

QP CODE: 302326

Reg. No: .....

**Third Year Pharm D Degree Regular/Supplementary Examinations  
August 2022**

**Pharmaceutical Analysis**

**Time: 3 Hours**

**Total Marks: 70**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw Diagrams wherever necessary.*

**Essays**

**(3x10=30)**

1. Explain the different sampling techniques in IR spectroscopy.
2. Explain the construction, working, advantages and disadvantages of dropping mercury electrode. (3+3+2+2)
3. With a neat diagram, explain the different parts and working of HPLC.

**Short notes**

**(8x5=40)**

4. Explain the theory of fluorescence with energy level diagram.
5. Parameters of validation.
6. Mention the carrier gases used in gas chromatography and give their merits and limitations.
7. What are the types of electronic transitions observed when an organic molecule absorbs UV light.
8. Enumerate the types of ions formed in mass spectroscopy.
9. Explain the various types of X-ray diffraction methods.
10. Frontal analysis.
11. Explain the factors affecting R<sub>f</sub> value in TLC.

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