

[Time:2.30 Hrs]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:** 1. All question are compulsory.
2. Figures to the right indicate full marks.

- Q. 1 A)** Attempt **Any Two** of the following:
- Define Industrial Designs and give its features. (04)
 - What is a Patent? Explain its importance. (04)
 - Give advantages of Intellectual Property Rights and its Protection. (04)
 - Write note on Trade Marks and give different types of Marks. (04)
- B)** Explain International Patent and give its significance. (04)
- OR**
- B)** Give importance of Geographical Indications to India and any one example of GI. (04)
- Q. 2** Attempt **Any Two** of the following:
- A)** i) What is GATT? Give its importance. (04)
- ii) What is the role of Judiciary and law enforcement agencies in case of IP infringement related issues? (04)
- iii) Explain Trade Secret with suitable example (04)
- iv) Give significance of Budapest Treaty. (04)
- B)** Write note on Paris convention. (04)
- OR**
- B)** Write note on World Intellectual Property Organization (WIPO) (04)
- Q.3 A)** Attempt **Any Two** of the following:
- Explain the sub structure search in chemoinformatics. (04)
 - Write a note on graph theory on chemoinformatics. (04)
 - Write a note on connection table in chemoinformatics. (04)
 - Define Cheminformatics and give prospects of chemoinformatics. (04)
- B)** Draw SMILES for the following (04)
- a) Hexanal b) Butanoic acid c) Fluoroethane d) Benzene
- OR**
- B)** Explain the following molecular descriptors
- a) BCUT descriptor b) kappa shape indices (04)

- Q. 4** Attempt **Any Two** of the following:
- A) i) Explain structure based drug design. (04)
ii) Give any two applications of chemoinformatics. (04)
iii) Write a note on computer assisted synthesis of compounds (04)
iv) Give analysis of HTS data.
- B) State Lipinski rule of five. (04)
- OR**
- B) Explain Linear Free Energy Relations. (04)

- Q. 5** Attempt **Any Four** of the following:
- i) What is the criteria for filing patent? Explain with suitable example. (03)
ii) How to obtain Industrial Design Patent in India. (03)
iii) Differentiate between GATT and WTO. (03)
iv) Write a short note on various laws in India related to Intellectual property. (03)
v) What are mol files? What information is available through mol file (03)
vi) Discuss molecular modeling (03)
vii) Write a note on ADMET properties (03)
viii) Give the names of software's commonly used in docking. (03)
