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B PHARM
(SEM V) THEORY EXAMINATION 2021-22
PHARMACOGNOSY AND PHYTOCHEMISTRY-II

*Time: 3 Hours**Total Marks: 75***Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****10 x 2 = 20**

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| a. | Define chromatography with suitable example. |
| b. | Discriminate primary and secondary metabolites with example. |
| c. | Differentiate TLC and HPTLC. |
| d. | Write chemical test used to identify Cardiac glycosides. |
| e. | Differentiate hydrolysable and condensed tannins with example. |
| f. | Write the bio-sources and medicinal uses of Benzoin and Clove. |
| g. | Enlist various modern methods used for extraction. |
| h. | Define tannin. Write chemical test of tannins. |
| i. | Write biological source and chemical constituents of Tea and Taxol. |
| j. | Define radiotracer technique. Enlist various detectors used in tracer techniques. |

SECTION B**2. Attempt any two parts of the following:****2 x 10 = 20**

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| a. | Explain in detail about shikimic acid biosynthetic pathway. |
| b. | Describe the application of HPLC techniques used for standardization of herbal drugs. |
| c. | Illustrate industrial production, estimation and utilization of Forskolin and Caffeine. |

SECTION C**3. Attempt any five parts of the following:****7 x 5 = 35**

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| a. | Explain isolation of Atropine and Podophyllotoxin. |
| b. | Discuss bio-sources, therapeutic uses and commercial applications of Opium and Digitalis. |
| c. | Write about isolation, identification and analysis of Quinine. |
| d. | Describe about the industrial production and utilization of Sennosides and Digoxin. |
| e. | Write short note on Mevalonic Acid pathway |
| f. | Describe bio-sources, compositions, chemistry and therapeutic uses of Licorice and Rauwolfia. |
| g. | Describe in detail about application of spectroscopic techniques used for quality control studies of herbal drugs. |