[Time: 2:30 Hours]   [Marks:60]

Please check whether you have got the right question paper.

N.B: 1. Attempt all questions.
2. Figures to the right indicate maximum marks assigned to the sub-question.

Q.1 (A) Attempt **Any Two** of the following

     i)   Give importance of WIPO.   **04**

     ii) Explain Trade Marks and give its types.   **04**

     iii) Discuss various materials that can be copyrighted with suitable examples.   **04**

     iv) Write a note on Industrial Design and its registration process.   **04**

  B) Explain the need for patenting and give advantages of Patents   **04**

<div align="center">OR</div>

  B) Explain PCT system and give its use   **04**

Q.2 A) Attempt **Any Two** of the following

     i)   Write note on Budapest Treaty   **04**

     ii) Describe Trade Secrets Protection   **04**

     iii) Write the note on the Berne convention   **04**

     iv) Explain TRIPS agreement in detail   **04**

  B) Write note on General Agreement on Tariffs and Trade (GATT)   **04**

<div align="center">OR</div>

  B) Explain Plant Breeders Rights   **04**

Q.3 A) Attempt **Any Two** of the following

     i)   Draw SMILES for the following   **04**

        a) nonane   b) benzene   c) 1-octene   d) acetic acid

     ii) What are connection tables?   **04**

     iii) Write a note on molecular modelling   **04**

     iv) Explain the full structure search.   **04**

  B) Give canonical representations of molecular structures.   **04**

<div align="center">OR</div>

  B) Give historical development of cheminformatics.   **04**

Q.4 A) Attempt **Any Two** of the following

    i)   What is docking? Explain ligand based docking in drug designing.   **04**

    ii) Give applications of cheminformatics.   **04**

    iii) Write a note-on toxicity.   **04**

    iv) Give design of QSAR   **04**

  B) Give analysis of HTS data.   **04**

<div align="center">**OR**</div>

  B) Give linear Free Energy Relation in brief.   **04**

Q.5   Attempt Any **Four** of the following

    i)   Write a note on Protocol related to the international registration trademarks.   **03**

    ii) Explain the role of the judiciary in Infringement issues related to Intellectual property   **03**

        rights.   **03**

    iii) Define Geographical Indications and give rules for its registration.   **03**

    iv) Explain Software patents and give its use.   **03**

    v) Give three names of file formats commonly used in representing the molecules.   **03**

    vi) State the rules of writing SMILES for molecules.   **03**

    vii)Write a note on library design in lead optimization.   **03**

    viii) Write a note on polar surface area.   **03**

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