydrogen atom is:					
( <b>A</b> ) 1/2	(B) zero	<b>(C)</b> 3/4	<b>(D)</b> 27/32		
Q-5 A solid metal sphere of radius 50 cm carries a charge 25 x 10- <sup>10</sup> C. The electrostatic potential at a distance of 20 cm from the centre will be:  (A) 15 V (B) 25 V (C) 35 V (D) 45V					

**Q-3** The circuit given below represents which of the logic operations?