

# Mathematics

Class 11

Time - 3 hrs

Max. Marks. - 100

General Instructions:-

- 1) All questions are compulsory.
- 2) The question paper consists of 29 questions divided into three

Sections: Section A  $\rightarrow$  10 question  $\rightarrow$  1 marks

Section - B  $\rightarrow$  12 question  $\rightarrow$  4 marks

Section - C  $\rightarrow$  7 question  $\rightarrow$  6 marks.

## Section - A

1. Write down all possible subsets of  $A = \{1, \{2, 3\}\}$
2. Find the domain of the real function,  $f(x) = \frac{x^2 + 2x + 1}{x^2 - 7x + 12}$
3. Solve:-  $\frac{x-3}{x+4}$
4. Compute:-  $\frac{(12!) - (10!)}{9!}$
5. How many terms are there in the A.P. 7, 13, 19, ..., 205?
6. Find the value of  $\tan 330^\circ$
7. Find the equation of a circle with centre (3, -2) and radius 5.
8. Find the length of the latus rectum of the hyperbola  $9x^2 - 16y^2 = 144$ .

