# PEA306:ANALYTICAL SKILLS-II

L:2 T:1 P:0 Credits:3

**Course Outcomes:** Through this course students should be able to

CO1 :: use the concepts learned in ratio and LCM to solve the problems related to time & work , pipes & cisterns

 $\mbox{CO2}$  :: determine the techniques of time speed & distance to solve the problems on trains and boats & stream

CO3:: apply the concepts learnt to solve the questions related to venn diagrams

 ${\sf CO4}::$  apply the concepts learnt to solve the problems based on clocks, calendar and mensuration

 ${\sf CO5}::$  apply the analytical reasoning concepts learnt to solve linear and circular seating arrangement based problems

CO6:: analyze the data to interpret and solve the given problems

### Unit I

**Time and Work**: problems based on time and work, formulae, computation of work done together, efficiency based problems, men, women, and children based problems, wages based work problems **Pipes and Cisterns**: inlet-outlet, part of tank filled, time based problems

#### Unit II

**Time, speed and distance**: average speed concept, concept of time, speed and distance, conversion of units and proportionality

Problem on trains: relative speed concept & application

Boats and Streams: downstream and upstream

#### **Unit III**

**Syllogism**: logical venn diagrams, ability to relate a certain given group diagrammatically, Possibility based questions

Arithmetical reasoning: venn diagrams based problems

Number ranking test: number test and ranking test problems

### **Unit IV**

**Mensuration**: problems on surface area and volume of cube, cuboid, problems on surface area and volume of sphere and hemisphere, problems on surface area and volume of cone and cylinder

Calendar: basic concept of calendar, date and days, finding the exact day

Clocks: concept of clock, facts and formulae, practice problems

### Unit V

Height and distance: problem based on height and distance

Analytical Reasoning: Linear seating arrangement, circular seating arrangement, puzzle test

**Cubes and Dices**: basic 3-D structure of a cube., evaluation of Cube with n' sides painted, numbers on a die, classification of dice, constructed and deconstructed dice

# Unit VI

**Data interpretation**: basics of data interpretation and its types, tabulation, bar graph, pie chart, and line graph

Data sufficiency: check sufficiency of data

### **Text Books:**

1. ANALYTICAL SKILLS - II by S.CHAND EXPERTS, S Chand Publishing

## References:

1. ANALYTICAL REASONING by MK PANDAY, BANKING SERVICE CHRONICLE

2. MAGICAL BOOK ON QUICKER MATHS by M.TYRA, BANKING SERVICE CHRONICLE