

THE G C SCHOOL OF CAREERS



ENTRANCE EXAMINATION SYLLABUS

MATHEMATICS

1. INTEGERS:

- Place value of a digit
- Prime and composite numbers
- Highest common factor (HCF) and Lowest common multiple (LCM)
- Indices (meaning, recognition, notation)
- Mixed operations-Verbal problems

2. FRACTIONS:

- Part of a whole and part of a group of objects
- Comparison and equivalence of fractions
- Arranging fractions in ascending or descending order
- Mixed numbers - simplifying fractions
- Changing fractions into decimals
- Mixed operations - Verbal problems

3. DECIMALS:

- Place value of a digit (tenths, hundredths, thousandths)
- Changing decimals to fractions
- Degree of accuracy
- Mixed operations
- Verbal problems

4. RATIOS – PROPORTIONS - PERCENTAGES

- Concept of a ratio
- Equal ratios, Simplifying ratios
- Use of a ratio to solve problems
- Finding missing quantities, Cross-multiplication
- Concept of a percentage
- Percentage increase / decrease

5. SIMPLE INTEREST

6. UNITS

- Metric units (cm,m,km,L,g,kg,cm²,m²,cm³)
Changing units
- Measuring time (hour, $\frac{1}{2}$ hour, min, second)
- Use of calendar (days, weeks, months, year, century)
- Currency problems

7. GEOMETRY

- Angles-Type of angles (right angle, acute, obtuse, complementary, Supplementary)
- Types of triangle (sum of angles)
- Area and perimeter of (Rectangle, Square, Parallelogram, Trapezium, Triangle)
- Circle (radius, diameter, circumference, area)
- Volume of cuboids

8. STATISTICS

- Pie charts and bar charts
- Arithmetic mean
- Probabilities (simple activities)

9. SOLUTION OF PROBLEMS

- Constructing a pattern
- Using logical thinking
- Estimating and checking
- Problems using investigation
- Problems with VELOCITY – DISTANCE – TIME