

## **AMC 8 Syllabus**

### **GRADE – 6**

#### **COURSE NO. 610 [MODULE – 1]**

1. MATH VOCABULARY & ORDER OF OPERATIONS
2. DIVISIBILITY RULES
3. PRIME NUMBERS
4. PRIME FACTORIZATION – I
5. PRIME FACTORIZATION – II
6. MONEY
7. EXPONENTS AND ROOTS
8. FRACTIONS AND PERCENTAGES
9. PROPORTIONS & RATIOS
10. ARITHMETIC SEQUENCES
11. GEOMETRIC FIGURES – I

#### **COURSE NO. 610 [ADVANCED LEVEL - MODULE – 2]**

- 1) MEASUREMENTS
- 2) DISTANCE AND WORK FORMULA
- 3) FUNDAMENTAL THEOREM OF COUNTING
- 4) FACTORIALS
- 5) PERMUTATIONS & COMBINATIONS
- 6) STATISTICS : MEAN, MEDIAN MODE AND RANGE
- 7) PROBABILITY
- 8) GEOMETRIC FIGURES – II
- 9) GEOMETRIC FIGURES – III
- 10) THE PYTHAGOREAN THEOREM

## **GRADE – 7**

### **COURSE NO. 710 [MODULE – 1]**

1. INTEGERS AND DIVISIBILITY
2. ORDER OF OPERATIONS
3. THE SUM OF FIRST 100 POSITIVE INTEGERS  
[SPOTLIGHT IS ON GAUSS]
4. COMMON FACTORS
5. SOLVING LINEAR EQUATIONS
6. COMPARE THE POWERS
7. THE LAST DIGITS OF AN INTEGER
8. PRIME NUMBERS
9. USING NOTATION IN COMPUTATIONS
10. FRACTIONS
11. FUN SEQUENCES
12. SIMPLE SUMS

### **COURSE NO. 720 [MODULE – 2]**

- 1) SEQUENCES
- 2) NUMBER OF TERMS IN A FINITE SEQUENCES AND MORE
- 3) FUNDAMENTAL THEOREM OF COUNTING
- 4) CONSECUTIVE NUMBERS
- 5) DIGITS OF NUMBERS
- 6) PROPORTIONS
- 7) AVERAGES
- 8) PERCENTAGES
- 9) ABSOLUTE VALUE
- 10) FACTORIALS
- 11) TANGRAMS
- 12) LETTERS & DIGITS
- 13) TRIANGULAR NUMBERS
- 14) POLYGONAL NUMBERS

## **GRADE – 8**

### **COURSE NO. 810 [MODULE – 1]**

1. ALGEBRAIC EXPRESSIONS
2. QUADRATIC EQUATIONS
3. SYSTEM OF LINEAR EQUATIONS
4. INEQUALITIES
5. COUNTING - I
6. PASCAL'S TRIANGLE & BINOMIAL CO-EFFICIENTS
7. PROBABILITY - I
8. MATHEMATICAL INDUCTION
9. COUNTING - II
10. PROBABILITY - II
11. FIBONACCI NUMBERS
12. PIGEONHOLE PRINCIPLE

### **COURSE NO. 820 [MODULE – 2]**

- 1) ANGLE CHASING - I
- 2) ANGLE CHASING - II
- 3) GEOMETRY OF TRIANGLES - I
- 4) GEOMETRY OF TRIANGLES - II
- 5) DISSECTION TIME
- 6) DISSECTIONS AGAIN
- 7) EQUILATERAL VS EQUIANGULAR
- 8) COMBINATORIAL GEOMETRY
- 9) AROUND THE DIVISION ALGORITHM
- 10) LEAST COMMON MULTIPLE
- 11) NICE NUMBERS