

## PEA308:ADVANCED ANALYTICAL SKILLS-II

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

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

CO1 :: apply the concepts learned to solve the problems related to time and work

CO2 :: select an appropriate approach for solution of time, speed and distance related problems

CO3 :: learn the various logical reasoning techniques to reach appropriate conclusions and solve the question related to logarithm and ranking.

CO4 :: use mathematical concepts learned to solve problems of mensuration, height and distance

CO5 :: understand the concepts of clock and calendar to solve competition based questions

CO6 :: remember various fast calculation techniques for quick and accurate data interpretation

### Unit I

**Time and work.** : efficiency based problems, wages based problems, chain rule, alternate work problems, advanced time and work problems

**Pipes and cistern** : inlet-outlet, part of the tank filled, time-based problems

### Unit II

**Time, speed and distance** : average speed concept, advanced time and speed based questions, ratio based problems, races

**Problem on trains** : relative speed concept & application

**Boats and stream** : downstream and upstream, two variable problems

### Unit III

**Syllogism** : logical venn diagrams, possibility based problems, negative statement-based problems

**Ranking test** : ranking test problems

**Logarithm** : concepts of the logarithm

### Unit IV

**Mensuration** : perimeter and area of 2-D figures, problems on surface area and volume of cube, cuboid, problems on surface area and the volume of sphere and hemisphere, problems on surface area and volume of cone and cylinder

**Height and distance** : problem based on height and distance, moving object based

### Unit V

**Calendar** : finding the exact day, advanced concept of calendar

**Clocks** : concept of clock, gain and loss of time, angle based problems

**Inequalities** : advanced concepts of inequalities

**Analytical reasoning.** : linear seating arrangement, circular seating arrangement, combined problems

### Unit VI

**Data interpretation** : bar graph-based problems, tabular based problems, pie-chart based problems, linegraph based problems, mixed graph-based problems, histogram based problems

**Data sufficiency** : check sufficiency of data

### Text Books:

1. A MODERN APPROACH TO VERBAL & NON-VERBAL REASONING by DR. R. S. AGGARWAL, S Chand Publishing
2. QUANTITATIVE APTITUDE by DR. R. S. AGGARWAL, 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

