



## SUBJECT WISE SOME IMP. TOPICS WISE SYLLABUS FOR GPAT

<b>Pharmacology</b> 22 Questions	<b>Drug classification, Mechanism of action, Adverse effect- related with a name like Gray baby syndrome, etc (Mostly you can follow: Anticancer, Antibiotics, Antifungal, Antiprotozoal, Diuretics, CNS depression, Antihistamines, Cardiovascular Drugs)</b>
<b>Medicinal Chemistry</b> 10 Questions	<b>SAR (Mostly Diuretics, BZDs, Morphin); Drug classification of (Sedative hypnotics, Antibiotics, Antimalarial, Morphin, Antihistaminic); Synthesis ( Thiazide Diuretics, Phenothiazine, Quinine, BZDS, Antihistaminic ) IUPAC Name of Steroidal drugs.</b>
<b>Organic Chemistry</b> 8 Questions	<b>IUPAC (Bicyclo, Spiro, and heterocyclic compounds), Optical and Geometrical isomerism. R, S / E Z, /Conformational isomerism, Newman and sawhorse projection, Name reaction ( Diels- Alder Reaction, Knoevenagel, Aldol Condensation, Baeyer-Villiger, Claisen Condensation, Cannizzaro reaction, Reimer Tiemann, Pericyclic reaction.</b>
<b>Pharmacognosy</b> 7 Questions	<b>Chemical test (glycoside and alkaloids most important), Microscopic Character (Senna, Digitalis, Aloe, Clove, Cardamom, Cinnamon, Belladonna, Vinca); Biosynthesis Pathway, Tissue Culture, Sources of Drugs; Classification of Drugs; Chemical constituents &amp; use of Ergot, Nux Vomica, Opium, Belladonna, Clove, Kurchi, Vasaka, Digitalis, Senna, Aloe, Clove, Cardamom, Cassia, Cinnamon, Ispaghula, Asafoetida, Peru &amp; Tolu balsam, Myrobalan, Arjuna, Pale &amp; black catechu.</b>
<b>Jurisprudence</b> 3 Questions	<b>Pharmacy acts Years only, Drug Schedule, DTAB Members</b>
<b>Analytical Chemistry</b> 6 Questions	<b>Woodward-Fieser Rule, Lambert's Law-Beer's law, UV Absorption Band &amp; shift, IR( Sampling technique, molecular vibration, Vibration range for different grs); NMR (No of signal calculation, Chemical shift), Mass Spectroscopy (types of peak, use) Gas chromatography (Detectors, Use), HPLC ( Instrumentation, use);</b>
<b>Pharmaceutics</b> 16 Questions	<b>Tablet ( Mostly Coating, instrument, and excipients), Capsule, Parenterals, Rheology (Nonnewtonian's flow) HLB Values, Surfactant, Carr's index, Hausner ratio, Angle of repose, Emulsion, Fick's law, Zeta Potentials, Preservatives, artificial sweetener dose calculation sums elf-life and half-life, vol of distribution &amp; plasma conc, rate of clearance, one and two-compartment model sums, AUC- Dose fraction -as i.v or oral; Bioavailability calculation.</b>
<b>Physical Chemistry</b> 3 Questions	<b>Chemical kinetics sums, Solution (molality, molarity , Normality and neutralization sums), Thermodynamics. Isotonic sums.</b>