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 efficiency of the person

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

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

CO4 :: use mathematical concepts learned to solve problems of mensuration, clocks and calendar

CO5 :: apply the concepts of of trigonometry to solve height & distance based problems

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

Unit I

Efficiency : efficiency based problems, wages based problems, chain rule, alternate work problems, advanced time and work problems

Inlet -Outlet Pipes : inlet-outlet, part of the tank filled, time-based problems

Unit II

Time, speed and distance : concept of time, speed and distance, conversion of units and proportionality, average speed concept, advanced time and speed based questions, ratio based problems, races

Relative speed : relative speed concept, application based questions on relative speed

Objects on moving body : downstream and upstream, two variable problems

Unit III

Syllogism : logical venn diagrams, possibility based problems

Logarithm : basic concepts of the logarithm

Time sequence and Ranking test : number test, ranking test, time sequence test

Unit IV

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

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

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

Unit V

Applications of trigonometry : problem based on height and distance, moving object based

Seating arrangements : linear seating arrangement, circular seating arrangement

Coded inequalities : basic concepts of inequalities, comparison of roots of equation

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. QUANTITATIVE APTITUDE by DR. R. S. AGGARWAL, S Chand Publishing

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

References:

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

References: 2. ANALYTICAL REASONING by MK PANDAY, BANKING SERVICE CHRONICLE