

GUJARAT TECHNOLOGICAL UNIVERSITY

Pharm.D. 2nd year

Subject Name: Pharmacognosy & Phytopharmaceuticals

Subject Code: 828803

Theory (3 Hours/ Week, Total: 90 Hours)

Teaching Scheme (Hours)				Evaluation Scheme (Marks)				Total Marks
Theory	Tutorial	Practical	Total	Theory		Practical		
				External	Internal	External	Internal	
3	1	3	7	70	30	70	30	200

Sr. No.	Course Contents	Hours	Module Weightage
1	Introduction.	1	1%
2	Definition, history and scope of Pharmacognosy.	3	3%
3	Classification of crude drugs.	4	4.5%
4	Cultivation, collection, processing and storage of crude drugs.	9	10%
5	Detailed method of cultivation of crude drugs.	3	3%
6	Study of cell wall constituents and cell inclusions.	3	3%
7	Microscopical and powder microscopical study of crude drugs.	10	11%
8	Study of natural pesticides.	4	4.5%
9	Detailed study of various cell constituents	15	17%
10	Carbohydrates and related products.	3	3%
11	Detailed study carbohydrates containing drugs.(11 drugs)	9	10%
12	Definition sources, method extraction, chemistry and method of analysis of lipids.	8	9%
13	Detailed study of oils.	8	9%
14	Definition, classification, chemistry and method of analysis of protein.	4	4.5%
15	Study of plants fibers used in surgical dressings and related products.	4	4.5%
16	Different methods of adulteration of crude drugs.	2	2%

Course Materials:

Text books

- Pharmacognosy by G.E. Trease & W.C.Evans.
- Pharmacognosy by C.K.Kokate,Gokhale & A.C.Purohit.

Reference books

- a. Pharmacognosy by Brady & Tyler.E.
- b. Pharmacognosy by T.E.Wallis.
- c. Pharmacognosy by C.S. Shah & Qadery.
- d. Pharmacognosy by M.A. Iyengar.

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Practical (3 Hours/ Week, Total: 90 Hours)

General Requirements:

Laboratory Napkin, Observation book- 150 pages, Zero brush, Needle, Blade, Match box.

Sr. No.	Experiments
1	Introduction of Pharmacognosy laboratory and experiments.
2	Study of cell wall constituents and cell inclusions.
3	Macro, powder and microscopic study of Datura.
4	Macro, powder and microscopic study of Senna.
5	Macro, powder and microscopic study of Cassia.cinnamon.
6	Macro, powder and microscopic study of Cinchona.
7	Macro, powder and microscopic study of Ephedra.
8	Macro, powder and microscopic study of Quassia.
9	Macro, powder and microscopic study of Clove.
10	Macro, powder and microscopic study of Fennel.
11	Macro, powder and microscopic study of Coriander.
12	Macro, powder and microscopic study of Isapgol.
13	Macro, powder and microscopic study of Nux vomica.
14	Macro, powder and microscopic study of Rauwolfia.
15	Macro, powder and microscopic study of Liquorice.
16	Macro, powder and microscopic study of Ginger.
17	Macro, powder and microscopic study of Podophyllum.
18	Determination of Iodine value.
19	Determination of Saponification value and unsaponifiable matter.
20	Determination of ester value.
21	Determination of Acid value.
22	Chemical tests for Acacia.

23	Chemical tests for Tragacanth.
24	Chemical tests for Agar.
25	Chemical tests for Starch.
26	Chemical tests for Lipids.(castor oil, sesame oil, shark liver oil, bees wax)
27	Chemical tests for Gelatin.

Scheme of Practical Examination

	Internal/ Sessional	External
Identification	04	10
Synopsis	04	10
Major Experiment	07	20
Minor Experiment	03	15
Viva	02	15
Max. marks	20	70
Duration	3 hours	4 hours

Note: Total sessional marks is 30 (20 for practical sessional plus 10 marks for regularity, promptness, viva-voce and record maintenance)