





Syllabus for COAA Gondia IndiGo Cadet Pilot Program

SUBJECTS	TOPICS
ENGLISH	1) PARTS OF SPEECH
	2) ERROR ANALYSIS IN SENTENCE CONSTRUCTION
	3) UNSEEN PASSAGE.
MATHS	1) MATHEMATICAL UNITS
	2) SURFACE AREA AND VOLUMES OF GEOMETRICAL FIGURES.
	3) BASIC TRIGNOMETRY
	4) RELATION BETWEEN SIN, COS, TAN AND THEIR INVERSES
	5) QUADRATIC EQUATION
	6) RATIO AND PROPORTION
	7) SPEED AND DISTANCE CALCULATION
	8) HCF
	9) INTERSECTION OF LINES
	10) DISTANCE BETWEEN POINTS
	11) AREA OF TRIANGLE USING CO-ORDINATES
	12) ALGEBRA OF VECTORS
	13) PROBABILITY
	14) DETERMINANTS
	15) MATHEMATICAL SCALE CONVERSION
	16) INTERSECTION OF LINES AND CIRCLES
	17) GP & AP (GEOMETRIC PROGRESSION & ARITHEMATICAL PROGRESSION)
PHYSICS	1) ROTATION OF EARTH

- 2) SHAPE OF EARTH
- 3) LATITUDE, LONGITUDE, PRIME MERIDIAN, ETC
- 4) CHANGE OF PHASE OF SUBSTANCES
- 5) THERMAL CONDUCTIVITY
- 6) NATURE OF MATERIAL IN RELATION TO THERMAL AND ELECTRICAL CONDUCTIVITY
- **7)** EQUATION OF MOTION
- 8) PRIMARY AND SECONDARY CELLS
- 9) PROPAGATION OF LIGHT AND SOUND
- **10)** HUMIDITY AND RELATIVE HUMIDITY
- 11) RELATIONSHIP BETWEEN TEMPERATURE, PRESSURE AND DENSITY OF GASES
- **12)** GAS LAW
- 13) MAGNETISM
- **14)** GRAVITATION
- 15) BASICS OF COMPUTER SCIENCE
- **16)** BASICS OF ELECTRONICS
- 17) INSTRUMENTS FOR MEASURING TEMPERATURE, PRESSURE, DENSITY, ETC
- 18) INTERNAL ENERGY AND SPECIFIC HEAT
- **19)** OHM'S LAW
- 20) DEFRACTION AND REFRACTION, REFLECTION OF LIGHT
- 21) NEWTON'S LAW OF MOTION
- 22) VARIATION OF PRESSURE WITH HEIGHT OR DEPTH
- 23) RIGID BODY ROTATION
- 24) MEASUREMENT USING SCREW GUAGE, VERNIER CALLIPER ETC.