### DEPARTMENT OF CHEMISTRY

# SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND **SCIENCE COIMBATORE-641020**

(An Autonomous College Affiliated to Bharathiar University & Re-Accredited by NAAC with 'A' Grade)



**OFFERS** 

VALUE ADDED COURSE

PHARMACEUTICAL CHEMISTRY

(2017-2018)



#### IMPORTANT DATES

- ❖ Commencement of the course: 09.01.2018
- ❖ Last date for Registration:08.01.2018

#### **ELIGIBILE CANDIDATES:**

Final year UG and PG students.

#### GENERAL INSTRUCTIONS

- ➤ Classes will be conducted in off calendar hours
- Course fee including Examination fee : Rs.1000/=
- ➤ The duration of the course 60 Hours
- Minimum attendance 75% is mandatory to attend both theory and practical Examinations.
- > On successful completion of the course certificate will be provided.

#### Contact details:

Dr.G..Raja Asst.Prof. of Chemistry Mob. No. 9788177363 E-Mail: drrajachem@gmail.com

The world is the great gymnasium where we come to make ourselves strong

# Value Added Course Syllabus

# PHARMACEUTICAL CHEMISTRY

Total teaching hours: 60

#### Unit-I: Anatomy and Physiology

Human Anatomy and Physiology: Definitions of various terms used in anatomy. Structure of cell – Functions of its components with special reference to mitochondria and microsomes. Elementary tissues of the body. Classification of joints and their disorders. Composition of blood – Functions of blood elements – Blood groups. Name and functions of lymph glands. Brief description and functioning of digestive system – Respiratory system – Cardiovascular system – Urinary system – Reproductive system – Nervous system – Eye – Ear (very basic ideas only)

#### **Unit-II: Pharmaceutical Chemistry**

Definition of pharmaceutical chemistry – important aspects – history and development – history of pharmacopoeia, important terms used in chemistry of drugs (mention is enough). Drug – definition – classification. Prescriptions – reading and understanding of prescriptions – Latin names (mention is enough) – calculations involved in dispensing. Dose and dosage of drugs – factors influencing dosage on the basis of age, sex and surface area. Various formulations (names only). Introduction to pharmacology. Routes of administration of drugs.

(15 hours)

#### Unit-III: Marketing and communication

Modern marketing concept – approaches to the study of marketing – features of industrial, consumer and drug marketing. Consumer behavior – meaning – factors influencing market segmentation – strategies. Physical distribution – middle men functions. Factors influencing personal selling – salesmanship – evaluation of performance of sales force. Advertisement.

(15 hours)

# Unit-IV: English for better communication

Greeting – Marketing requests – seeking permissions – expressing gratitude – asking someone's opinion – asking if someone is sure – asking about possibility – asking about preference.

(15 hours)

#### **Practicals (15 Hours)**

Study of human skeleton and organs with charts. Recording of body temperature, pulse, heart rate and BP. Volumetric titrations – acid-base. Qualitative analysis of salts containing simple acid and basic radicals. Determination of melting point and boiling point of organic compounds. Detection of elements. Demonstration of synthesis of aspirin and paracetamol. Determination of pH.

#### References:

- 1. Basic principles of practical chemistry by V. Venkateswaran, R. Veeraswamy and A.R. Kulandaivelu, Sultan Chand & Sons.
- 2. Text book of quantitative chemical analysis by Vogel, Longman Scientific and Technical Publishing Company.

# Scheme of examination:

| S.No. |                                     | CIA | SE | Total | Study<br>hours/week |
|-------|-------------------------------------|-----|----|-------|---------------------|
| 1.    | Theory paper                        | 25  | 75 | 100   | 3                   |
| 2.    | Practicals (including field visits) | 15  | 35 | 50    | 1                   |
|       | Total                               |     |    | 150   |                     |

CIA- Continuous Internal Assessment; SE - Semester Examination