B.Pharm. Third Year CBCS Pattern Semester-V

BP504T - Pharmacognosy and Phytochemistry-II

P. Pages : 3 **GUG/W/23/13182**

Time : Three Hours * 5 0 8 2 * Max. Marks : 75

Notes : 1. Illustrate your answers wherever necessary with the help of neat sketches.
2. All questions are compulsory.

1. Multiple Choice Question. **20x1 =20**

i) Glycyrrhetinic acid on hydrolysis produce.
a) Glycyrrhetinic b) 2 molecules of glucuronic acid
c) Both a and b d) None of the above

ii) Starting material of Shikimic acid pathway
a) Erythrose 4 phosphate b) Phosphoenolpyruvate
c) Shikimic acid d) Both a & b

iii) Number of Isoprene units present in Diterpene
a) One b) Four
c) Six d) Eight

iv) Mevalonic acid Pathway is also known as
a) HMG COA Reductase pathway b) Isoprenoid pathway
c) Mevalonate pathway d) All of above

v) Forskolin of coleus Forskohlii is useful for
a) Diabetic b) Antimalarial
c) Heart diseases d) Ulcer

vi) Himalayan yew is synonym of
a) Taxol b) Ginger
c) Digitalis d) Artemisia

vii) Codeine is narocotic ------- & --------- agent.
a) Analgesic & Anti tussive b) Analgesic & Sedative
c) Anti tussive & Sedative d) Sedative & Antimalarial

viii) Propagation of aloe are done under by
a) Seed b) Stem
c) Root Suckerd d) All the above

ix) Vincristine & Vinblastine are obtained from plant
a) *Catharanthus roseus* b) Atropa belladonna
c) *Plectranthus barbatus* d) Taxus brevifolia

x) Paper chromatography works on the principle of
a) Adsorption b) Absorption
c) Partition chromatography d) None of above

xi) Mayer's test can be used for the detection of
a) Alkaloids b) Tannins
c) Glycosides d) Iridoids

xii) Saponin glycoside shows one of the following property.
a) Laxative b) Astringent
c) Foaming d) Anticonvulsant

xiii) Condensed tannins are also called as
a) Hydrolysable tannins b) Non-hydrolysable tannins
c) Pseudo tannins d) Proto tannins

xiv) Colorless bitter glycoside known as amygdalin is obtain from which genus:
a) Prunus b) Aloe
c) Cassia d) None of above

xv) Identification of Spot on the TLC Plate is done by all the following EXCEPT:
a) Spraying with reagents b) Under Microscope
c) Fluorescence d) Fluorescent Adsorbent

xvi) *Cassia angustifolia* belongs to the family
a) Liliaceae b) Papaveraceae
c) Leguminosae d) Rosaceae

xvii) Which constituent act as a precursor for synthesis of steroidal compounds.
a) Taxol b) Podophyllotoxin
c) Diosgenin d) Sennoside

xviii) Guggul is a ------- type of resin
a) Oleo-gum-resin b) Glycoresin
c) Oleo resin d) All of above

xix) Detector used in radiotracer technique for biogenetic study.
a) Geiger muller counter b) Scintillation counter
c) Autoradiography d) All of above

xx) Half-life of Tracer isotopes should be
a) Sufficiently long b) Sufficiently less
c) Moderate d) None

2. Long answer question solve **any two.** **2x10 =20**

i) Define and classify alkaloids along with its types. Write a note on its identification tests along with one example of alkaloids.

ii) Elaborate the term primary and secondary metabolites and discuss in detail on shikimic acid pathway.

iii) Explain in brief about modern methods of Extraction techniques with its advantages & disadvantages.

3. Short answer question solve **any seven.** **7x5= 35**

i) Write a pharmacognostic note on Digitalis.

ii) Write the tracer techniques which is used for investigation of Biosynthetic pathway.

iii) Write Industrial production, estimation, and utilization of Forskolin.

iv) Write down on modern methods of chromatographic techniques.

v) Note on Citral phytoconstituents including its Isolation, identification & analysis.

vi) Differentiate between Tinnevelly senna and Alexandrian senna.

vii) Explain the different types of detectors used for identification of radiolabeled compound in biogenetic studies.

viii) Short note on HPLC and its application.

ix) Write Biological source, chemical constituents and uses of following drug. (any 2).
   a) Mentha.
   b) Clove.

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