

# **Course Description**

## BP 303 T. PHARMACEUTICAL MICROBIOLOGY (Theory)

45Hours

### Scope:

- Study of all categories of microorganisms especially for the production of alcohol antibiotics, vaccines, vitamins enzymes etc..

**Objectives:** Upon completion of the subject student shall be able to;

1. Understand methods of identification, cultivation and preservation of various microorganisms
2. To understand the importance and implementation of sterilization in pharmaceutical processing and industry
3. Learn sterility testing of pharmaceutical products.
4. Carried out microbiological standardization of Pharmaceuticals.
5. Understand the cell culture technology and its applications in pharmaceutical industries.

### Course content:

#### Unit I

10 Hours

Introduction, history of microbiology, its branches, scope and its importance.

Introduction to Prokaryotes and Eukaryotes

Study of ultra-structure and morphological classification of bacteria, nutritional requirements, raw materials used for culture media and physical parameters for growth, growth curve, isolation and preservation methods for pure cultures, cultivation of anaerobes, quantitative measurement of bacterial growth (total & viable count).

Study of different types of phase contrast microscopy, dark field microscopy and electron microscopy.

#### Unit II

10 Hours

Identification of bacteria using staining techniques (simple, Gram's & Acid fast staining) and biochemical tests (IMViC).

Study of principle, procedure, merits, demerits and applications of physical, chemical gaseous, radiation and mechanical method of sterilization.

Evaluation of the efficiency of sterilization methods.



Equipments employed in large scale sterilization.

Sterility indicators.

### **Unit III**

**10 Hours**

Study of morphology, classification, reproduction/replication and cultivation of Fungi and Viruses.

Classification and mode of action of disinfectants

Factors influencing disinfection, antiseptics and their evaluation. For bacteriostatic and bactericidal actions

Evaluation of bactericidal & Bacteriostatic.

Sterility testing of products (solids, liquids, ophthalmic and other sterile products) according to IP, BP and USP.

### **Unit IV**

**08 Hours**

Designing of aseptic area, laminar flow equipments; study of different sources of contamination in an aseptic area and methods of prevention, clean area classification.

Principles and methods of different microbiological assay. Methods for standardization of antibiotics, vitamins and amino acids.

Assessment of a new antibiotic.

### **Unit V**

**07Hours**

Types of spoilage, factors affecting the microbial spoilage of pharmaceutical products, sources and types of microbial contaminants, assessment of microbial contamination and spoilage.

Preservation of pharmaceutical products using antimicrobial agents, evaluation of microbial stability of formulations.

Growth of animal cells in culture, general procedure for cell culture, Primary, established and transformed cell cultures.

Application of cell cultures in pharmaceutical industry and research.



---

**BP 307P.PHARMACEUTICAL MICROBIOLOGY (Practical)**

**4 Hrs/week**

1. Introduction and study of different equipments and processing, e.g., B.O.D. incubator, laminar flow, aseptic hood, autoclave, hot air sterilizer, deep freezer, refrigerator, microscopes used in experimental microbiology.
2. Sterilization of glassware, preparation and sterilization of media.
3. Sub culturing of bacteria and fungus. Nutrient stabs and slants preparations.
4. Staining methods- Simple, Grams staining and acid fast staining (Demonstration with practical).
5. Isolation of pure culture of micro-organisms by multiple streak plate technique and other techniques.
6. Microbiological assay of antibiotics by cup plate method and other methods
7. Motility determination by Hanging drop method.
8. Sterility testing of pharmaceuticals.
9. Bacteriological analysis of water
10. Biochemical test.

**Recommended Books (Latest edition)**

1. W.B. Hugo and A.D. Russel: Pharmaceutical Microbiology, Blackwell Scientific publications, Oxford London.
2. Prescott and Dunn., Industrial Microbiology, 4<sup>th</sup> edition, CBS Publishers & Distributors, Delhi.
3. Pelczar, Chan Kreig, Microbiology, Tata McGraw Hill edn.
4. Malcolm Harris, Balliere Tindall and Cox: Pharmaceutical Microbiology.
5. Rose: Industrial Microbiology.
6. Probisher, Hinsdill et al: Fundamentals of Microbiology, 9th ed. Japan
7. Cooper and Gunn's: Tutorial Pharmacy, CBS Publisher and Distribution.
8. Peppler: Microbial Technology.
9. I.P., B.P., U.S.P.- latest editions.
10. Ananthnarayan : Text Book of Microbiology, Orient-Longman, Chennai
11. Edward: Fundamentals of Microbiology.
12. N.K.Jain: Pharmaceutical Microbiology, Vallabh Prakashan, Delhi
13. Bergeys manual of systematic bacteriology, Williams and Wilkins- A Waverly company



## BP 408 P.PHARMACOLOGY-I (Practical)

4Hrs/Week

1. Introduction to experimental pharmacology.
2. Commonly used instruments in experimental pharmacology.
3. Study of common laboratory animals.
4. Maintenance of laboratory animals as per CPCSEA guidelines.
5. Common laboratory techniques. Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies.
6. Study of different routes of drugs administration in mice/rats.
7. Study of effect of hepatic microsomal enzyme inducers on the phenobarbitone sleeping time in mice.
8. Effect of drugs on ciliary motility of frog oesophagus
9. Effect of drugs on rabbit eye.
10. Effects of skeletal muscle relaxants using rota-rod apparatus.
11. Effect of drugs on locomotor activity using actophotometer.
12. Anticonvulsant effect of drugs by MES and PTZ method.
13. Study of stereotype and anti-catatonic activity of drugs on rats/mice.
14. Study of anxiolytic activity of drugs using rats/mice.
15. Study of local anesthetics by different methods

*Note: All laboratory techniques and animal experiments are demonstrated by simulated experiments by softwares and videos*

### Recommended Books (Latest Editions)

1. Rang H. P., Dale M. M., Ritter J. M., Flower R. J., Rang and Dale's Pharmacology, Churchill Livingstone Elsevier
2. Katzung B. G., Masters S. B., Trevor A. J., Basic and clinical pharmacology, Tata Mc Graw-Hill
3. Goodman and Gilman's, The Pharmacological Basis of Therapeutics
4. Marry Anne K. K., Lloyd Yee Y., Brian K. A., Robbin L.C., Joseph G. B., Wayne A. K., Bradley R.W., Applied Therapeutics, The Clinical use of Drugs, The Point Lippincott Williams & Wilkins
5. Mycek M.J, Gelnet S.B and Perper M.M. Lippincott's Illustrated Reviews- Pharmacology



## BP 404 T. PHARMACOLOGY-I (Theory)

45 Hrs

**Scope:** The main purpose of the subject is to understand what drugs do to the living organisms and how their effects can be applied to therapeutics. The subject covers the information about the drugs like, mechanism of action, physiological and biochemical effects (pharmacodynamics) as well as absorption, distribution, metabolism and excretion (pharmacokinetics) along with the adverse effects, clinical uses, interactions, doses, contraindications and routes of administration of different classes of drugs.

**Objectives:** Upon completion of this course the student should be able to

1. Understand the pharmacological actions of different categories of drugs
2. Explain the mechanism of drug action at organ system/sub cellular/ macromolecular levels.
3. Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.
4. Observe the effect of drugs on animals by simulated experiments
5. Appreciate correlation of pharmacology with other bio medical sciences

### Course Content:

#### UNIT-I

08 hours

##### 1. General Pharmacology

- a. Introduction to Pharmacology- Definition, historical landmarks and scope of pharmacology, nature and source of drugs, essential drugs concept and routes of drug administration, Agonists, antagonists( competitive and non competitive), spare receptors, addiction, tolerance, dependence, tachyphylaxis, idiosyncrasy, allergy.
- b. Pharmacokinetics- Membrane transport, absorption, distribution, metabolism and excretion of drugs .Enzyme induction, enzyme inhibition, kinetics of elimination

#### UNIT-II

12 Hours

##### General Pharmacology

- a. Pharmacodynamics- Principles and mechanisms of drug action. Receptor theories and classification of receptors, regulation of receptors. drug receptors interactions signal transduction mechanisms, G-protein-coupled receptors, ion channel receptor, transmembrane enzyme linked receptors, transmembrane JAK-STAT binding receptor and receptors that regulate transcription factors, dose response relationship, therapeutic index, combined effects of drugs and factors modifying drug action.
- b. Adverse drug reactions.
- c. Drug interactions (pharmacokinetic and pharmacodynamic)
- d. Drug discovery and clinical evaluation of new drugs -Drug discovery phase, preclinical evaluation phase, clinical trial phase, phases of clinical trials and pharmacovigilance.



---

**UNIT-III****10 Hours****2. Pharmacology of peripheral nervous system**

- a. Organization and function of ANS.
- b. Neurohumoral transmission, co-transmission and classification of neurotransmitters.
- c. Parasympathomimetics, Parasympatholytics, Sympathomimetics, sympatholytics.
- d. Neuromuscular blocking agents and skeletal muscle relaxants (peripheral).
- e. Local anesthetic agents.
- f. Drugs used in myasthenia gravis and glaucoma

**UNIT-IV****08 Hours****3. Pharmacology of central nervous system**

- a. Neurohumoral transmission in the C.N.S. special emphasis on importance of various neurotransmitters like with GABA, Glutamate, Glycine, serotonin, dopamine.
- b. General anesthetics and pre-anesthetics.
- c. Sedatives, hypnotics and centrally acting muscle relaxants.
- d. Anti-epileptics
- e. Alcohols and disulfiram

**UNIT-V****07 Hours****3. Pharmacology of central nervous system**

- a. Psychopharmacological agents: Antipsychotics, antidepressants, anti-anxiety agents, anti-manics and hallucinogens.
- b. Drugs used in Parkinsons disease and Alzheimer's disease.
- c. CNS stimulants and nootropics.
- d. Opioid analgesics and antagonists
- e. Drug addiction, drug abuse, tolerance and dependence.



**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 40

**BP503.T. PHARMACOLOGY-II (Theory)**

**45 Hours**

**Scope:** This subject is intended to impart the fundamental knowledge on various aspects (classification, mechanism of action, therapeutic effects, clinical uses, side effects and contraindications) of drugs acting on different systems of body and in addition, emphasis on the basic concepts of bioassay.

**Objectives:** Upon completion of this course the student should be able to

1. Understand the mechanism of drug action and its relevance in the treatment of different diseases
2. Demonstrate isolation of different organs/tissues from the laboratory animals by simulated experiments
3. Demonstrate the various receptor actions using isolated tissue preparation
4. Appreciate correlation of pharmacology with related medical sciences

**Course Content:**

**UNIT-I**

**10hours**

**1. Pharmacology of drugs acting on cardio vascular system**

- a. Introduction to hemodynamic and electrophysiology of heart.
- b. Drugs used in congestive heart failure
- c. Anti-hypertensive drugs.
- d. Anti-anginal drugs.
- e. Anti-arrhythmic drugs.
- f. Anti-hyperlipidemic drugs.

**UNIT-II**

**10hours**

**1. Pharmacology of drugs acting on cardio vascular system**

- a. Drug used in the therapy of shock.
- b. Hematinics, coagulants and anticoagulants.
- c. Fibrinolytics and anti-platelet drugs
- d. Plasma volume expanders

**2. Pharmacology of drugs acting on urinary system**

- a. Diuretics
- b. Anti-diuretics.

**UNIT-III**

**10hours**

**3. Autocoids and related drugs**

- a. Introduction to autocoids and classification
- b. Histamine, 5-HT and their antagonists.
- c. Prostaglandins, Thromboxanes and Leukotrienes.
- d. Angiotensin, Bradykinin and Substance P.
- e. Non-steroidal anti-inflammatory agents
- f. Anti-gout drugs
- g. Antirheumatic drugs





---

**UNIT-IV**

**08hours**

**5. Pharmacology of drugs acting on endocrine system**

- a. Basic concepts in endocrine pharmacology.
- b. Anterior Pituitary hormones- analogues and their inhibitors.
- c. Thyroid hormones- analogues and their inhibitors.
- d. Hormones regulating plasma calcium level- Parathormone, Calcitonin and Vitamin-D.
- d. Insulin, Oral Hypoglycemic agents and glucagon.
- e. ACTH and corticosteroids.

**UNIT-V**

**07hours**

**5. Pharmacology of drugs acting on endocrine system**

- a. Androgens and Anabolic steroids.
- b. Estrogens, progesterone and oral contraceptives.
- c. Drugs acting on the uterus.

**6. Bioassay**

- a. Principles and applications of bioassay.
- b. Types of bioassay
- c. Bioassay of insulin, oxytocin, vasopressin, ACTH, d-tubocurarine, digitalis, histamine and 5-HT



**PRINCIPAL**  
H.R Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

## BP 507 P. PHARMACOLOGY-II (Practical)

4Hrs/Week

1. Introduction to *in-vitro* pharmacology and physiological salt solutions.
2. Effect of drugs on isolated frog heart.
3. Effect of drugs on blood pressure and heart rate of dog.
4. Study of diuretic activity of drugs using rats/mice.
5. DRC of acetylcholine using frog rectus abdominis muscle.
6. Effect of physostigmine and atropine on DRC of acetylcholine using frog rectus abdominis muscle and rat ileum respectively.
7. Bioassay of histamine using guinea pig ileum by matching method.
8. Bioassay of oxytocin using rat uterine horn by interpolation method.
9. Bioassay of serotonin using rat fundus strip by three point bioassay.
10. Bioassay of acetylcholine using rat ileum/colon by four point bioassay.
11. Determination of  $PA_2$  value of prazosin using rat anococcygeus muscle (by Schild's plot method).
12. Determination of  $PD_2$  value using guinea pig ileum.
13. Effect of spasmogens and spasmolytics using rabbit jejunum.
14. Anti-inflammatory activity of drugs using carrageenan induced paw-edema model.
15. Analgesic activity of drug using central and peripheral methods

*Note: All laboratory techniques and animal experiments are demonstrated by simulated experiments by softwares and videos*

### Recommended Books (Latest Editions)

1. Rang H. P., Dale M. M., Ritter J. M., Flower R. J., Rang and Dale's Pharmacology, Churchill Livingstone Elsevier
2. Katzung B. G., Masters S. B., Trevor A. J., Basic and clinical pharmacology, Tata Mc Graw-Hill.
3. Goodman and Gilman's, The Pharmacological Basis of Therapeutics
4. Marry Anne K. K., Lloyd Yee Y., Brian K. A., Robbin L.C., Joseph G. B., Wayne A. K., Bradley R.W., Applied Therapeutics, The Clinical use of Drugs, The Point Lippincott Williams & Wilkins.
5. Mycek M.J, Gelnet S.B and Perper M.M. Lippincott's Illustrated Reviews- Pharmacology.
6. K.D.Tripathi. Essentials of Medical Pharmacology, , JAYPEE Brothers Medical Publishers (P) Ltd, New Delhi.
7. Sharma H. L., Sharma K. K., Principles of Pharmacology, Paras medical publisher
8. Modern Pharmacology with clinical Applications, by Charles R.Craig & Robert.
9. Ghosh MN. Fundamentals of Experimental Pharmacology. Hilton & Company, Kolkata.
10. Kulkarni SK. Handbook of experimental pharmacology. Vallabh Prakashan.



## BP602 T. PHARMACOLOGY-III (Theory)

45 Hours

**Scope:** This subject is intended to impart the fundamental knowledge on various aspects (classification, mechanism of action, therapeutic effects, clinical uses, side effects and contraindications) of drugs acting on respiratory and gastrointestinal system, infectious diseases, immuno-pharmacology and in addition, emphasis on the principles of toxicology and chronopharmacology.

**Objectives:** Upon completion of this course the student should be able to:

1. understand the mechanism of drug action and its relevance in the treatment of different infectious diseases
2. comprehend the principles of toxicology and treatment of various poisonings and
3. appreciate correlation of pharmacology with related medical sciences.

### Course Content:

#### UNIT-I

10hours

##### 1. Pharmacology of drugs acting on Respiratory system

- a. Anti -asthmatic drugs
- b. Drugs used in the management of COPD
- c. Expectorants and antitussives
- d. Nasal decongestants
- e. Respiratory stimulants

##### 2. Pharmacology of drugs acting on the Gastrointestinal Tract

- a. Antiulcer agents.
- b. Drugs for constipation and diarrhoea.
- c. Appetite stimulants and suppressants.
- d. Digestants and carminatives.
- e. Emetics and anti-emetics.

#### UNIT-II

10hours

##### 3. Chemotherapy

- a. General principles of chemotherapy.
- b. Sulfonamides and cotrimoxazole.
- c. Antibiotics- Penicillins, cephalosporins, chloramphenicol, macrolides, quinolones and fluoroquinolones, tetracycline and aminoglycosides

#### UNIT-III

10hours

##### 3. Chemotherapy

- a. Antitubercular agents
- b. Antileprotic agents



- c. Antifungal agents
- d. Antiviral drugs
- e. Anthelmintics
- f. Antimalarial drugs
- g. Antiamoebic agents

#### **UNIT-IV**

**08hours**

#### **3. Chemotherapy**

- l. Urinary tract infections and sexually transmitted diseases.
- m. Chemotherapy of malignancy.

#### **4. Immunopharmacology**

- a. Immunostimulants
  - b. Immunosuppressant
- Protein drugs, monoclonal antibodies, target drugs to antigen, biosimilars

#### **UNIT-V**

**07hours**

#### **5. Principles of toxicology**

- a. Definition and basic knowledge of acute, subacute and chronic toxicity.
- b. Definition and basic knowledge of genotoxicity, carcinogenicity, teratogenicity and mutagenicity
- c. General principles of treatment of poisoning
- d. Clinical symptoms and management of barbiturates, morphine, organophosphorus compound and lead, mercury and arsenic poisoning.

#### **6. Chronopharmacology**

- a. Definition of rhythm and cycles.
- b. Biological clock and their significance leading to chronotherapy.



**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

---

**BP 608 P. PHARMACOLOGY-III (Practical)**

**4Hrs/Week**

1. Dose calculation in pharmacological experiments
2. Antiallergic activity by mast cell stabilization assay
3. Study of anti-ulcer activity of a drug using pylorus ligand (SHAY) rat model and NSAIDS induced ulcer model.
4. Study of effect of drugs on gastrointestinal motility
5. Effect of agonist and antagonists on guinea pig ileum
6. Estimation of serum biochemical parameters by using semi- autoanalyser
7. Effect of saline purgative on frog intestine
8. Insulin hypoglycemic effect in rabbit
9. Test for pyrogens ( rabbit method)
10. Determination of acute oral toxicity (LD50) of a drug from a given data
11. Determination of acute skin irritation / corrosion of a test substance
12. Determination of acute eye irritation / corrosion of a test substance
13. Calculation of pharmacokinetic parameters from a given data
14. Biostatistics methods in experimental pharmacology( student's t test, ANOVA)
15. Biostatistics methods in experimental pharmacology (Chi square test, Wilcoxon Signed Rank test)

*\*Experiments are demonstrated by simulated experiments/videos*

**Recommended Books (Latest Editions)**

1. Rang H. P., Dale M. M., Ritter J. M., Flower R. J., Rang and Dale's Pharmacology, Churchill Livingstone Elsevier
2. Katzung B. G., Masters S. B., Trevor A. J., Basic and clinical pharmacology, Tata Mc Graw-Hill
3. Goodman and Gilman's, The Pharmacological Basis of Therapeutics
4. Marry Anne K. K., Lloyd Yee Y., Brian K. A., Robbin L.C., Joseph G. B., Wayne A. K., Bradley R.W., Applied Therapeutics, The Clinical use of Drugs. The Point Lippincott Williams & Wilkins
5. Mycek M.J, Gelnet S.B and Perper M.M. Lippincott's Illustrated Reviews- Pharmacology
6. K.D.Tripathi. Essentials of Medical Pharmacology, , JAYPEE Brothers Medical Publishers (P).Ltd, New Delhi.
7. Sharma H. L., Sharma K. K., Principles of Pharmacology, Paras medical publisher Modern Pharmacology with clinical Applications, by Charles R.Craig & Robert,
8. Ghosh MN. Fundamentals of Experimental Pharmacology. Hilton & Company, Kolkata,
9. Kulkarni SK. Handbook of experimental pharmacology. VallabhPrakashan,
10. N.Udupa and P.D. Gupta, Concepts in Chronopharmacology.



---

## BP 605 T. PHARMACEUTICAL BIOTECHNOLOGY (Theory)

45 Hours

### Scope:

- Biotechnology has a long promise to revolutionize the biological sciences and technology.
- Scientific application of biotechnology in the field of genetic engineering, medicine and fermentation technology makes the subject interesting.
- Biotechnology is leading to new biological revolutions in diagnosis, prevention and cure of diseases, new and cheaper pharmaceutical drugs.
- Biotechnology has already produced transgenic crops and animals and the future promises lot more.
- It is basically a research-based subject.

**Objectives:** Upon completion of the subject student shall be able to;

1. Understanding the importance of Immobilized enzymes in Pharmaceutical Industries
2. Genetic engineering applications in relation to production of pharmaceuticals
3. Importance of Monoclonal antibodies in Industries
4. Appreciate the use of microorganisms in fermentation technology

### Unit I

10 Hours

- a) Brief introduction to Biotechnology with reference to Pharmaceutical Sciences.
- b) Enzyme Biotechnology- Methods of enzyme immobilization and applications.
- c) Biosensors- Working and applications of biosensors in Pharmaceutical Industries.
- d) Brief introduction to Protein Engineering.
- e) Use of microbes in industry. Production of Enzymes- General consideration - Amylase, Catalase, Peroxidase, Lipase, Protease, Penicillinase.
- f) Basic principles of genetic engineering.

### Unit II

10 Hours

- a) Study of cloning vectors, restriction endonucleases and DNA ligase.
- b) Recombinant DNA technology. Application of genetic engineering in medicine.
- c) Application of r DNA technology and genetic engineering in the production of:
  - i) Interferon ii) Vaccines- hepatitis- B iii) Hormones-Insulin.
- d) Brief introduction to PCR



*Sens*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

### Unit III

10 Hours

Types of immunity- humoral immunity, cellular immunity

- a) Structure of Immunoglobulins
- b) Structure and Function of MHC
- c) Hypersensitivity reactions, Immune stimulation and Immune suppressions.
- d) General method of the preparation of bacterial vaccines, toxoids, viral vaccine, antitoxins, serum-immune blood derivatives and other products relative to immunity.
- e) Storage conditions and stability of official vaccines
- f) Hybridoma technology- Production, Purification and Applications
- g) Blood products and Plasma Substitutes.

### Unit IV

08Hours

- a) Immuno blotting techniques- ELISA, Western blotting, Southern blotting.
- b) Genetic organization of Eukaryotes and Prokaryotes
- c) Microbial genetics including transformation, transduction, conjugation, plasmids and transposons.
- d) Introduction to Microbial biotransformation and applications.
- e) Mutation: Types of mutation/mutants.

### Unit V

07 Hours

- a) Fermentation methods and general requirements, study of media, equipments, sterilization methods, aeration process, stirring.
- b) Large scale production fermenter design and its various controls.
- c) Study of the production of - penicillins, citric acid, Vitamin B12, Glutamic acid, Griseofulvin,
- d) Blood Products: Collection, Processing and Storage of whole human blood, dried human plasma, plasma Substitutes.

### Recommended Books (Latest edition):

1. B.R. Glick and J.J. Pasternak: Molecular Biotechnology: Principles and Applications of Recombinant DNA: ASM Press Washington D.C.
2. RA Goldshy et. al., : Kuby Immunology.
3. J.W. Goding: Monoclonal Antibodies.
4. J.M. Walker and E.B. Gingold: Molecular Biology and Biotechnology by Royal



**T243 Pharmaceutical Microbiology (Theory)**  
(3Hrs/weeks)

**Section I**

<b>1. Historical Development in Microbiology:</b> Contributions of Antony Van Leevenhock, Louis Pasteur, Robert Koch, Alexander Fleming, Paul Ehrlich and Edward Jenner and Joshep Lister.	02
<b>2. Characteristics of micro- organism :</b> Virus ,Bacteria (Eubacteria, actinomycetes, Rickettia)Fungi, protozoa, and algae.	04
<b>3. Structure of Micro-organism:</b> Virus : Ultra structure of Helical, polyhydal and complex virus Bacteria : size and shapes ,ultra structure of bacterial cell , cell wall , (gram positive ,gram negative , and acid fast)Glycocalyx, flagella, Endospore (ultra structure)Plasmid and Nucloid Fungi : Yeast , (Caandida albicans, Aacchromyces serevicieae) Mould (Penecillum sp , Asperagillus sp.)	06
<b>4. Microscopy and Staining:</b> Concept of magnification ,Numerical aperture and Resolution ,Immersion oil and its significance ,principles of staining,	04
<b>5. Microbial Growth:</b> Growth, curve Method of determination of growth, factors required for growth, : pH ,Temperature, osmotic pressure Oxygen Media (Synthetic and complex selective ,Enrichment Differential Media.) Isolation technique: Streak plate, Spread plate and pour plate.	07
<b>6. Control of Microbes:</b> Sterilization : TDP.TDT.DRT (D-value) Inactivation Factor, Z-value. Method of Sterilization: Dry heat, Moist heat, Radiation (Ionizing and No ionizing )Sterilents and filtration sterilization in pharmaceutical Industry ,Validation of Process Disinfection :Ideal disinfectant, Disinfectant, Mode of action and application of phenol and phenolic alcohol, Heave metals, Halogen detergent , Hydrogen Peroxide Antiseptic and preservative .	07

**Section-II**

<b>7. Pharmaceutical Microbiology and Human Health:</b> Definition and scope of Pharmaceutical Microbiology, Concept of infection, disease, immunity, Types of immunity, antigen, antibody, Epidemiology of disease, hypersensitivity, Concept of newly emerging disease (eg. SARS)	07
<b>8. Techniques in Pharmaceutical Microbiology:</b> Antimicrobial effectiveness testing, Microbial limit test, Pyrogen test, sterility test, Ames test, Microbial assay (Antibiotic and Vitamins), Phenol coefficient: (RW test and Chick Martin Test), MIC (Tube dilution method, Gradient plate method), Kirby-Bauer antibiotic sensitivity test and synergistic effect of drug.	12
<b>9. Microbial Pharmaceuticals:</b> General method for large scale production of Antibiotic , Vitamins and Vaccine. Antibiotic: Type, source, mode of action, Application. Vitamins: Type, source, Applications. Vaccine and Toxoid: DNA vaccine, Edible vaccine.	09
<b>10. Microbial Quality control and Quality Assurance:</b> Concept of Bio-safety, Sterile manufacturing unit, LAF. Storage and Stability of Medicine- Microbiological view.	02

Total Hours: 45

**Books Recommended:**

1. J.C.Black -- **Microbiology Principles and Examinations**, John wiley and sons
2. Frobisher -- **Fundamentals of Microbiology**
3. Ulhas Patil, J.S.Kulkarni-- **Foundations in Microbiology**
4. Stephan P. Denyer, N.A.Hodges, S.P.Gormao-- **Hugo and Rusell'sPharmaceutical Microbiology**
5. J.L.Ingraham, C.A.Ingraham.-- **Introduction to Microbiology**
6. Pleezar, Chan And Krig.-- **Microbiology**
7. Torrontam.-- **Foundation in Microbiology**
8. IP 1996, BP 2003, USP2004
9. Cooper and Gun -- **Tutorial Pharmacy**



*H.R. Patel*  
**PRINCIPAL**  
H.R Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405



**P243 Pharmaceutical Microbiology  
(Practical)**

<ol style="list-style-type: none"> <li>1. Introduction</li> <li>Lab Instruments: Autoclave, Hot air oven, Incubator, shaking incubator, Anaerobic jar, pHmeter, Antibiotic zone reader, Colony counter, Refrigerator.*</li> <li>2. Compound Microscope*</li> <li>3. Monochrome Staining**</li> <li>4. Gram Staining**</li> <li>5. Streak plate method**</li> <li>6. Pour plate method**</li> <li>7. Sterility test- Direct inoculation method (Sterile injectable, Sterile devices)**</li> <li>8. Microbial assay – Diffusion assay (Penicillin)**</li> <li>9. Microbial assay—Turbidometric (Streptomycin)**</li> <li>10. RW Test (Dettol)**</li> <li>11. Study of Oligodynamic action**</li> <li>12. Kirby-Baner antibiotic sensitivity test**</li> <li>13. Air micro flora**</li> <li>14. Microbial limit test (Water)**</li> <li>15. Minimum Inhibitory Concentration of aqueous garlic extract (Tube dilution method) **</li> <li>16. Study of permanent slides of yeast , Aspergillus and Penicillium. *</li> </ol>	
---	--

\* Indicate minor experiments

\*\* Indicate Major experiments

**Books Recommended:**

1. Cappuccino and Sherman—Microbiology of laboratory manual, Pearson Education
2. Indian Pharmacopoeia- 1996
3. Herold Benson – Applications in Microbiology

**Scheme for practical Examination**

Sr.No.	Head	Sessional	Annual
1	Synopsis	05	10
2	Major experiment	07	35
3	Minor experiment	04	15
4	Viva	04	10
5	Journal & Attendance	10	-
	Total	30	70
	Duration	03 Hrs	4 Hrs



  
**PRINCIPAL**  
 H.R. Patel Institute of Pharmaceutical  
 Education & Research  
 Shirpur Dist. Dhule (M.S) 425 405

T353 Pharmacology-I (Theory)

(3hrs/Week)

Sr. No.	Topic	No of Hrs
	<b>Section-I</b>	
1.	<b>General pharmacology</b>	
	a) Introduction and definition, history, sources of drugs.	02
	b) Routes of administration of drugs.	02
	c) Absorption of drugs and Biological factors affecting them.	02
	d) Drug distribution, Bio-transformation and excretion	03
	e) Mechanism of drug action – molecular and biochemical receptors and drug-receptor interactions, Theories for receptor mediated action. Concept of pD <sub>2</sub> . Signal transduction process. Dose response relationship, structure-activity relationship	10
	f) Factors modifying drug effects- Synergism, Antagonism, Drug Tolerance, Tachyphylaxis.	05
	<b>Section-II</b>	
	<b>General pharmacology-</b>	04
	g) Drug toxicity-Toxicity studies in Animals, ADR in Man.	
<b>Note:-</b> The Term <b>Pharmacology</b> used hereafter and in examinations refers to the classification, mechanism of action, pharmacokinetics, Pharmacodynamics, adverse effects, contraindication, therapeutic uses and dosage.		
2.	<b>Pharmacology of drugs acting on Autonomic Nervous System</b>	
	a) Introduction- neurohumoral transmission	02
	b) Adrenergic and cholinergic receptors	02
	c) Adrenergic drugs-bronchodilators and nasal decongestants	03
	d) Adrenergic receptor blockers, Adrenergic neuron blockers	02
	e) Cholinomimetics, Anti-cholinesterases and Drugs used in Myasthenia gravis	04
	f) Antimuscarinic agents	02
	g) Ganglionic blockers and stimulants	01
	h) Neuromuscular blocking agents	01
	Total Hrs.	45

**Books Recommended**

- 1) Satoskar R.S, Bhandarkar S.D, Rage N.N. Pharmacology and Pharmcotherapeutics. Popular Prakashan Mumbai 19<sup>th</sup> edition
- 2) Barar F.S.K. Essentials of Pharmacotherapeutics, S.Chand & Company Ltd. New Delhi
- 3) Tripathi K.D. Essentials of medical Pharmacology ,Jaypee New Delhi 2004 5<sup>th</sup> edition
- 4) Rang H.P., Dale M.M. *et.al.* Pharmacology. Churchill Livingstone, New Delhi 2005 5<sup>th</sup> edition
- 5) Katzung B.G .Basic & Clinical Pharmacology Mc-graw Hill, New Delhi 2001. 8<sup>th</sup> edition.
- 6) Lewis's Pharmacology. Churchill Livingstone London, 1980 5<sup>th</sup> edition
- 7) Goodman Gilman, The Pharmacological basis of therapeutics. Mc-graw Hill New Delhi 2001 10<sup>th</sup> edition
- 8) Seth S.D. Textbook of Pharmacology Elsevier, New Delhi 2004 2<sup>nd</sup> Edition



  
**PRINCIPAL**  
 H.R Patel Institute of Pharmaceutical  
 Education & Research  
 Shirpur Dist.Dhule(M.S) 425 405

- 9) Harvey R.A., Champe P.C. Lippincott's Illustrated Reviews-Pharmacology. Lippincott Williams & Wilkins , Pennsylvania. 2000 2<sup>nd</sup> edition .
- 10) Grahame-Smith D.G. & Aronson J.K. Oxford textbook of clinical Pharmacology and drug therapy . Oxford University press London. 2002 3<sup>rd</sup> edition
- 11) Foster R.W. Basic Pharmacology, Arnold ,New Delhi 2001 ,4<sup>th</sup> edition
- 12) Stahl S.M.. Essential Psychopharmacology Cambridge University Press New Delhi 2003 2<sup>nd</sup> edition
- 13) Dipro J.L. Pharmacotherapy Handbook. Tata McGraw Hill New Delhi.2004 5<sup>th</sup> edition.
- 14) Official books - Indian Pharmacopoeia, British Pharmacopoeia, United States Pharmacopoeia.
- 15) P.N.Patil, O.D.Gulati, R.Balaraman, Topics in The History of Pharmacology, B.S.Shah Prakashan, Ahmedabad.

**P353 Pharmacology-I (Practicals)**  
**(3hrs/Week)**

- 1) Study of laboratory animals and various preparations of them used in animal experimentation.
- 2) Study of laboratory appliances used in experimental pharmacology.
- 3) Study of various physiological salt solutions used in experimental pharmacology.
- 4) To establish Dose Response Curve of any **three** agonists using suitable animal tissue preparation.\*\*
- 5) To study the shift in D.R.C by Antagonists for above agonists-covering concept of Reversible and irreversible antagonism.\*\*
- 6) To determine PD<sub>2</sub> value \*\*
- 7) To study the various effects of drugs on Isolated frog heart using in silico model  
(Ex- Pharm# ,X' Cology or any such Soft-ware)\*

NOTES

1. Minor \* Major\*\*

2. Suitable animal preparation- Any experiment suitable to demonstrate the concept- It could be either in-vivo or in-vitro, The animal selected may be mice, rat, rabbit, guinea pig as admissible as per prevailing Government/CPCSEA guidelines. In case of in-vitro preparations- any tissue preparation from above animals or various tissues from goat may be obtained from slaughter house/ abattoir /butcher shop

3. Agonist- Any agonist that can exhibit activity using the given preparation as reported in standard books/journals may be selected e.g.-Adrenaline and other catecholamines, Acetyl Choline, Histamine, Serotonin, oxytocin etc.

4. Antagonist- Any antagonist that can exhibit blocking activity of above mentioned agonists in the given preparation as reported in standard books/journals may be selected.

**Minimum 12 experiments from above list must be conducted**

Examination Pattern is as follows

Sr. No.	Types of Question	Sessional	University
	Duration	3 Hrs	4 Hrs
1	Synopsis	5	10
2	Viva Voce	5	10
3	Exp. Major	-	30
	Minor	10	20
4	Journal Marks	10	-
	Total Marks	30	70

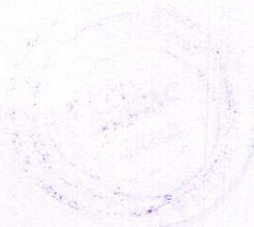
**Books Recommended**

- 1) Ghosh M.N. Fundamentals of Experimental pharmacology. Hilton & Company Kolkata 2005 3<sup>rd</sup> edition.
- 2) Vogel G.H. Drug discovery and evaluation. Springer Germany 2002 2<sup>nd</sup> edition.
- 3) Goyal R.K. Practicals in pharmacology. B.S. Shah Prakashan Ahmedabad 2005 5<sup>th</sup> edition.



  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

- 4) Kulkarni S.K. Handbook of Experimental Pharmacology. Vallabh Prakashan. New Delhi, 5<sup>th</sup> edition.
- 5) Perry W. L. M. Pharmacological Experiments on Isolated preparations. E.&S.Livingstone, London1970, 2<sup>nd</sup> edition.
- 6) Kasture S.B.Text book of Experimental Pharmacology, Career Publication Nashik.1 st edition, 2006.
- 7) Official books - Indian Pharmacopoeia, British Pharmacopoeia, United States Pharmacopoeia.



**P363 Pharmacology-II (Practicals)**  
**45 Hours (3hrs/Week)**

- 1) To perform Bio-assay of following drugs using following methods\*\*
  - a) Graphical/Interpolation method
  - b) Matching method
  - c) Three point method  
(Bio-assay of Acetylcholine, Histamine)
- 2) CNS experiments\*
  - a) Care and handling of common laboratory animals.
  - b) Introduction to animal physiology with their biochemical reference value in various animal species.
  - c) Study of various anaesthetics employed to anesthetize the laboratory animal.
  - d) Introduction to techniques of euthanasia, stunning, pithing etc.
  - e) Study of various routes of administration using various animals.
  - f) To study the Hypnotic property of drug/drugs using mice/rats as experimental animals (Different routes of drug administration can also be opted)
  - g) To study the drug induced catatonia in animals (Any one animal model-like baclofen/clonidine/haloperidol/pentazocine induced)
  - h) To study the effects of drugs on locomotor activity using Actophotometer
  - i) To study the Analgesic activity using suitable method. (Hot Plate, Tail Flick/Caudal Immersion, Acetic Acid/Formalin-Induced)
  - j) To study Anticonvulsant activity using MES/ PTZ..
  - k) To study drug antagonism on Isoalted frog heart preparation using softwares (Expharm, X-cology)

**NOTES:- 1. Minor \* Major\*\***

2. Suitable animal preparation- Any experiment suitable to demonstrate the concept- It could be either in-vivo or in-vitro, The animal selected may be mice, rat, rabbit, guinea pig as admissible as per prevailing Government/CPCSEA guidelines. In case of in-vitro preparations- any tissue preparation from above animals or various tissues from goat may be obtained from slaughter house/ abattoir /butcher shop  
**Minimum 12 experiments from above list must be conducted**

Examination Pattern is as follows

Sr. No.	Types of Question	Sessional	University
	Duration	3 Hrs	4 Hrs
1	Synopsis	5	10
2	Viva Voce	5	10
3	Exp. Major	-	30
	Minor	10	20
4	Journal Marks	10	-
	Total Marks	30	70

**Books Recommended**

- 1) Ghosh M.N. Fundamentals of Experimental pharmacology. Hilton & Company Kolkata 2005 3<sup>rd</sup> edition.



*H.R. Patel*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

- 10) Grahame-Smith D.G. & Aronson J.K. Oxford textbook of clinical Pharmacology and drug therapy . Oxford University press London. 2002 3<sup>rd</sup> edition
- 11) Foster R.W. Basic Pharmacology, Arnold ,New Delhi 2001 ,4<sup>th</sup> edition
- 12) Stahl S.M.. Essential Psychopharmacology Cambridge University Press New Delhi 2003 2<sup>nd</sup> edition
- 13) Dipiro J.L. Pharmacotherapy Handbook. Tata McGraw Hill New Delhi.2004 5<sup>th</sup> edition.
- 14) Official books - Indian Pharmacopoeia, British Pharmacopoeia, United States Pharmacopoeia



*Good*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

### P473 Pharmacology III (Practical)

(3hrs/Week)

- 1) To perform **Bio-assays** antagonists like Atropine, d-tubocurarine using suitable biological preparations\*\*
- 2) To determine **PA2** value of Atropine using suitable isolated tissue preparation. \*\*
- 3) **Minor Experiment**
  1. Measurement of Na<sup>+</sup>, K<sup>+</sup> content of urine by flame photometry\*.
  2. To study Local anesthetic activity\*
  3. To study laxative and anti diarrhoeal effects\*
  4. To study mydriatic and miotic activity\*
  5. To study Anti-inflammatory property of any NSAIDS against Carrageenan-induced acute paw oedema in Rat.
  - 6 To study the various effects of drugs using In-silico model (Effects of drug on B.P) (Ex- Pharm Software, X-cology)\*

#### NOTES:-

##### 1. Minor \* Major\*\*

2.Suitable animal preparation- Any experiment suitable to demonstrate the concept- It could be either in-vivo or in-vitro, The animal selected may be mice, rat, rabbit, guinea pig as admissible as per prevailing Government/CPCSEA guidelines. In case of in-vitro preparations- any tissue preparation from above animals or various tissues from goat may be obtained from slaughter house/ abattoir /butcher shop

Examination Pattern is as follows

Sr. No.	Types of Question	Sessional	University
	Duration	3 Hrs	4 Hrs
1	Synopsis	5	10
2	Viva Voce	5	10
3	Exp. Major	-	30
	Minor	10	20
4	Journal Marks	10	-
	Total Marks	30	70

#### Books Recommended

1. Ghosh M.N. Fundamentals of Experimental pharmacology. Hilton & Company Kolkata 2005 3<sup>rd</sup> edition
2. Vogel G.H. Drug discovery and evaluation. Springer Germany 2002 2<sup>nd</sup> edition
3. Goyal R.K. Practicals in pharmacology. B.S. Shah Prakashan Ahmedabad 2005 5<sup>th</sup> edition
4. Kulkarni S.K. Handbook of Experimental Pharmacology. Vallabh Prakashan. New Delhi, 5<sup>th</sup> edition
5. Perry W. L. M. Pharmacological Experiments on Isolated preparations. E.&S. Livingstone London 1970, 2<sup>nd</sup> edition
6. Kasture S.B. Text book of Experimental Pharmacology, Career Publication Nashik. 1<sup>st</sup> edition, 2006
7. Official books - Indian Pharmacopoeia, British Pharmacopoeia, United States Pharmacopoeia



  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405



- 9) Harvey R.A., Champe P.C. Lippincott's Illustrated Reviews-Pharmacology. Lippincott Williams & Wilkins, Pennsylvania. 2000 2<sup>nd</sup> edition.
- 10) Grahame-Smith D.G. & Aronson J.K. Oxford textbook of clinical Pharmacology and drug therapy . Oxford University press London. 2002 3<sup>rd</sup> edition
- 11) Foster R.W. Basic Pharmacology, Arnold ,New Delhi 2001 ,4<sup>th</sup> edition
- 12) Stahl S.M.. Essential Psychopharmacology Cambridge University Press New Delhi 2003 2<sup>nd</sup> edition
- 13) Dipro J.L. Pharmacotherapy Handbook. Tata McGraw Hill New Delhi.2004 5<sup>th</sup> edition.
- 14) Official books - Indian Pharmacopoeia, British Pharmacopoeia, United States Pharmacopoeia



*Singh*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

# **Activity Report**



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
**H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur**

<b>Name of Activity</b>	<b>Online Quiz on the Occasion of " World Health Day"</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	HRPIPER
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	<b>07 April 2023</b>
<b>Objectives</b>	World Health Day aims to raise awareness about global health issues, promote health equity by addressing disparities, encourage collaboration among stakeholders, and highlight progress in improving health outcomes worldwide
<b>In charge</b>	Ms.H.T.Jadhav ,Mr.M.S.Shaikh
<b>Number of Participant</b>	
<b>Brief Report on activity</b>	<b>World Health Day (WHD)</b> is celebrated on 7 April every year to mark the anniversary of the founding of WHO in 1948. Each year, a theme is selected to highlight a priority area of public health concern in the world. World Health Day aims to raise awareness about global health issues, promote health equity by addressing disparities, encourage collaboration among stakeholders, and highlight progress in improving health outcomes worldwide. Fruitful For Students their General knowledge and examinations like GPAT ,Competitive exam similar like that .



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

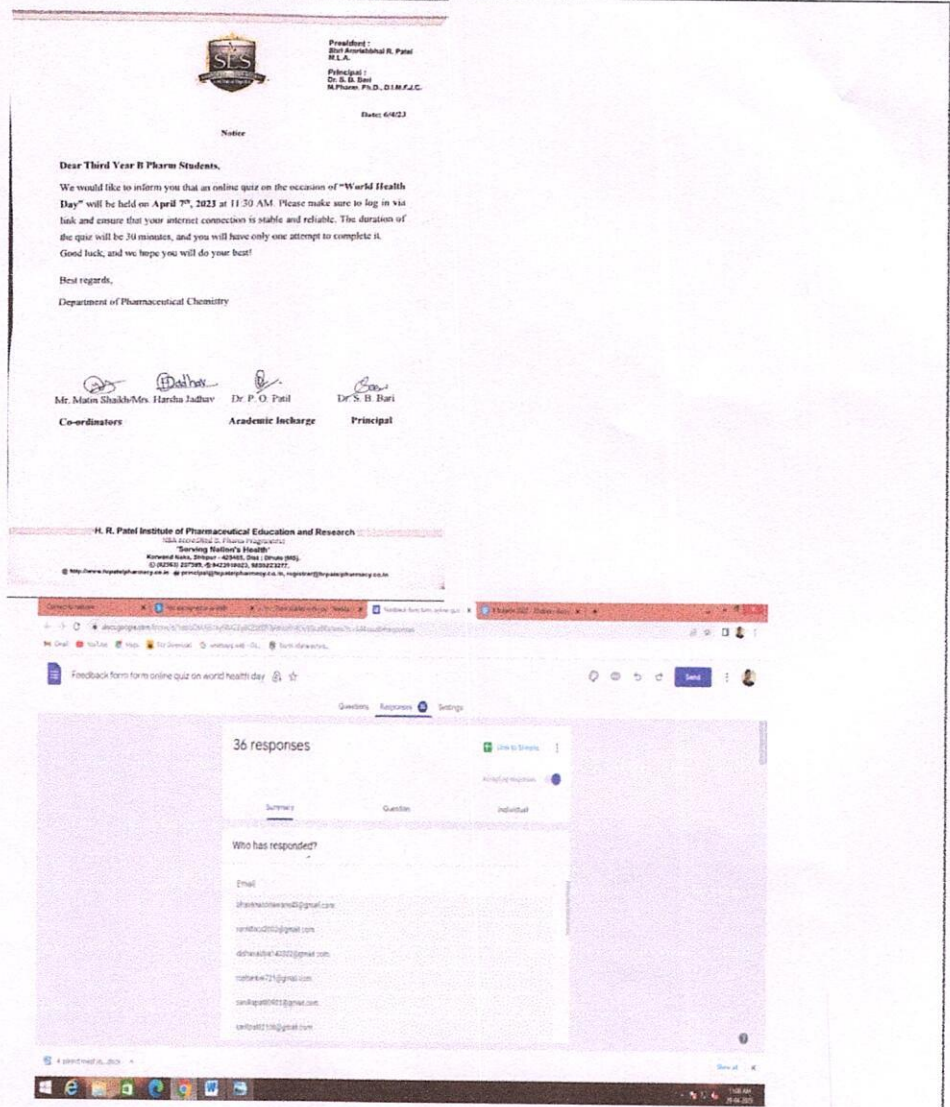
@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

Photograph  
Of activity



Outcome

The online quiz on the occasion of "World Health Day" Was successfully promoted health awareness, education, and engagement among participants. The quiz allowed individuals from different backgrounds to test their knowledge, gain valuable insights, and connect with a community focused on health-related topics. We are confident that the quiz had a positive impact on participants' understanding of health and contributed to the promotion of a healthier society.



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 985023277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
**H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur**

<b>Name of Activity</b>	<b>Blood Donation Camp</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	HRPIPER
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	<b>14 September 2022</b>
<b>Objectives</b>	A blood donation camp's goals are to increase the availability of blood for patients in need, raise awareness of the value of voluntary blood donation, involve the community in a worthwhile cause, offer health screenings to potential donors, find new donors for future donations, and show gratitude and recognition to donors for their significant contributions. While encouraging neighbourhood involvement and a sense of social duty, these camps seek to assure a sufficient and secure blood supply.
<b>In charge</b>	Dr. R. E. Mutha, Dr. S. P. Deshmukh
<b>Number of Participant</b>	77
<b>Brief Report on activity</b>	Blood Donation camp was organized on the occasion of the birthday of Hon. Amrishbhai Patel on 14/09/2022. In this blood donation camp 77 blood donors donated their blood including students and staff. This social activity was organized to inculcate social; responsibility among the students. NSS unit students helped for the smooth conduction of the event.



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).


☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
**Shri Amrishbhai R. Patel**  
**M.L.A.**

**Principal :**  
**Dr. S. B. Bari**  
**M.Pharm. Ph.D., D.I.M.F.J.C.**

<p><b>Photograph Of activity</b></p>	
<p><b>Outcome</b></p>	<p>In this blood donation camp 77 blood donors donated their blood including students and staff.</p>



*Principal*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)

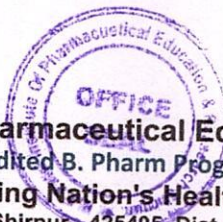


**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur

<b>Name of Activity</b>	<b>Health Camp for Elderly Persons under NSS</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	Kharde, Shirpur
<b>Name of Speaker With contact details</b>	Mohandas Bhamre and Dr. Anil Patil Gaurav
<b>Date of activity</b>	31 January 2022
<b>Objectives</b>	Camp is to provide initial care to people in life-threatening conditions which reflect the unique strengths and goals of medical ethics.
<b>In charge</b>	Dr. Swati Deshmukh and Mr. Sopan Nangare
<b>Number of Participant</b>	35
<b>Brief Report on activity</b>	NSS unit of HRPIPER organized Health camp for elderly patients on 31.01.2022. In this Camp Chief guest Mr. Mohandas Bhamre and Dr. Anil Patil Gaurav Foundation was present with their 20 friends. In this program all guest were felicitated with bouquet. Chief guest Mr. Mohandas Bhamre and Dr. Anil Patil Gaurav Foundation felicitate Dr. S. B. Bari sir for his achievement as Advisor of APTI Nashik division. All guests were given information about Alzheimer disease and diagnostic measures in Nano lab by Mr. Sopan Nangare sir. Blood pressure monitoring, Blood group testing and Body weight of 13 guests were performed by NSS volunteers. Information on diet importance for good health is discussed by Mrs. Swati Deshmukh.



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> @ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
**Shri Amrishbhai R. Patel**  
**M.L.A.**

**Principal :**  
**Dr. S. B. Bari**  
**M.Pharm. Ph.D., D.I.M.F.J.C.**

Photograph  
 Of activity



**Outcome**

Health check camp was done successfully.



*(Signature)*  
**PRINCIPAL**  
 H.R Patel Institute of Pharmaceutical  
 Education & Research  
 Shirpur Dist.Dhule(M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> @ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)





**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur

<b>Name of Activity</b>	<b>Blood Group Detection Camp</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	H. R. Patel Women's Secondary and Higher Secondary School, Shirpur
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	18 December 2021
<b>Objectives</b>	The objective of camp was that everyone should know his/her blood group so that no time is wasted at the time of emergency prior to blood transfusion.
<b>In charge</b>	Dr. Piyush S. Bafna
<b>Number of Participant</b>	244
<b>Brief Report on activity</b>	The Department of Pharmacology at HRPIPER had organized a blood group detection camp at H. R. Patel Women's Secondary and Higher Secondary School, Shirpur on 18.12.2021 on the occasion of "Late Hemantben Patel (Mummiji) Jayanti. The social camp was conducted through guidance by the Principal Dr. S. B. Bari sir and the whole activity was coordinated jointly by Dr. P. S. Bafna (Head of Department) and Mr. R. R. Raghuvanshi (NSS officer) and other supportive staff i.e. Miss N. D. More, Mr. J. H. Patil, Miss. S. G. Chaudhari, Mr. A. S. Jadhav, Mr. N. T. Thakre and Mr. Sunil Bhil with all D. Pharm Volunteers. In the camp a total 244 participant's blood group were detected who are studying in class 9th and 10th and majority of them belong to rural places. The event is honoured by the presence of President R. B. Patil (Principal, H. R. Patel Women's Secondary and Higher Secondary School, Shirpur) and chief guest Dr. P. B. Ninave (Principal, H. R. Institute of Pharmacy).

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist. Dhule (MS).

☎ (02563) 257599, ☎ 9423978023, ☎ 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
**Shri Amrishbhai R. Patel**  
**M.L.A.**

**Principal :**  
**Dr. S. B. Bari**  
**M.Pharm. Ph.D., D.I.M.F.J.C.**

<p style="text-align: center;"><b>Photograph Of activity</b></p>	<div style="display: flex; justify-content: space-around;">   </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"><b>पटेल कन्या विद्यालयात रक्तगट तपासणी</b></p> <p style="text-align: center;"><b>लिपू</b></p> <p>शहरातील एच. आर. पटेल कन्या माध्यमिक व उच्च माध्यमिक विद्यालयात रमेशचे आंतर्गत ६३२ विद्यार्थिनींची रक्तगट व बी.एम. आय. तपासणी करण्यात आली.</p> <p>स्व. हेमनंजन पटेल उर्फ मम्मोची यांच्या जयंतीनिमित्त रक्तगट तपासणी शिबिराचे आयोजन करण्यात आले. या कार्यक्रमाच्या अध्यक्षस्थानी प्राचार्य आर. बी. पाटील होजे, प्रमुख पाहुणे म्हणून डॉ. पी. बी. भिनवे (प्राचार्य, एच. आर. पटेल धर्मसमी महाशिक्षालय शिरपुर), डॉ. पी. एन. बापना, एम. डी. मोरे मंडळ, जे. एच. पाटील, पर्यवेक्षक जे. पी. पाटील उपस्थित होते.</p> <p>कार्यक्रमाचे सुरुवात डॉ. एस.बी. सरस्वती यांच्या प्रिमा पुजनाने करण्यात आली. कार्यक्रमाचे प्रास्ताविक राष्ट्रीय सेवा योजनेचे कार्यक्रमाध्यक्ष डॉ. आर. आर. रघुवंशी यांनी केले. कार्यक्रमाचे प्रास्ताविक डॉ. आर. आर. पाटील यांनी आरोग्यासाठी रक्तगट चाचणीचे महत्त्व पटवून दिले. कोरोना कालावधीत रक्तगट तपासणेची ही एक आवश्यकता आहे.</p> <p>उपस्थित मान्यवरांचे आभार मान्यवरांनी या कार्यक्रमाचे यशस्वीपणे संपन्न केले. या कार्यक्रमाचे यशस्वीपणे संपन्न केले. या कार्यक्रमाचे यशस्वीपणे संपन्न केले.</p> </div>
<p style="text-align: center;"><b>Outcome</b></p>	<p>Students get well practice of blood group detection and become strong bond between teacher and student.</p>



*S.B. Bari*  
**PRINCIPAL**  
 H.R. Patel Institute of Pharmaceutical  
 Education & Research  
 Shirpur Dist. Dhule (M.S.) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

‘Serving Nation’s Health’

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

© (02563) 257599, 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in>    [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
**H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur**

<b>Name of Activity</b>	<b>Blood Group Detection Camp (Kharde)</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	Kharde, Shirpur
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	30 September 2021
<b>Objectives</b>	The objective of camp was that everyone should know his/her blood group so that no time is wasted at the time of emergency prior to blood transfusion.
<b>In charge</b>	Dr. Piyush S. Bafna
<b>Number of Participant</b>	197
<b>Brief Report on activity</b>	Department of Pharmacology at HRPIPER had organized a blood group detection camp at RCP School, Kharde on 30th Sept 2021 from 10.00 am to 5.00 pm on the occasion of memories of late Tapanbhajji Patel. The social camp was conducted through guidance by the Principal Dr. S. B. Bari sir and the whole activity was coordinated jointly by Dr. P. S. Bafna (Head of Department) and Mr. Salunkhe sir. In the camp total 197 participants from class 8th, 9th and 10th were participated and actual checking was performed by expert volunteers of B. Pharm from HRPIPER. The event is graced by the presence of G. B. Gujar (project director of RCP medical foundation), Principal Dr. S. B. Bari (HRPIPER) and Dr. Pradip Salunkhe (RCP, School) and Dr. Manoj Patil. The event is further coordinated by the helping hands of Miss. S. P. Deshmukh, Mr. S. K. Patil, Mr. P. S. Patil, Mr. N. T. Thakare and Mr. S. G. Bhil.



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).



☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> @ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

<p>Photograph Of activity</p>	 
<p>Outcome</p>	<p>Students get well practice of blood group detection and become strong bond between teacher and student.</p>



  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, 📞 9423918023, 9850223277.

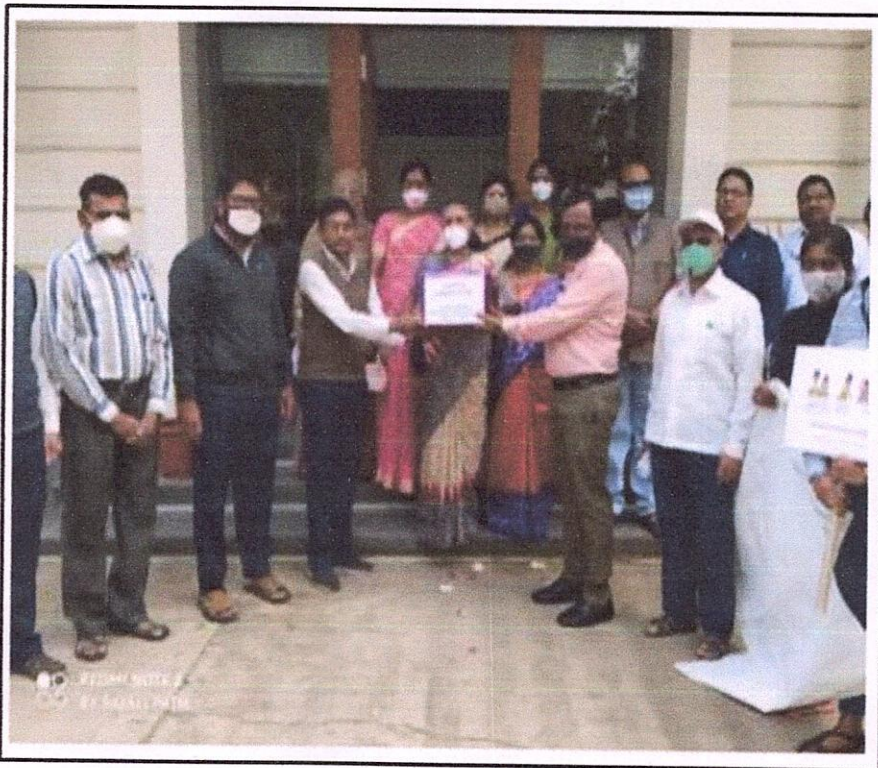
@ <http://www.hrpatelpharmacy.co.in> 📧 [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

Activity report  
Submitted to  
The Principal,  
H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur

Name of Activity	<b>Social Activity: Face Mask Gift to workers of Municipal Corporation, Shirpur on account of New Year 2021</b>
Organizer	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
Venue	Municipal Corporation, Shirpur
Name of Speaker With contact details	-
Date of activity	01st January 2021
Objectives	Participation in Swachhata Rally, Participation in Swachhata Street Play
In charge	Mr. Zamir G. Khan, Mr P. B. Patil
Number of Participant	Faculty-20
Brief Report on activity	Social Activity: Face Mask Gift to for workers of Municipal Corporation, Shirpur on account of New Year 2021. Free mask gifts were handed over to President of Municipal Corporation, Shirpur. At the same time, students performed street play regarding awareness of COVID -19.
Photograph Of activity	

H. R. Patel Institute of Pharmaceutical Education and Research

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist. Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

## स्वच्छता कर्मचाऱ्यांना मास्क वाटप

प्रतिनिधी | शिरपूर

येथील एच. आर. पटेल फार्मसी महाविद्यालयातर्फे नवीन वर्षाच्या स्वागतानिमित्त शिरपूर-वरवाडे नगरपालिकेतील स्वच्छता कर्मचाऱ्यांना फेस मास्क व कृतज्ञता पत्र देण्यात आले.

नगराध्यक्षा जयश्री पटेल, मुख्याधिकारी अमोल वागुल यांच्याकडे महाविद्यालयाचे प्राचार्य डॉ. एस. बी. बारी यांनी मास्क व पत्र सुपुर्द केले. या वेळी नगरसेविका संगीता देवरे, महाविद्यालयाचे शैक्षणिक समन्वयक डॉ. प्रवीण पाटील, नगरपरिषदेचे प्रशासकीय अधिकारी



कर्मचाऱ्यांसाठी नगराध्यक्षा जयश्री पटेल यांच्याकडे मास्क देताना मान्यवर.

संजय हसवाणी, प्रा. प्रशांत पाटील, प्रा. झमीर खान आदी उपस्थित होते. या वेळी महाविद्यालयातील विद्यार्थ्यांनी पथनाट्य सादर करून कोरोनाविषयी जनजागृती केली. कोरोनाचा प्रादुर्भाव रोखण्यासाठी काय करावे याची माहिती देण्यात

आली. नगराध्यक्षा जयश्री पटेल म्हणाल्या की, प्रत्येकाने नियमांचे पालन केले तर कोरोनाचा प्रादुर्भाव रोखता येणे शक्य होणार आहे. त्यामुळे नागरिकांनी घराबाहेर पडताना मास्कचा वापर करावा, असेही त्या म्हणाल्या.

Outcome

Student and faculty members are make awareness about the importance of cleanness, hygienic condition in surrounding to avoid the spread of various kinds of Disease in community,.



  
**PRINCIPAL**  
H.R Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

H. R. Patel Institute of Pharmaceutical Education and Research

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**  
**H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur**

<b>Name of Activity</b>	<b>National Level E-Quiz Competition on Pharmacology</b>
<b>Organizer</b>	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
<b>Venue</b>	HRPIPER
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	21st June 2020
<b>Objectives</b>	Encourage fun learning methods while also enhancing general knowledge. Students can "think outside the box" or from diverse perspectives by participating in quiz tournaments.
<b>In charge</b>	Dr. P. S. Bafna
<b>Number of Participant</b>	60
<b>Brief Report on activity</b>	The National Level E-Quiz competition on Pharmacology subject has been organized by the Pharmacology Department at H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur, Dist. Dhule Maharashtra on 21st June 2020 from 11.00 am to 11.20 am. The quiz had a total of 20 questions. More than 900 participants participated in the quiz from thirteen states of India. Nearly 600 participants qualified the quiz. In the quiz, Mr. Abhishek Awadh Sharma (Government college of pharmacy, Aurngabad) has secured First Rank with a cash prize of 1051 Rs/-. Mr. Rahul Sandip Hire (H.R.Patel Institute of Pharmaceutical Education, Shirpur) has secured Second rank with cash prize of 751 Rs/-.Third rank with cash prize of 551 Rs/- has secured by Mr. Mahendra Ramchandra chougule (Government college of pharmacy, Karad)



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
**Shri Amrishbhai R. Patel**  
**M.L.A.**

**Principal :**  
**Dr. S. B. Bari**  
**M.Pharm. Ph.D., D.I.M.F.J.C.**

<p>Photograph Of activity</p>		
<p>Outcome</p>	<p><b>एचआर पटेल फार्मसीत राष्ट्रीय ई क्विझ स्पर्धा</b> <b>विचारमंथनाचा उद्देश : औरंगाबाद प्रथम</b></p> <p>लोकमत न्यूज नेटवर्क</p> <p>शिर्पुर : येथील एच. आर. पटेल फार्मसी महाविद्यालयात नुकतीच लोकदाउन कॉलेजवरील विद्यार्थ्यांचे विचारमंथन होणाऱ्या उद्देशाने फार्मसीत विषयावर राष्ट्रीय स्तरिय ई - क्विझ स्पर्धा झाली. या स्पर्धेत औरंगाबाद येथील शासकीय औषधनिर्माणशास्त्र महाविद्यालयाचा तुनीय चर्च येथी फार्मसीत अभियंता याने १०० पैकी ९५ गुण मिळवत १००% रुपयांच्या प्रथम पारितोषिकाचा मानकरी झाला. ७५% रुपयांचे द्वितीय १०० पैकी ९० गुण मिळवत एच. आर. पटेल फार्मसी महाविद्यालयाचा चतुर्थ वर्ष येथी फार्मसीचा राहुल हिरे याने बरोबरीला, कागड येथील शासकीय औषधनिर्माणशास्त्र महाविद्यालयाचा चतुर्थ वर्ष येथी फार्मसीचा महेंद्र चौतुले १०० पैकी ८५ गुण मिळवत ५५% रुपयांच्या तृतीय पारितोषिकाचा मानकरी झाला. त्यात महाराष्ट्रासह उत्तर प्रदेश, गुजरात, छत्तीसगढ, मध्य प्रदेश, आंध्र प्रदेश, तामिळनाडू, हरियाणा, पंजाब, हिमाचल प्रदेश, उत्तराखंड, कर्नाटक, राजस्थान या राज्यातील डी. फार्मसी, बी. फार्मसी व एम. फार्मसीच्या १३४ विद्यार्थ्यांनी सहभाग नोंदवला व त्यात ६२० विद्यार्थी हि क्विझ स्पर्धेत उत्तीर्ण झाले. ई - क्विझ स्पर्धेत सहभाग्यक भणुनू प्रा. पीपुष यांच्या यांनी कस पाहिले. आयोगाबाबत संस्थाध्यक्ष राजगोपाल भंडारी, नगराध्यक्ष जयश्री पटेल, कार्याध्यक्ष तथा उपनगराध्यक्ष भूपेश पटेल, उपाध्यक्ष राजगोपाल भंडारी, नगरसेवक तथा उपनगराध्यक्ष अशोक डी. के. वी. पाटील, सर्व संस्थाध्यक्ष, प्राचार्य डॉ. एस. बी. वारी यांनी समाधान व्यक्त केले.</p> <p><b>पटेल फार्मसीत राष्ट्रीयस्तरीय ई-क्विझ स्पर्धा</b></p> <p>शिर्पुर : येथील एच. आर. पटेल फार्मसी महाविद्यालयात नुकतीच लोकदाउन कॉलेजवरील विद्यार्थ्यांचे विचारमंथन होणाऱ्या उद्देशाने 'फार्मसीत'ची या विषयावर राष्ट्रीय स्तरिय ई - क्विझ स्पर्धा झाली. या स्पर्धेत औरंगाबाद येथील शासकीय औषधनिर्माणशास्त्र महाविद्यालयाचा तुनीय चर्च येथी फार्मसीचा राहुल हिरे याने बरोबरीला, कागड येथील शासकीय औषधनिर्माणशास्त्र महाविद्यालयाचा चतुर्थ वर्ष येथी फार्मसीचा महेंद्र चौतुले १०० पैकी ८५ गुण मिळवत ५५% रुपयांच्या तृतीय पारितोषिकाचा मानकरी झाला. त्यात महाराष्ट्रासह उत्तर प्रदेश, गुजरात, छत्तीसगढ, मध्य प्रदेश, आंध्र प्रदेश, तामिळनाडू, हरियाणा, पंजाब, हिमाचल प्रदेश, उत्तराखंड, कर्नाटक, राजस्थान या राज्यातील डी. फार्मसी, बी. फार्मसी व एम. फार्मसीच्या १३४ विद्यार्थ्यांनी सहभाग नोंदवला व त्यात ६२० विद्यार्थी हि क्विझ स्पर्धेत उत्तीर्ण झाले. ई - क्विझ स्पर्धेत सहभाग्यक भणुनू प्रा. पीपुष यांच्या यांनी कस पाहिले. आयोगाबाबत संस्थाध्यक्ष राजगोपाल भंडारी, नगराध्यक्ष जयश्री पटेल, कार्याध्यक्ष तथा उपनगराध्यक्ष भूपेश पटेल, उपाध्यक्ष राजगोपाल भंडारी, नगरसेवक तथा उपनगराध्यक्ष अशोक डी. के. वी. पाटील, सर्व संस्थाध्यक्ष, प्राचार्य डॉ. एस. बी. वारी यांनी समाधान व्यक्त केले.</p>	



*Seal*  
**PRINCIPAL**  
H.R. Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist. Dhule (M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**  
NBA accredited B. Pharm Programme

'Serving Nation's Health'  
Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).  
☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



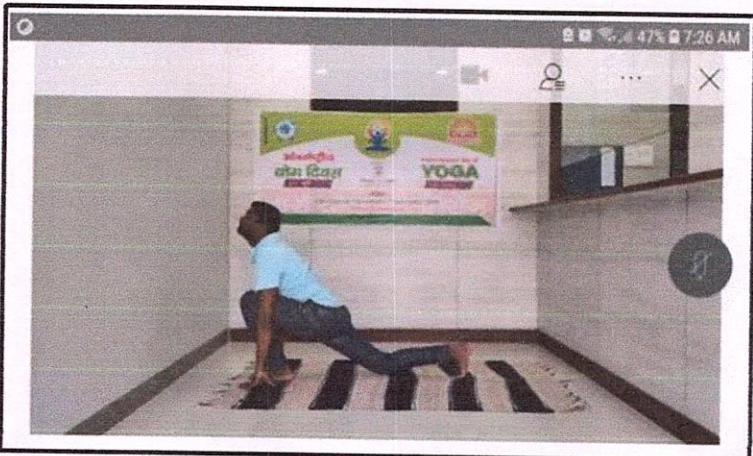


President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

Activity report  
Submitted to  
The Principal,

H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur

Name of Activity	<b>International Yoga Day: Online Zoom</b>
Organizer	H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur
Venue	HRPIPER
Name of Speaker With contact details	-
Date of activity	21st June 2020
Objectives	integrating the body, mind, and thoughts so as to work for good ends. Modern life style leads to diseases, which are mostly due to poor food habits, heavy daily routines and to air and water pollution in turn easily affect the human body.
In charge	Mr. Y. B. Thakur, Mr. Z. G. Khan
Number of Participant	Faculty & Students: 150
Brief Report on activity	Teaching, non-teaching staff and students were participated online via Zoom App enthusiastically for this programme in huge number. Initially Sports Director Mr. Y. B. Thakur introduced yoga to all participants. Student Development Officer Prof. Z. G. Khan delivered vote of thanks.
Photograph Of activity	
Outcome	Through this programme, teachers and students build strong and healthy life.

H. R. Patel Institute of Pharmaceutical Education and Research

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, 📞 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



President :  
Shri Amrishbhai R. Patel  
M.L.A.

Principal :  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

Activity report  
Submitted to  
The Principal,  
H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur

Name of Activity	<b>AIDS Day Rally</b>
Organizer	H. R. Patel Institute of pharmaceutical Education and Research Shirpur.
Venue	HRPIPER, Shirpur
Name of Speaker With contact details	-
Date of activity	01st December 2019
Objectives	Improve treatment, care and support for people living with AIDS in hospitals, clinics and by doctors. Increase access to affordable medicines and treatment.
In charge	Mr. Z. G. Khan
Number of Participant	Students and faculty -200
Brief Report on activity	Organized rally on account of World AIDS Day, designated on 1st December every year. AIDS Day is an international day dedicated to raising awareness of the AIDS pandemic caused by the spread of HIV infection. Rally is organized in collaboration with sub district hospital, Cottage hospital Shirpur.
Photograph Of activity	
Outcome	Awareness about AIDS will be increased.



  
**PRINCIPAL**  
H.R Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

'Serving Nation's Health'

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

**Activity report**  
Submitted to  
**The Principal,**

**H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur**

<b>Name of Activity</b>	<b>International Yoga Day</b>
<b>Organizer</b>	H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur
<b>Venue</b>	HRPIPER, Shirpur
<b>Name of Speaker With contact details</b>	-
<b>Date of activity</b>	21st June 2019
<b>Objectives</b>	integrating the body, mind, and thoughts so as to work for good ends. Modern life style leads to diseases, which are mostly due to poor food habits, heavy daily routines and to air and water pollution in turn easily affect the human body.
<b>In charge</b>	Dr. Z. G. Khan
<b>Number of Participant</b>	Faculty & Students: 600
<b>Brief Report on activity</b>	HRPIPER, Shirpur celebrated the International Yoga Day on 21st June 2019 on the college ground. During the same, yoga teachers demonstrated different yoga steps and delivered the talk so as to understand the importance of yoga in daily life. Teaching, non-teaching staff and students (total 85) were participated enthusiastically for this programme in huge number. Initially Sports Director Mr. Y. B. Thakur introduced yoga to all participants. Student Development Officer Prof. Z. G. Khan delivered vote of thanks. This programme was conducted under the guidance of our Principal Dr. S. B. Bari.



**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> ✉ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)



**President :**  
Shri Amrishbhai R. Patel  
M.L.A.

**Principal :**  
Dr. S. B. Bari  
M.Pharm. Ph.D., D.I.M.F.J.C.

Photograph  
Of activity



Outcome

Through this programme, teachers and students build strong and healthy life.



  
**PRINCIPAL**  
H.R Patel Institute of Pharmaceutical  
Education & Research  
Shirpur Dist.Dhule(M.S) 425 405

**H. R. Patel Institute of Pharmaceutical Education and Research**

NBA accredited B. Pharm Programme

**'Serving Nation's Health'**

Karwand Naka, Shirpur - 425405, Dist : Dhule (MS).

☎ (02563) 257599, ☎ 9423918023, 9850223277.

@ <http://www.hrpatelpharmacy.co.in> @ [principal@hrpatelpharmacy.co.in](mailto:principal@hrpatelpharmacy.co.in), [registrar@hrpatelpharmacy.co.in](mailto:registrar@hrpatelpharmacy.co.in)