

AQ-2997

Faculty of Cosmetic Technology
M.Tech. (Quality Assurance) Semester-II
Examination (Old)
ADVANCED COSMETIC ANALYSIS-I
Paper—2-T-4

Time : Three Hours]

[Maximum Marks : 80

INSTRUCTIONS TO CANDIDATES

- (1) **ALL** questions carry equal marks.
- (2) Answer any **four** questions.
- (3) Diagrams and Chemical equations should be given wherever necessary.
- (4) Illustrate your answers wherever necessary with the help of neat sketches.
- (5) Use pen of blue/black ink/ refill only for writing the answer book.

1. (i) Discuss briefly the basic principles of UV spectroscopy.
10
- (ii) Briefly describe the scanning of UV spectrum of organic compound and UV's use in the study of complex ions.
10

2. Discuss the principle, instrumentation and application of IR. 20
3. (i) Give the estimation of a cosmetic compound by colorimetry. 10
(ii) What are the applications of colorimetry in cosmetic analysis ? 10
4. Compare the relative sensitivities of the nephelometer and turbidometer with examples. 20
5. Write short notes on (Any **four**) :
 - (i) Double beam UV spectrophotometer
 - (ii) Absorption and Emission of radiant energy
 - (iii) Densitometry
 - (iv) Beer's Law
 - (v) Qualitative and quantitative applications in pharmaceutical analysis by IR spectroscopy. 20