## VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM (Deemed to be University)

## Pharm.D DEGREE EXAMINATION August 2018 Third Year

## PHARMACEUTICAL ANALYSIS

Time: Three hours

Maximum: 70 marks

I. Write essays on any <b>TWO</b> questions:	(2 x 15 = 30)
1. a) Write the working concept and instrumentation of gas	
chromatography.	(10)
b) Write a note on GC derivatization techniques.	(5)
2. a) Enumerate the need of GLP in the pharmaceutical field.	. (5)
b) Explain the purpose of total quality management.	(5)
c) Describe the concept of statistical quality controls.	(5)
3. a) Explain the constructions and working principles of drop mercury	
electrode.	(10)
b) Write the merits and demerits of DME.	(5)

II. Write short answers on any **SIX** questions:

 $(6 \times 5 = 30)$ 

- 4. Write the principle involved in the end point determination by coductometric analysis .
- 5. Solve the Beer's and Lambert's Law.
- 6. Draw and describe the working principle of photo tube detector.
- 7. Write the difference between ampherometric and polarography analysis.
- 8. Write the advantage and disadvantages of gel electrophoresis.
- 9. Discuss the importance of quality based ICH guidelines.
- 10. Discuss the types of developmental techniques in paper chromatography.
- 11. Specify the stages involved in the atomic Absorption spectral Analysis.
- III. Write short notes on any **FIVE** question:  $(5 \times 2 = 10)$ 
  - 12. Write the uses of Ilkovic's equation.
  - 13. What is HETP?
  - 14. Define Infra Red Light.
  - 15. Write a note on spot detecting reagents in TLC.
  - 16. Define quality review.
  - 17. Classify the types of columns used in gas chromatography.