**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI**
**(END SEMESTER EXAMINATION)**

**CLASS: M.PHARMA** **SEMESTER : I**
**BRANCH: PHARMACY** **SESSION : MO/19**

**SUBJECT: MPG103T PHYTOCHEMISTRY**

**TIME: 3:00 HOURS** **FULL MARKS: 75**

**INSTRUCTIONS:**
**1. The question paper contains 7 questions each of 15 marks and total 105 marks.**
**2. Candidates may attempt any 5 questions maximum of 75 marks.**
**3. The missing data, if any, may be assumed suitably.**
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
**5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.**

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| Q.1(a) | Explain the different methods to elucidate the biosynthetic pathways. | [7] |
| Q.1(b) | Build the biosynthetic pathway of cardiac glycoside and write the biological source, use and test for identification. | [8] |
| Q.2(a) | Build the biosynthetic pathway of diosgenin and write the biological source, use and test for identification. | [7] |
| Q.2(b) | Propose method for optimization of extraction procedure. | [8] |
| Q.3(a) | Build the biosynthetic pathway of two anthraquinone glycosides and write the biological source, use and test for identification. | [7] |
| Q.3(b) | Outline the biosynthetic pathway of Quinine, cinchonidine and elaborate its mechanism of action and uses. | [8] |
| Q.4(a) | Outline the biosynthetic pathway of Cucurbitacin along with the mechanism of action and uses. | [7] |
| Q.4(b) | Categorize and explain different routes used in drug discovery. | [8] |
| Q.5 | Categorize and explain different methods of preparation of plant extracts. | [15] |
| Q.6 | Propose different NMR and 2-D NMR methods for structural elucidation of natural compounds and explain them. | [15] |
| Q.7 | Discuss the different analytical method for identification of phytoconstituents. | [15] |

**::::::29/11/2019::::::E**