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PRESENTS

## DRUG INSPECTOR YOUR CAREER



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## **DRUG INSPECTOR**

Drugs are medications provided to patients struggling from various ailments. Drug inspectors are qualified personnel's who work in the manufacturing and distribution sector of drugs. These professionals grade diverse products using their technical and intellectual ability. It is the prime responsibility of a drug inspector to inspect whether the medicines maintain legal standards of sanitation, limpidness, and grading. These professionals visit various pharmacies, laboratories and drug-manufacturing stores to check the quality of the products manufactured and sold there.

### **How to become Drug Inspector after B.Pharm**

#### **Qualifying Exam**

To become a drug inspector, an individual should have completed graduation in Pharmacy, Pharmaceutical Sciences. Otherwise, they should be graduates in medicine with Clinical Pharmacology or Microbiology specialization. In addition, they are required to have minimum of **18 months** experience in the manufacturing field. They can get into the post of Drug Inspector based on their performance in written test, viva voce. The recruitment to the position of Drug Inspector is conducted by UPSC and also various state PSCs time to time.

#### **Qualification Required**

Aspirants should hold a Bachelor's degree in Pharmacy or its related subjects from any PCI recognized University.

- One should have a minimum of **18 months** experience in the manufacturing field.
- The age limit of the applicants must be between 21 years and 35-40 years. Relaxation of 5 years is allowed for reserved category candidates.
- Applicants should be Indian citizens.

#### **When the Drug Inspector written test is conducted ?**

- The examination date and month vary for different PCS. So, to get information you can also visit the official website of PCS.
- The examination is conducted once in a year and it's also depends upon the vacant seat in that state. Candidate passed bachelor degree in B.Pharma are eligible to appear for examination. Candidate have to qualify in written and interview stage for final selection for job.

## Selection Procedure

The first round of selection will be a written test. The next round will be Viva Voce but in some state viva voce it is not necessary.

The exact pattern and syllabus of the exam will vary as per the authority which conducts the exam. The written test will comprise of objective type questions. Multiple choices will be given in most of the exams. There may be negative marking for wrong responses. There will be two papers. One paper will be subject oriented and the other will be based on general knowledge and general Science.

## How to prepare for Drug Inspector exam and interview?

Aspirants are required to have thorough awareness in the qualifying course technical subjects so as to clear the test. They can procure latest editions of technical books from leading bookstores for reference, you can also use the GPAT Discussion Center , Easy to Learn Study material for best Results(Visit: [www.gdc4gpat.com](http://www.gdc4gpat.com), [www.gdconlinetest.in](http://www.gdconlinetest.in) . As part of preparation for the mains, they can also solve previous papers. It may help them in gaining confidence in the main exam. Self-evaluation is a must so as to know their weaker areas.

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**Questions can be expected from the following topics.**

### **1. PHARMACOLOGY:-**

- General pharmacology
- Pharmacology of Autonomic System
- Pharmacology of peripheral nervous system
- Pharmacology of central nervous System
- Pharmacology of cardiovascular system
- Drugs acting on urinary system
- Drugs acting on Respiratory system
- Pharmacology of Endocrine system
- Chemotherapy
- Autacoids and their Antagonists
- Pharmacology of drug acting on the gastrointestinal tract
- Chemotherapy of Malignant diseases
- Immnopharmacology

## **2. PHARMACOGNOSY:-**

- Introductory Pharmacognosy
- Classification of crude drugs
- Sources of crude drugs
- Factors influencing quality of crude drugs
- Introduction to phytoconstituents
- Techniques in microscopy
- Principles of plant classification
- Pharmaceutical aids
- Animal & plant products
- Adulteration and evaluation of crude drugs
- Quantitative microscopy
- Tannins , Volatile oil & Resinous drug
- Glycosides & Alkaloids
- Plant Biotechnology

## **3. PHARMACEUTICAL ANALYSIS:-**

- Acid-base titrations
- Non-aqueous titrations
- Oxidation- reduction titrations
- Precipitation & Complexometric titrations
- Gravimetry
- Extraction techniques
- Potentiometry & Calibration
- General principles of spectroscopy
- Ultraviolet-visible Spectrometry
- Spectrofluorimetry
- Flame photometry & atomic absorption spectrometry
- Infrared spectrometry
- Proton nuclear magnetic resonance spectrometry
- Mass spectrometry
- Polarography, Nephelometry & Turbidimetry
- Chromatography

## **4. PHARMACEUTICS:-**

### **PHARMA TECHNOLOGY**

- Introduction to Pharmaceuticals
- Introduction to dosage form
- Route of administration & ADME
- Powders , Tablet & Capsule
- Parenterals - product requiring sterile packaging
- Emulsions & Suspension
- Suppositories , Semisolid and Liquid dosage form
- Pharmaceutical Aerosols
- Ophthalmic preparations
- Kinetic Principles and Stability Testing
- Novel Drug delivery system
- Packaging Materials

- Blood Fluid and Electrolytes
- Biological Preparation
- Limit Test
- Sterility Test
- Vaccine Preparation

#### **BIOPHARMACEUTICS AND PHARMACOKINETICS:-**

- Introduction to Bio-pharmaceutics
- Bio-availability & Bio-equivalence
- Bio- pharmaceutical statistics

#### **PHYSICAL PHARMACY:-**

- Matter, properties of matter
- Micromeritics and powder rheology
- Surface and interfacial phenomenon
- Viscosity and rheology
- Dispersion systems
- Complexation
- Buffer & Solubility

#### **PHARMACEUTICAL ENGINEERING:-**

- Fluid flow & Heat transfer
- Evaporation , Distillation & Drying
- Size reduction and size separation
- Extraction , Mixing & Crystallization
- Dehumidification and humidity control

#### **COSMETIC TECHNOLOGY**

#### **PHARMACEUTICAL JURISPRUDENCE**

- Drug and Cosmetics Act
- Pharmacy Act, 1948
- Medical termination of pregnancy Act, 1971
- Drugs and Magic Remedy Act, 1954
- Prevention of Cruelty to Animal Act
- Pharmaceutical Ethics
- Drug price Control Order, 1995
- Poison Act, 1919 and Dangerous Drugs Act, 1930
- Medical and Toilet preparation Act, 1955
- Trade Mark Registration Act

#### **DISPENSING & HOSPITAL PHARMACY**

#### **5. MEDICINAL CHEMISTRY**

- Chemistry of Autonomic System
- Chemistry of peripheral nervous system
- Chemistry of central nervous System

- Chemistry of cardiovascular system
- Chemistry of Drugs acting on urinary system
- Chemistry of Drugs acting on Respiratory system
- Chemistry of Endocrine system
- Chemistry of Chemotherapy
- Chemistry of Autacoids and their Antagonists
- Chemistry of drug acting on the gastrointestinal tract

#### 6. **BIOCHEMISTRY:-**

- Cell
- Carbohydrates , Proteins ,Lipids & Vitamins
- Biological oxidations & reductions
- Enzymes & Nucleic acids

#### 7. **MICROBIOLOGY:-**

- Introduction to Microbiology
- Microscopy and staining technique
- Biology of Microorganisms
- Fungi and Viruses
- Sterilization & Disinfection
- Vaccines & Sera
- Immunology and health
- Microbial Assay

#### 8. **BIOTECHNOLOGY**

- Plant Cell and Tissue Culture
- Animal Cell Culture
- Fermentation Technology and Industrial Microbiology
- Recombinant DNA Technology
- Process and Applications
- Biotechnology Derived Products
- Proteomics
- Formulation of Proteins and Peptides

**In viva voce one can expect questions from the core subjects covered in their graduation level course.**

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# **THE DRUGS AND COSMETICS ACT, 1940**

**An Act to regulate the import, manufacture, distribution and sale of drugs and cosmetics.**

## **WHAT IS DRUG INSPECTOR ???**

**"Inspector" means—**

- (i) In relation to Ayurvedic, Siddha or Unani drug, an Inspector appointed by the Central Government or a State Government under section 33G; and
- (ii) In relation to any other drug or cosmetic, an Inspector appointed by the Central Government or a State Government under Section 21.

### **Section 21. Inspectors. -**

**(1)** The Central Government or a State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications, to be Inspectors for such areas as may be assigned to them by the Central Government or the State Government, as the case may be.

**(2)** The powers which may be exercised by an Inspector and the duties which may be performed by him, the drugs or classes of drugs or cosmetics or classes of cosmetics in relation to which and the conditions, limitations or restrictions subject to which, such powers and duties may be exercised or performed shall be such as may be prescribed.

**(3)** No person who has any financial interest in the import, manufacture or sale of drugs or cosmetics shall be appointed to be an Inspector under this section.

**(4)** Every Inspector shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code, and shall be officially subordinate to such authority having the prescribed qualifications, as the Government appointing him may specify in this behalf.

### **Section 22. Powers of Inspectors. -**

**(1)** Subject to the provisions of section 23 and of any rules made by the Central Government in this behalf, an Inspector may, within the local limits of the area for which he is appointed, -

#### **(a) inspect -**

(i) any premises wherein any drug or cosmetic is being manufactured and the means employed for stand arising and testing the drug or cosmetic;

(ii) any premises wherein any drug or cosmetic is being sold, or stocked or exhibited or offered for sale, or distributed; 18

#### **(b) take samples of any drug or cosmetic, -**

(i) which is being manufactured or being sold or is stocked or exhibited or offered for sale, or is being distributed ;

(ii) from any person who is in the course of conveying, delivering or preparing to deliver such drug or cosmetic to a purchaser or a consignee;

**(c) at all reasonable times, with such assistance, if any, as he considers necessary, -**

(i) search any person, who, he has reason to believe, has secreted about his person, any drug or cosmetic in respect of which an offence under this Chapter has been, or is being, committed; or

(ii) enter and search any place in which he has reason to believe that an offence under this Chapter has been, or is being, committed; or

(iii) stop and search any vehicle, vessel or other conveyance which, he has reason to believe, is being used for carrying any drug or cosmetic in respect of which an offence under this Chapter has been, or is being, committed, and order in writing the person in possession of the drug or cosmetic in respect of which the offence has been, or is being, committed, not to dispose of any stock of such drug or cosmetic for a specified period not exceeding twenty days, or, unless the alleged offence is such that the defect may be removed by the possessor of the drug or cosmetic, seize the stock of such drug or cosmetic and any substance or article by means of which the offence has been, or is being committed or which may be employed for the commission of such offence ;

(cc) examine any record, register, document or any other material object found with any person, or in any place, vehicle, vessel or other conveyance referred to in clause (c), and seize the same if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder;

(cca) require any person to produce any record, register, or other document relating to the manufacture for sale or for distribution, stocking, exhibition for sale, offer for sale or distribution of any drug or cosmetic in respect of which he has reason to believe that an offence under this Chapter has been, or is being, or is being, committed;

**(d)** exercise such other powers as may be necessary for carrying out the purposes of this Chapter or any rules made there under.

**(2)** The provisions of the Code of Criminal Procedure, 1973 (2 of 1974), shall, so far as may be, apply to any search or seizure under this Chapter as they apply to any search or seizure made under the authority of a warrant issued under section 94 of the said Code. 19 (2A) Every record, register or other document seized under clause (cc) or produced under clause (cca) shall be returned to the person, from whom they were seized or who produce the same, within a period of twenty days of the date of such seizure or production, as the case may be, after copies thereof or extracts therefrom certified by that person, in such manner as may be prescribed, have been taken.

**(3)** If any person willfully obstructs an Inspector in the exercise of the powers conferred upon him by or under this Chapter or refuses to produce any record, register or other document when so required under clause (cca) of sub-section (1), he shall be punishable with imprisonment which may extend to three years, or with fine, or with both.

**Section 23. Procedure of Inspectors. -**



**(1)** Where an Inspector takes any sample of a drug or cosmetic under this Chapter, he shall tender the fair price thereof and may require a written acknowledgement therefor.

**(2)** Where the price tendered under sub-section (1) is refused, or where the Inspector seizes the stock of any drug or cosmetic under clause (c) of section 22, he shall tender a receipt therefore in the prescribed form.

**(3)** Where an Inspector takes a sample of a drug or cosmetic for the purpose of test or analysis, he shall intimate such purpose in writing in the prescribed form to the person from whom he takes it and, in the presence of such person unless he willfully absents himself, shall divide the sample into four portions and effectively seal and suitably mark the same and permit such person to add his own seal and mark to all or any of the portions so sealed and marked: Provided that where the sample is taken from premises whereon the or cosmetic is being manufactured, it shall be necessary to divide the sample into three portions only: Provided further that where the drug or cosmetic is made up in containers of small volume, instead of dividing a sample as aforesaid, the Inspector may, and if the drug or cosmetic be such that it is likely to deteriorate or be otherwise damaged by exposure shall, take three or four, as the case may be, of the said containers after suitably marking the same and, where necessary sealing them.

**(4)** The Inspector shall restore one portion of a sample so divided or one container, as the case may be, to the person from whom he takes it, and shall retain the remainder and dispose of the same as follows:-

(i) one portion or container he shall forthwith send to the Government Analyst for test or analysis;

(ii) the second he shall produce to the Court before which proceedings, if any, are instituted in respect of the or cosmetic; and 20

(iii) the third, where taken, he shall send to the person, if any, whose name, address and other particulars have been disclosed under section 18-A.

**(5)** Where an Inspector takes any action under clause (c) of section 22, -

(a) he shall use all dispatch in ascertaining whether or not the drug or cosmetic contravenes any of the provisions of section 18 and, if it is ascertained that the drug or cosmetic does not so contravene, forthwith revoke the order passed under the said clause or, as the case may be, taken such action as may be necessary for the return of the stockseized;

(b) if he seizes the stock of the drug or cosmetic, he shall as soon as may be inform a Judicial Magistrate and take his orders as to the custody thereof;

(c) without prejudice to the institution of any prosecution, if the alleged contravention be such that the defect may be remedied by the possessor of the or cosmetic, he shall, on being satisfied that the defect has been so remedied, forthwith revoke his order under the said clause.

**(6)** Where an Inspector seizes any record, register, document or any other material object under clause (cc) of sub-section (1) of section 22, he shall, as soon as may be, inform a Judicial Magistrate and take his orders as to the custody thereof.

### **Section 33-G. Inspectors. –**

(1) The Central Government or a State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications, to be Inspectors for such areas as may be assigned to them by the Central Government or the State Government as the case may be.

(2) The powers which may be exercised by an Inspector and the duties which may be performed by him and the conditions, limitations or restrictions subject to which such powers and duties may be exercised or performed shall be such as may be prescribed.

(3) No person who has any financial interest in the manufacture or sale of any drug shall be appointed to be an Inspector under this section.

(4) Every Inspector shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code and shall be officially sub-ordinate to such authority as the Central Government appointing him may specify in this behalf.

### **Section 33-N. Power of Central Government to make rules. –**

(1) The Central Government may, after consultation with, or on the recommendation of, the Board and after previous publication by notification in the Official Gazette, make rules for the purpose of giving effect to the provisions of this Chapter : Provided that consultation with the Board may be dispensed with if the Central Government is of opinion that circumstances have arisen which render it necessary to make rules without such consultation, but in such case, the Board shall be consulted within six months of the making of the rules and the Central Government shall take into consideration any suggestions which the Board may make in relation to the amendment of the said rules.

(2) Without prejudice to the generality of the foregoing power, such rules may –

(a) Provide for the establishment of laboratories for testing and analysing Ayurvedic, Siddha or Unani drugs;

(b) Prescribe the qualifications and duties of Government Analysts and the qualifications of Inspectors;

(c) Prescribe the methods of test or analysis to be employed in determining whether any Ayurvedic, Siddha or Unani drug is labeled with the true list of the ingredients which it is purported to contain;

(d) Specify any substance as a poisonous substance;

(e) Prescribe the forms of licences for the manufacture for sale of Ayurvedic, Siddha or Unani drug and for sale of processed Ayurvedic, Siddha or Unani drugs, the form of application for such licences, the conditions subject to which such licences may be issued, the authority empowered to issue the same and the fees payable therefore, and provide for the cancellation or suspension of such licences in any case where any provision of this Chapter or rules made there under is contravened or any of the conditions subject to which they are issued is not complied with;

(f) Prescribe the conditions to be observed in the packing of Ayurvedic, Siddha and Unani drugs including the use of packing material which comes into direct contact with the drugs, regulate the mode of labeling packed drugs and prescribe the matters which shall or shall not be included in such labels;

(g) Prescribe the conditions subject to which small quantities of Ayurvedic, Siddha or Unani] drugs may be manufactured for the purpose of examination, test or analysis; 37

(gg) Prescribe under clause (d) of section 33-EE the colour or colours which an Ayurvedic, Siddha or Unani drug may bear or contain for purposes of colouring;

(gga) Prescribe the standards for Ayurvedic, Siddha or Unani drugs under section 33-EB;

(h) Any other matter which is to be or may be prescribed under this Chapter IV A of D & C Act,1940.

## **THE DRUGS AND COSMETICS RULES, 1945**

### **Rule 49. Qualifications of Inspectors.**

A person who is appointed an Inspector under the Act shall be a person who has a degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a University established in India by law:

Provided that only those Inspectors—

(i) who have not less than 18 months' experience in the manufacture of at least one of the substances specified in Schedule C, or

(ii) who have not less than 18 months' experience in testing of at least one of the substances in Schedule C in a laboratory approved for this purpose by the licensing authority, or

(iii) who have gained experience of not less than three years in the inspection of firm manufacturing any of the substances specified in Schedule C during the tenure of their services as Drugs Inspectors; shall be authorised to inspect the manufacture of the substances mentioned in Schedule C;]

[Provided further that the requirement as to the academic qualification shall not apply to persons appointed as Inspectors on or before the 18th day of October, 1993.]

### **Rule 51. Duties of Inspectors of premises licensed for sale**

Subject to the instructions of the controlling authority, it shall be the duty of an Inspector authorized to inspect premises licensed for the sale of drugs—

(1) to inspect 1 [not less than once a year] all establishments licensed for the sale of drugs within the area assigned to him;

(2) to satisfy himself that the conditions of the licences are being observed;

(3) to procure and send for test or analysis, if necessary, imported packages which he has reason to suspect contain drugs being sold or stocked or exhibited for sale in contravention of the provisions of the Act or rules thereunder;

(4) to investigate any complaint in writing which may be made to him;

(5) to institute prosecutions in respect of breaches of the Act and rules thereunder;

(6) to maintain a record of all inspections made and action taken by him in the performance of his duties, including the taking of samples and the seizure of stocks, and to submit copies of such record to the controlling authority;

(7) to make such enquiries and inspections as may be necessary to detect the sale of drugs in contravention of the Act;

(8) when so authorized by the State Government, to detain imported packages which he has reason to suspect contain drugs, the import of which is prohibited.

**Rule 52. Duties of inspectors specially authorised to inspect the manufacture of [drugs or cosmetics].**

Subject to the instructions of the controlling authority it shall be the duty of an Inspector authorized to inspect the manufacture of drugs—

(1) to inspect not less than once a year, all premises licensed for manufacture of drugs or cosmetics within the area allotted to him to satisfy himself that the conditions of the licence and provisions of the Act and Rules there under are being observed;

(2) in the case of establishments licensed to manufacture products specified in Schedules C and C (1) to inspect the plant and the process of manufacture, the means employed for standardizing and testing the drug, the methods and place of storage, the technical qualifications of the staff employed and all details of location, construction and administration of the establishment likely to affect the potency or purity of the product;

(3) to send forthwith to the controlling authority after each inspection a detailed report indicating the conditions of the licence and provisions of the Act and rules thereunder which are being observed and the conditions and provisions, if any, which are not being observed;

(4) to take samples of the drugs manufactured on the premises and send them for test or analysis in accordance with these Rules;

(5) to institute prosecutions in respect of breaches of the Act and rules there under.

## Inspectors For Ayurvedic(Including Siddha) or Unani Drugs

### Rule 162. Duties of inspectors specially authorised to inspect the manufacture of Ayurvedic (including Siddha) or Unani drugs

Subject to the instructions of the controlling authority, it shall be the duty of an Inspector authorised to inspect the manufacture of Ayurvedic (including Siddha) or Unani drugs—

- (i) to inspect not less than twice a year, all premises licensed for manufacture of Ayurvedic (including Siddha) or Unani drugs within the area allotted to him and to satisfy himself that the conditions of the licence and the provisions of the Act and the rules made thereunder are being observed;
- (ii) to send forthwith to the controlling authority after each inspection a detailed report indicating whether or not the conditions of the licence and the provisions of the Act and the rules made thereunder are being observed;
- (iii) to take samples of the drugs manufactured on the premises and send them for test or analysis in accordance with these rules;
- (iv) to institute prosecution in respect of violation of the Act and the rules made thereunder.

### Rule 167. Qualifications of Inspector.

A person who is appointed an Inspector under section 33G shall be a person who

- (a) has the qualifications laid down under rule 49 and shall have undergone practical training in the manufacture of Ayurvedic (including Siddha) or Unani drug, as the case may be; or
- (b) has a degree in Ayurvedic or Siddha or Unani system or a degree in Ayurveda Pharmacy, as the case may be, conferred by a University or a State Government or a Statutory Faculty, Council or Board of Indian Systems of Medicine recognised by the Central Government or the State Government for this purpose; or
- (c) has a diploma in Ayurveda, Siddha or Unani Systems, as the case may be, granted by a State Government or an Institution recognised by the Central Government or a State Government for this.

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## STUDY MATERIAL

**Table - 1 Main acts of pharmaceutical jurisprudence**

Acts	Passed	Rule	Came in force	Amendments/Replacement
Drug Price Control Order	1995	-----	6 Jan 1995	2013
Pharmacy Act	1948	-----	4 Mar 1949	1976, 1959, 1981
Minimum Wages Act	1948	-----	15 Mar 1948	1954, 1957, 1961
Factories Act	1948	-----	1 April 1949	1950, 1951, 1954, 1976
Drug and Magic Remedies	1954	1955	1 April 1955	1963
Medicinal & Toilet Preparation Act	1955	1956	1 April 1957	
Drug and Cosmetic Act	1940	1945	10 April 1940	1982, 1988
Patent Act	1970	20/5/13	20 April 1972	1995, 1999, 2002, 2005
Industries Act	1952	-----	8 May 1952	
Design Act	1911	2001	11 May 2001	1933
Medical Termination & Pregnancy Act	1971	1975	10 Aug 1971	
Poison Act	1919	-----	3 Sep 1919	1904
Insecticide Act	1968	-----	2 Nov 1968	
Narcotic Drug and Psychotics Subs.	1985	-----	14 Nov 1985	1857, 1878, 1930
Trade and Merchandise Act	1958	25/11/59	25 Nov 1959	1940, 1889
<b>Other Acts</b>				
Act	Passed	Rule	Came in force	Amendments/Replace
AICTE	1988	1994	28 Mar 1988	
Prevention of Food Adulteration	1954	1955		
Prevention of Cruelty to Animal	1960	-----	26 Dec 1960	
Payment of Wages Act	1936	-----		

**Table - 2 Different acts and sections**

Acts	Chapters	Sections
Pharmacy act	5	46
Drug and Cosmetic Act	5	38
Narcotic Drug and Psychotics Subs.	6	83
Drug Price Control Order		32
Medicinal & Toilet Preparation Act	9	143
Patent Act	23	163
Factories Act	11	120
Trade and Merchandise Act	11	136
Industries Act	6	31
Medical Termination & Pregnancy Act		8

Insecticide Act		38
Minimum Wages Act		31

**Table - 3 Offences and Penalties of different acts**

S.No.	Offence	First conviction	Second conviction
<b>I.</b>	<b>Pharmacy Act</b>		
1.	Penalty for falsely claiming to be registered pharmacist	6M /500	
2.	Dispensing by unregistered persons	6M /1000	
3.	Falling to surrender certificate of registration	50	
<b>II.</b>	<b>Drugs and Cosmetics Act and Rules</b>		
<b>A.</b>	<b>Manufacture and sale of drugs</b>		
1.	Any adulterated or spurious drug	5Y/ 10000	10Y /20000
2.	Adulterated drug but not containing toxic substances	1-3Y/5000	2-4Y/ 10000
3.	Without licence	-----,,-----	-----,,-----
4.	Spurious drugs but not manufactured under the name of any other drug	3-5Y/ 5000	6-10Y/10000
5.	Any other contravention of this act	1-2Y /fine	2-4Y/ 5000
6.	Not disclosing name of manufacture or place of manufacture	3 Y/ 1000	
7.	Not keeping records of manufacture or sale of drugs	-----,,----- -	
8.	Using report of Government Analyst for advertising drug	500	10 Y
<b>B.</b>	<b>Manufacture and sale of Cosmetics</b>		
1.	Any adulterated or spurious cosmetic	3 Y	
2.	Any other contravention of this act	1 Y/ 1000	
3.	Not disclosing name of manufacture or place of manufacture	-----,,----- -	
4.	Not keeping records of manufacture or sale of drugs	3 Y/ 5000	
<b>III.</b>	<b>Narcotic Drugs and Psychotropic Substances Act and Rules</b>		
<b>1.</b>	<b>In relation to poppy plant (Opium)-transport, sale , purchase, import, export</b>		
	Where contravention involves small quantity	6 M/10000	
	Lesser than commercial quantity but greater than small q.	10 Y/1 lakh	
	Commercial quantity	10-20Y/ 1-2 lakh	
<b>2.</b>	<b>In relation to cannabis plant (Opium)-transport, sale , purchase, import, export</b>		
	Where contravention involves small quantity	6 M/10000	
	Lesser than commercial quantity but greater than small q.	10 Y/1 lakh	
	Commercial quantity	10-20Y/ 1-2 lakh	
<b>3.</b>	<b>In relation to psychotropic plant (Opium)-transport, sale , purchase, import, export</b>		
	Where contravention involves small quantity	6 M/10000	
	Lesser than commercial quantity but greater than small q.	10 Y/1 lakh	
	Commercial quantity	10-20Y/ 1-2 lakh	
<b>4.</b>	<b>Illegal transport, sale , purchase, import, export of psychotropic substaces</b>		
	Where contravention involves small quantity	6 M/10000	

	Lesser than commercial quantity but greater than small q.	10 Y/1 lakh	
	Commercial quantity	10-20Y/ 1-2 lakh	
5.	<b>In relation to coca plant- transport, sale, purchase</b>	10Y/ 1lakh	
6.	<b>Embezzlement or illegal disposing of opium by cultivators</b>	10-20Y/ 1-2 lakh	
7.	<b>External dealings in narcotic drugs and psychotropic</b>	-----,,-----	
	<b>Allowing premises to be used for commission of offence</b>	-----,,-----	
8.	<b>Financing illicit traffic and harbouring offenders</b>	-----,,-----	
9.	<b>Licensee -unable to maintain account, fails to produce license</b>	3Y	
10.	<b>Consumption of narcotic and psychotropic substances</b>	1 Y/ 20000	
11.	<b>Offence with no punishment</b>	6 M	
12.	<b>Death penalty (quantity more than specified by Govt.)</b>	Death	
<b>IV.</b>	<b>Medicinal and Toilet Preparation Act and Rules</b>		
1.	Non-compliance with conditions of license, failure to pay duty	6 M/ 200	
2.	Failure to supply information or false information	-----,,-----	
3.	Attempting or committing commission of any offence	-----,,-----	
4.	Connivance of offences by owners or occupiers of land	6 M/ 500	
5.	Vexatious search, seizure by excise officer	2000	
6.	Failure of excise officer on duty	3 M	
7.	Improper keeping of stocks or accounts	100	
8.	Making false entries or tearing pages from stock book	2000	
9.	Sale of dutiable goods otherwise than in prescribed containers bearing the labels	1000	
10.	Failure to furnish proof of export within specified period	2000	
11.	Opening any locks or door of warehousing without consent	2000	
12.	Making any alteration in warehouse	-----,,-----	
13.	Removing goods from warehouse without consent	-----,,-----	
14.	Obstructing the officers and giving false information	500	
15.	Wilfully and maliciously giving false information	2 M/ 2000	
16.	Disclosure of information by excise officer	1000	
17.	Breach or any rule where no penalty is provided	1000	
<b>V.</b>	<b>Drugs and Magic Remedies Act</b>		
1.	Any offences made under this act	6 M - 1 Y	
<b>VI.</b>	<b>Poison Act</b>		
1.	Any offences made under this act	3 M/ 500	6 M/ 1000
<b>VII.</b>	<b>Medical Termination of Pregnancy Act and Rules</b>		
1.	Any offences made under this act	1000	
<b>VIII.</b>	<b>Patents Act and Rules</b>		
1.	Contravention of secrecy provisions	2 Y/fine	
2.	Falsification of entries in register	-----,,-----	
3.	Unauthorized claim of patents rights	1 lakh	
4.	Wrongful use of word 'patent office'	6 M/fine	



5.	Refusal/failure to supply information	-----,-----	
6.	Practice of non-registered patent agents	1 lakh	5 lakh
7.	Offences by companies	Every one	
<b>IX.</b>	<b>Designs Act and Rules</b>		
	Any person in contravention of this act	25000 to proprietor	
<b>X.</b>	<b>Trade and Merchandise Marks Act</b>		
1.	Penalty for applying false trademarks, trade description	2 Y/ fine	3 Y/ fine
2.	Penalty for selling goods to which a false trademark or false trade description is applied	-----,-----	-----,-----
3.	Penalty for falsely representing a trademark as registered	6 M	500
4.	Penalty for improperly describing a place of business as connected with the trademark office	6 M	
5.	Penalty for falsification of entries in the register	2 Y	
<b>XI.</b>	<b>Insecticides Act</b>		
1.	Import, manufacture, stocks, sale misbranded insecticide	2 Y/ 2000	3 Y/ fine
2.	Manufacture, sale of insecticide without license	-----,-----	-----,-----
3.	Import, manufacture without certificate of registration	-----,-----	-----,-----
4.	Sells prohibited insecticide	-----,-----	-----,-----
5.	Use any prohibited insecticide	-----,-----	-----,-----
6.	Obstructs an insecticide inspector	-----,-----	-----,-----
7.	Uses an insecticide in contravention of this act	500	
<b>XII.</b>	<b>Factories Act</b>		
1.	General penalty for offence- Section 87	3 M/ 2000	
2.	Enhanced penalty after previous conviction- Section 94	6 M/ 1000	
3.	Penalty for obstructing inspectors- Section 95	3 M/ 500	
4.	Penalty for wrongfully disclosure results of analysis- Section 96	-----,-----	
5.	Offences by workers- Section 97	20	
6.	Penalty for using false certificate of fitness- Section 98	1 M/ 50	
7.	Penalty for permitting double employment of child- Section 99	50	
8.	Worker wilfully misuse any appliance- Section 111	3 M/ 1000	
9.	Disclosure of information by inspector- Section 118	6 M/ 1000	
<b>XIII.</b>	<b>Industries Act</b>		
1.	Fails to register his undertaking in the prescribed manner or fails to take a license or permission	6 M/ 5000	
2.	Furnish false statement or information	3 M/ 2000	

# **TAMIL NADU PUBLIC SERVICE COMMISSION**

Advertisement No.544

Notification No. 15 / 2019

## **TNPSC Drugs Inspector Recruitment 2019**

Website:- [www.tnpsc.gov.in](http://www.tnpsc.gov.in)

### **Selection Process For TNSPC Drugs Inspector Recruitment**

The department will select candidates on the basis of two stages. These are the Written Examination and Oral Test. Candidates who qualify the written test will be called for the Oral Test. The written test will be held on 23.06.2019. The final selection of the candidates will be done on the basis of total marks secured by the candidates in the Written Exam and Oral Test.

**Exam Date :-** 23.06.2019

**Number of vacancies:-** 40

<b>Name of the post</b>	<b>Name of the Service</b>	<b>Number of Vacancies</b>	<b>Scale of Pay</b>
Drug Inspector (Post Code No. 1972)	Tamil Nadu Medical Service (Service Code No. - 048)	40	Rs. 37700 - 119500 (Level 20) as per the Tamil Nadu Revised Pay Rules, 2017
Junior Analyst in the Drugs Testing Laboratory (Post Code No. 2006)	Tamil Nadu Medical Subordinate Service (Service Code No. - 049)	09	Rs. 36400 - 115700 (Level 16) as per the Tamil Nadu Revised Pay Rules, 2017

### **TNPSC Drugs Inspector Recruitment Educational Criteria**

An aspirant must possess a degree in Pharmacy or Pharmaceutical Science or Medicine with specialization in Clinical Pharmacology or Microbiology from a recognized University.

### **Upper Age Relaxation For TNPSC Drugs Inspector Recruitment 2019**

1. Differently Abled Persons: 10 years
2. Ex-Servicemen: 48 years

### **Certificate of Physical Fitness:**

Applicants selected for appointment to the posts will be required to produce a certificate of physical fitness in the form prescribed below:

<b>S.NO.</b>	<b>Name of the post</b>	<b>Standard of vision</b>	<b>Form of certificate of physical fitness</b>
1.	Drugs Inspector	Standard-III or better	Form prescribed for posts other than Executive and Ministerial posts
2.	Junior Analyst		

**SCHEME OF EXAMINATION (OBJECTIVE TYPE-OMR METHOD) AND ORAL TEST:**

Subject	Duration	Maximum marks	Minimum qualifying marks for selection	
			SCs, SC(A)s, STs, MBCs/ DCs, BCs & BCMs	Others
<b>Paper -I (SUBJECT PAPER)</b> (200 questions) (Candidate should choose any one of the following subjects based on his/her educational qualification) (i) Pharmacy/ Pharmaceutical Sciences (Code No.246) (Degree standard) (ii) Clinical Pharmacology (Code No.352) (P.GDegree standard) (iii) M.D. Microbiology (Code No.351) (P.GDegree standard) (iv) Pharmaceutical Chemistry (Code No.245) (Degree standard) (v) *Chemistry (Code No.243) (Degree standard)	3 Hours	300	171	228
<b>ii. Paper - II (GENERAL STUDIES)</b> (Code No.003) (100 Questions) General Studies (Degree standard)-75 questions and Aptitude and Mental Ability Test (SSLC Standard) - 25 questions.	2 Hours	200		
<b>iii. Interview and Records</b>		70		
<b>Total</b>		<b>570</b>		

## CENTRAL DRUG INSPECTORS -2019

# Food and Drug Administration Department

**Deptt. No.** - S-8/70

**No of Posts :** 11 (Unreserved-07, O.B.C. - 02, S.C.- 02)

**Exam Date:-** 11/08/2019

**Pay Scale** - Rs. Level-7 Rs, 44900-142400/- and others allowances as per Govt. Rules. Nature of Post - Gazetted/Permanent and 2 years of probation period.

**Essential Qualification** - A candidate for direct recruitment to the post of Drugs Inspector must possess the following qualifications :-

- (i) Degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology or equivalent from a recognized University ;
- (ii) (a) Eighteen Month's Experience in the manufacture of at least one of the substances specified in Schedule 'C' to the Drug and Cosmetics Rules, 1945,  
or  
(b) Eighteen Month's Experience in testing of at least one of the substances specified in Schedule 'C' to the Drug and Cosmetics Rules, 1945, in a laboratory approved for this purpose by the licensing authority,  
or  
(c) Three year's experience in the inspection of firms manufacturing any of the substances specified in Schedule 'C' to the Drug and Cosmetics Rules, 1945 during the tenure of their services as Drug Inspector of any state Government or Central Government

**Preferential Qualification** - Other things being equal, such candidates shall be given preferences in the matter of direct recruitment -

- (1) Who has served in the territorial army for minimum period of two years.
- (2) Who has obtained a "B" certificate of National cadet corps.

**Age Limit** - 21 to 40 years (upper age limit for reserved category candidates shall be relaxable as per rules).

# **MEGHALAYA DRUG INSPECTOR -2019**

MEGHALAYA PUBLIC SERVICE COMMISSION

[www.mpsc.nic.in](http://www.mpsc.nic.in)

**Number of Post :-** 05

**Post:** Inspector of Drugs under Health & Family Welfare Department

**Salary:** Rs.17000 - 470 - 20290 - EB - 560 - 25330 - 760 - 33690/ - pm

**Qualification:**

The candidate must possess a degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from any recognised university established in India by law.

**Age & Relaxation:**

Not more than 27 years & below 18 years relaxable by 5 years in respect of SC/ST. No age limit for candidates already in Meghalaya Government service provided they entered service within the prescribed age limit.

**METHOD OF SELECTION**

The final selection/recommendation of suitable candidates against the vacancies notified in this Advertisement shall be made by the Commission through any of the following processes.

1. Typing Speed, English Composition and Stenography Test, in recruitment to post of Typist and Stenographer (All Grades) as the case may be.
2. Screening Test followed by Personal Interview.
3. Written examination followed by Personal Interview.
4. **(i)** Preliminary Screening Test **(ii)** Main Examination **(iii)** Personal Interview.
5. Personal Interview only

**DRUG CONTROL OFFICER IN DRUG CONTROL**  
**ORGANIZATION, RAJASTHAN MEDICAL & HEALTH (Gr. 2)**  
**DEPARTMENT, GOVT. OF RAJASTHAN**

**NOTIFICATION NUMBER- 1233/2018**

**Website:- [www.ruhsraj.org](http://www.ruhsraj.org)**

**Post:** Drug Control Officer

**No.of Posts:** 50

**Important Dates**

Start date for filling of on-line application form at RUHS Website	28.03.2018(5.00 pm onwards)
Last date for submitting the on-line application form at RUHS website	20.04.2018 (12.00 midnight)
Date of on-line examination (computer based) at Jaipur	18.05.2018
Receipt of printout of the on-line application form (along with all relevant documents)	Not to be submitted now - To be submitted on reporting / on selection.

**Educational Qualification :**

A Degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a University established in India by Law.  
Knowledge of Hindi language in devnagri script (lipi) – to read, to write and to speak

**Age limit**

Minimum 21 years and maximum 45 years (as on the date of DCO Recruitment Examination 2018).  
The relaxation in upper age limit for reserved category candidates in Rajasthan shall be applicable as per state government rules.

**Pay Scale**

Pay Band - 3 15600-39100 (Grade pay Rs 5400)

**Pattern of question paper –**

Objective type,  
100 questions,  
all questions of equal marks, no negative marking, duration of question paper 2 hours.

## **SYLLABUS**

### **NATURAL PRODUCTS:**

Pharmacognosy of Senna, Digitalis, Clove, Cinnamon, Rauwolfia, Ergot, Belladonna, Vinca, Ginseng, Opium and Gelatin. Chemical nature of the active constituents, tests and mode of action of these drugs.

### **PHARMACEUTICS (Technology of drug delivery system, Biopharmaceutics, Pharmaceutical legislation):**

Technology of drug delivery system: Manufacture, Standards, labelling, packaging and storage of dosage forms like tablets, capsules, liquid orals, injectables, topical preparations, blood products and plasma substitutes, sustained release dosage forms and novel drug delivery systems.

Sterilization: Different methods of sterilization and sterility testing of pharmaceuticals.

Basics of pharmacokinetics and their importance in formulation, Bioavailability, Bioequivalence, Stability studies.

Drugs and Cosmetics Act and Rules, Pharmacy Act, Narcotic and Psychotropic Substances Act, Essential Commodities Act, Drugs (Price Control) Order.

### **PHARMACEUTICAL ANALYSIS:**

Principles and application of absorption spectroscopy, chromatography, potentiometry, complexometry, non-aqueous titrations with reference to drugs given in Indian Pharmacopoeia. Microbiological assays and biological standardization of antibiotics and vitamins as per I.P.

### **PHARMACOTHERAPEUTIC AGENTS AND CLINICAL PHARMACOLOGY:**

Nomenclature, synthesis, uses, mechanism of action, SAR and metabolism of drugs belonging to the following categories which are official in Indian Pharmacopoeia.

Neuroleptics and tranquilisers, antihypertensives, antiarrhythmics, vasodilators, diuretics, antibiotics, sulphonamides, analgesics and anti-inflammatory drugs, antihistaminics, antineoplastics, antiamoebics, oral contraceptives, antituberculars and antileprotics, antimalarials, insulin and other antidiabetics, corticosteroids, antiulcer and antiasthmatics.

Clinical aspects of pharmacy and pharmacology, drug interactions, Basic concepts of drug metabolism.

Evaluation of drugs in human beings/ clinical trials.

Drug therapy in paediatrics, geriatrics and during pregnancy.

Radioisotopes in medical practice, Biological effects of radiation.

### **MICROBIOLOGY AND BIOTECHNOLOGY:**

Classification, cultivation, isolation, identification and nutritional needs of bacteria, viruses, protozoa and fungi, Microbial genetics and variations, Theoretical aspects of immunity, sources and mode of infection, general methods of preparation, standardization, preservation, storage and uses of Vaccines, Sera and diagnostic agents, Antigen - antibody reactions, Mycobacterium - Tuberculosis, Leprosy - Salmonella, Shigella, spirochetes, mycoplasma, diarrhoeal diseases, ELISA, Bacteriology of water, milk and food.

Drug sensitivity tests for Bacteria.

Fermentation technology: production of alcohol, acetic acid, citric acid, penicillin, tetracycline.

# MP DRUG INSPECTOR EXAMINATION

NOTIFICATION NUMBER. 42/2017

Recruitment to the post of Drug Inspector Conducted by VYAPAM PEB

WEBSITE - [www.vyapam.nic.in](http://www.vyapam.nic.in)

**Examination Date:-** 8 April, 9 April 2017

**No. of Vacancies:** 18

परीक्षा दिनांक एवं दिन	परीक्षा की पाली	अभ्यर्थियों के लिये रिपोर्टिंग समय	महत्वपूर्ण निर्देश पढ़ने का समय	उत्तर अंकित का समय
08-09/04/2017 शनिवार, रविवार	एक	प्रातः 07:30 बजे	08:50 से 09:00 बजे तक (10 मिनट)	प्रातः 09:00 से 12:00 बजे तक (3:00 घंटे)
	द्वितीय	दोपहर 12:30 बजे	01:50 से 02:00 बजे तक (10 मिनट)	दोपहर 02:00 से 05:00 तक (3:00 घंटे)

## Scheme of Exam:

1	General Studies, Mental ability etc.	100 Ques.	180 Minutes
2	Concerned Subject	100 Ques.	180 Minutes

## Syllabus

### Paper 1

विषयो का विवरण	(पाठ्यक्रम )
1. सामान्य ज्ञान	निरंक
2. सामान्य हिन्दी	
3. सामान्य अंग्रेजी	
4. सामान्य गणित	
5. सामान्य तार्किक योग्यता	
6. सामान्य विज्ञान	
7. सामान्य कम्प्यूटर ज्ञान	

### Paper 2

#### **Pharmaceutical Technology**

**Capsules:** Advantages and disadvantages of capsule dosage form, material for production of hard gelatin capsules, size of capsules, method of capsule filling, soft gelatin, capsule shell and capsule content, importance of base absorption and minimum/gm factors in soft capsules, quality control, stability testing and storage of capsule dosage forms.

**Microencapsulation:** Types of microcapsules, importance of microencapsulation in pharmacy, microencapsulation by phase separation, coacervation, multi orifice, spray drying, spray congealing, polymerisation complex emulsion, air suspension technique, coating pan and other techniques, evaluation of micro capsules.



*Tablets:* (a)Formulation of different types of tablets, granulation, technology on largescale by various techniques, physics of tablets making, different types of tablet compression machinery and the equipments employed, evaluation of tablets. (b)Coating of Tablets : Types of coating, film forming materials, formulation of coating solution, equipments for coating, coating process, evaluation of coated tablets.(c)Stability kinetics and quality assurance.

*Parenteral Products:* (a)Preformulation factors, routes of administration, water for injection, pyrogenicity, non aqueous vehicles, isotonicity and methods of its adjustment (b)Formulation details, containers and closures and selection.

(c)Prefilling treatment, washing of containers and closures, preparation of solution and suspensions, filling and closing of ampoules, vials, infusion fluids, lyophilization & preparation of sterile powders, equipment for large scale manufacture and evaluation of parenteral products.(d)Aseptic Techniques-source of contamination and methods of prevention, Design of aseptic area, Laminar flow bench services and maintenance. (e)Sterility testing of pharmaceuticals.

*Surgical products :* Definition, primary wound dressing, absorbents, surgical cotton, surgical gauzes etc., bandages, adhesive tape, protective cellulosic hemostatics, official dressings, absorbable and nonabsorbable sutures, ligatures and catguts. Medical prosthetics and organ replacement materials.

*Packaging of Pharmaceutical Products:* Packaging components, types, specifications and methods of evaluation, stability aspects of packaging. Packaging equipments, factors influencing choice of containers, legal and other official requirements for containers, package testing. .

*Liquid Dosages Forms :* Introduction, types of additives used in formulations, Vehicles, stabilizers, preservatives, suspending agents, emulsifying agents, solubilizer, colors, flavours and others, manufacturing packaging and evaluation of clear liquids, suspensions and emulsions official in pharmacopoeia.

*Semisolid Dosage Forms :* Definitions, types, mechanisms of drug penetration, factors influencing penetration, semisolid bases and their selection. General formulation of semisolids, clear gels manufacturing procedure, evaluation and packaging.

### **Pharmaceutical Analysis**

Quality assurance: GLP, TQM, Quality Review and Quality Documentation. Validation/Qualification (DQ/IQ/OQ/PQ) , validation of equipment, validation of analytical procedures.

The theoretical aspects, basic instrumentation, elements of interpretation of spectra, and applications of the following analytical techniques should be discussed :

- 1.Ultraviolet and visible spectrophotometry
- 2.Fluorimetry.
- 3.Infrared spectrophotometry.
- 4.Nuclear Magnetic Resonance spectroscopy including <sup>13</sup>C NMR.
- 5.Mass Spectrometry.
- 6.Flame Photometry.
- 7.Chromatography(TLC,HPLC,HPTLC,GLC, Paper Chromatography,)
- 8.Atomic Absorption Spectroscopy.

### **Pharmacology and toxicology**

Introduction and general principle of pharmacology and toxicology: Mode of action, drug receptor interaction, drug antagonist, absorption, distribution, metabolism and excretion, rate of administration, Bioavailability, drug dependence and addiction, drug abuse and toxicity, drug adverse reaction, Drug allergy of Central nervous system, Cardiovascular system, Autonomic nervous system, Gastro intestinal system and Respiratory system. Pharmacology of Autocoids, Hormones, Hormone antagonists, chemotherapeutic agents including anticancer drugs. Bioassays, Immuno Pharmacology. Drugs acting on the blood & blood forming organs. Drugs acting on the renal system.

## **Microbiology**

1. Introduction to the scope of microbiology.
2. Classification of microbes and their taxonomy. Actinomycetes, bacteria, rickettsiae, spirochetes and viruses.
3. Identification of Microbes: Stains and types of staining techniques, electron microscopy.
4. Nutrition, cultivation, isolation of bacteria, actinomycetes, fungi, viruses, etc.
5. Microbial genetics and variation.
6. Control of microbes by physical and chemical methods.
  - a. Disinfection, factors influencing disinfectants, dynamics of disinfection, disinfectants and antiseptics and their evaluation.
  - b. Sterilization, different methods, validation of sterilization methods & equipments.
7. Sterility testing of all pharmaceutical products.
8. Microbial assays of antibiotics, vitamins & amino acids.

## **Pharmacognosy**

Source, Chemical constituents, uses and adulteration of the following classes of natural drugs, Rauwolfia, Ipecacuanha, Belladonna, Cinchona, Cinnamon, Digitalis, Senna, Aloe, Nuxvomica, Opium Alkaloid, Kurchi, Brahmi, Tulsi, Bael and Ephedra. And Glycosides : Chemistry and biosynthesis of digitoxin, digoxin, hecogenin, sennosides, diosgenin and sarasapogenin. Alkaloids: Chemistry, biogenesis and pharmacological activity of atropine and related compounds; quinine, reserpine, morphine, papaverine, ephedrine, ergot and vinca alkaloids.

## **Hospital & Clinical Pharmacy**

Introduction to Clinical Pharmacy. Therapeutic Drug Monitoring Concept of Essential Drugs and Rational Drug use. Drug Store Management and Inventory Control: (a) Organization of drug store, Types of materials stocked, storage conditions (b) Purchase and Inventory Control principles, purchase procedures, Purchase order, Procurement and stocking. Drug distribution Systems in Hospitals:(a) Out-patient dispensing, methods adopted. (b) Dispensing of drugs to in-patients. Types of drug distribution systems. Charging policy, labeling.(c) Dispensing of drugs to ambulatory patients. (d) Dispensing of controlled drugs. Manufacture of Sterile and Nonsterile Products: Policy making of manufacturable items, demand and costing, personnel requirements, manufacturing practice, Master formula Card, production control, Manufacturing records. Records and Reports: Prescription filling, drug profile, patient medication profile, cases on drug interaction and adverse reactions, idiosyncratic cases etc.

## **Medicinal Chemistry**

Structure, nomenclature, classification, synthesis, SAR and metabolism of the following category of drugs, which are official in Indian Pharmacopoeia and British Pharmacopoeia. Introduction to drug design. Stereochemistry of drug molecules. Hypnotics and Sedatives, Analgesics, NSAIDs, Neuroleptics, Antidepressants, Anxiolytics, Anticonvulsants, Antihistaminics, Local Anaesthetics, Cardio Vascular drugs – Antianginal agents Vasodilators, Adrenergic & Cholinergic drugs, Cardiotonic agents, Diuretics, Antihypertensive drugs, Hypoglycemic agents, Antileptemic agents, Coagulants, Anticoagulants, Antiplatelet agents. Chemotherapeutic agents – Antibiotics, Antibacterials, Sulphadugs. Antiprotozoal drugs, Antiviral, Antitubercular, Antimalarial, Anticancer, Antiamoebic drugs. Diagnostic agents. Preparation and storage and uses of official Radiopharmaceuticals, Vitamins and Hormones. Eicosonoids and their application.

### **Anatomy and physiology**

Elementary knowledge of following systems :-Blood, Digestive System , respiratory system, Eye, Ear, Reproduction system and Urinary system.

### **Pharmaceutical Jurisprudence**

A briefer view. And elaborate study of the following.

a.Pharmaceutical Ethics

b.Pharmacy Act 1948.

c.Drugs and Cosmetics Act 1940 and Rules 1945.

d.Narcotic Drugs & Psychotropic Substances Act 1985 & Rules.

e.Drugs Price Control Order.

f.Drugs and Magic Remedies (Objectionable Advertisements) Act 1954

g.Prevention of Cruelty to Animals Act 1960.

h. Drugs Patent Act

### **Biopharmaceutics & Pharmacokinetics**

Introduction to Biopharmaceutics and Pharmacokinetics and their role in formulation development and clinical setting..Biopharmaceutics Passage of drugs across biological barrier (passive diffusion, active transport, facilitated diffusion and pinocytosis). Factors influencing absorption Physicochemical, physiological and pharmaceutical. Drug distribution in the body, plasma protein binding. Pharmacokinetics Significance of plasma drug concentration measurement. Compartment model-Definition and Scope. Pharmacokinetics of drug absorption -Zero order and first order absorption rate constant using Wagner-Nelson and LooReigel man method. Volume of distribution and distribution coefficient. Compartment kinetics -One compartment and two compartment models.Determination of pharmacokinetic parameters from plasma and urine data after drug administration by intravascular and oral route.Curve fitting (method of Residuals), regression procedures. Clearance concept, Mechanism of renal clearance, clearance ratio, determination of renal clearance.Extraction ratio, hepatic clearance, biliary excretion, Extrahepatic circulation. Non-linear pharmacokinetics with special reference to one compartment model after 1. V drug administration, Michaelis Menten Equation, detection of non-linearity (Saturation mechanism). Clinical Pharmacokinetics Definition and scope . Dosage adjustment in patients with and without renal and hepatic failure. Design of single dose bio-equivalence study and relevant statistics. Pharmacokinetic drug interactions and their significance in combination therapy. Bioavailability and bioequivalence Measures of bioavailability, C<sub>max</sub>, t<sub>max</sub>, and Area Under the Curve (AUC). Design of single dose bioequivalence study and relevant statistics. Review of regulatory requirements for conduction of Bioequivalent studies.

### **Pharmaceutical Biotechnology**

Genetic Recombination : Transformation, conjugation, transduction, protoplast fusion and gene cloning and their applications. Development of hybridoma for monoclonal antibodies. Study of drugs produced by biotechnology such as Actinase, Humulin, Humatrope, HB etc. Antibiotics: Historical development of antibiotics. Antimicrobial spectrum and methods used for their standardization. Screening of soil for organisms producing antibiotics, fermenter, its design, control of different parameters. Isolation of mutants, factors influencing rate of mutation. Design of fermentation process. Isolation of fermentation products with special reference to penicillins, streptomycins tetracyclines and vitamin B12.

# **MP DRUG INSPECTOR EXAMINATION**

**SELECTION ORDER: AS PER LETTER NO. 1/L./115/2011/583**

Drug and Food Inspector Examination is being conducted by the Madhya Pradesh Professional examination board.

**WEBSITE - [www.vyapam.nic.in](http://www.vyapam.nic.in)**

**Post:- DRUG INSPECTOR**

**Exam Date:- 3/02/2013**

**Total Post: -16**

**Scale of Pay:- Rs. 9,300 -34,800/- + 3600/-Grade Pay**

**Required qualification:**

The applicant should hold Degree in Pharmacy or Pharmaceutical Science or Medicine with Specialization in Clinical Pharmacology or Microbiology with minimum 60% marks.

**Age:**

Candidates aged between 18 and 40 years of age are eligible to apply.

**Paper pattern:**

**GROUP A (Total marks: 100)**

General Studies with special reference to Madhya Pradesh (50 questions): 50 marks

Logical ability (25 questions): 25 marks

Psychological test (25 questions):25 marks

**GROUP B (Total Marks)**

Syllabus of pharmacy graduate level exam (100 questions): 100 marks.

**Interview:- No**



# **KERALA PUBLIC SERVICE COMMISSION**

**Category Number- 214/16**

**WEBSITE :[www.keralapsc.gov.in](http://www.keralapsc.gov.in)**

**DRUGS INSPECTOR: DRUGS CONTROL DEPARTMENT**

**Date Of Exam:- 01/03/2017**

**Syllabus:** An Objective Type Test (OMR Valuation) based on the qualification prescribed for the post.

**Main Topics:-**

Part I : Questions based on Degree in Pharmacy

Part II : General Knowledge, Current Affairs & Renaissance in Kerala

**Maximum Marks : 100**

**Duration:** 1 hour 15 minutes

Interview:- Not Specified

# **KERALA PUBLIC SERVICE COMMISSION**

**Category Number- 204/2013**

**WEBSITE :[www.keralapsc.gov.in](http://www.keralapsc.gov.in)**

**1. Department :** Drugs Control

**2. Name of Post :** Drugs Inspector(Ayurveda)

**3. Scale of Pay :** R 19240-34500

**4. Number of vacancies :** 4 (Four)

**5. Age limit :** 21-36

**6. Qualifications:-**

Degree in Ayurveda or Siddha or Unani of a recognized University  
OR

Degree in Pharmacy (Ayurveda)of a recognized University

**Note:-**

(1) Persons appointed as Drugs Inspector(Ayurveda) shall be on training for six months from the date of joining in service.

(2) Probation with respect to the Category of Drugs Inspector (Ayurveda)who are appointed by direct recruitment shall commence after successful completion of training.

(3) Every person appointed as Drugs Inspector(Ayurveda)shall during the period of probation pass Account Test(Lower) or Account Test for Executive Officers, if he has not already pass the same.

# **UNION PUBLIC SERVICE COMMISSION**

**Vacancy:- 15020403128**

Recruitment to the post of Drug Inspector in Department of Health and Family Welfare

**WEBSITE - [www.upsconline.nic.in](http://www.upsconline.nic.in)**

**Organisation:** Central Drugs Standard Control Organization CDSCO

**Post:-** Drug Inspector

**Total Post:-** 147

**Pay Scale:-** PB-2 Rs.9300-34800 plus Rs. 4800/- Grade Pay (Total emoluments Rs. 37,571/- (Rs. 13,350 G.P. of Rs. 4800 107% D.A. as on 0107.2014)

**Age:-** Not exceeding 30 years as on normal closing date for General Candidates. Relaxable for regularly appointed Central/UT Govt. servants upto five years in accordance with the instructions or orders issued by the Govt. of India from time to time. For age concession applicable to some other categories of applicants, please see relevant paras of the 'Instructions and Additional information' to candidates for Recruitment by Selection.

## **Essential Qualificaiton (s)**

### **(A) EDUCATIONAL**

Degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a recognized University or equivalent.

### **(B) EXPERIENCE**

- (i) Eighteen months' experience in the manufacture of at least one of the substances specified in Schedule 'C' to the Drugs and Cosmetics Rules, 1945 or
- (ii) Eighteen months' experience in testing of at least one of the substances specified in Schedule 'C' to the Drugs and Cosmetics Rules, 1945 in a laboratory approved for this purpose by the licensing authority or
- (iii) Three years' experience in the inspection of firms manufacturing any of the substances specified in Schedule 'C' to the Drugs and Cosmetics Rules, 1945 during the tenure of their service as Drugs Inspector.

**NOTE I** The qualifications are relaxable at Commission's discretion in case of candidates otherwise well qualified.

**NOTE II** The qualification(s) regarding experience is relaxable at the discretion of the Commission in case of candidates belonging to Scheduled Castes/Schedule Tribes in respect of posts reserved for them.

**Duty(ies):-** Duties and functions specified in Rules 51 and 52 of the Drugs and Cosmetics Rules, 1945 include inspection of (i) all licensed drugs manufacturing establishments (ii) the plant and the process of manufacture, the means employed for standardizing and testing the drug, the methods and place of

storage, the technical qualifications of the staff etc. which are likely to affect the potency or purity of the product, taking samples of drugs from premises of manufacturer/ dealers for test or analysis, (iii) investigation of cases of spurious drugs and related complaints and (iv) launching of prosecutions for breaches of the Drugs and Cosmetics Act, 1940 and Rules .

**Probation:-** Two Years

**Head Quarter:-** Central Drugs Standard Control Organization, New Delhi, Zonal /Sub-Zonal/Port Offices etc. Anywhere in India.

**Interview:-** Yes

**Examination scheme:**

- The exam will be for a duration of two hours
- The exam will be conducted in English medium only
- The test will be objective type, carrying multiple choice questions
- It will carry a maximum of 100 marks
- There will be negative marking for wrong answers. Each wrong answer will carry a deduction of one-third of the marks assigned to that question
- If there is no answer marked for a question, then there will be no penalty for the same

**Syllabus:-**

- Basic Knowledge in Pharmaceutical Chemistry - Chemistry of Drugs, their uses Pharmacological and Toxicological effects of Drugs
- Knowledge in manufacturing and evaluation of Pharmaceutical Dosage Forms
- Knowledge in Analysis of Drug formulations and Active Pharmaceutical Ingredients
- Procedures involved in collection of blood and preparation of its components
- Procedures involved in production of Vaccines, Sera and Biotech products
- Good Manufacturing Practices in manufacturing activity
- Good Laboratory Practices in analysis of Drugs and Cosmetics
- Good Clinical Practices
- Knowledge of Investigational skills
- Drugs and Cosmetics Act and Rules with respect to Clinical Trials, Manufacture, Sale and Import of Drugs, Medical Devices and Cosmetics.
- Basic Principles of Biopharmaceutics and Pharmacokinetics
- Basic Knowledge of Computer Applications
- English Language Proficiency
- The candidates who clear the examination will be asked to submit the required documents. And subject to the verification of these documents, they will be called for the interview round.

# **ANDHRA PRADESH PUBLIC SERVICE COMMISSION**

**NOTIFICATION NUMBER. 28/2011 DT: 27/12/2011**

Recruitment to the post of Drug Inspector in A.P Drug Control Administration Service

**WEBSITE – [www.asppsc.gov.in](http://www.asppsc.gov.in)**

**Date of exam:** 29/04/2012

**No. of Vacancies:** 56

## **Selection Procedure:**

The selection of candidates for appointment to the posts will be made on written examination (objective type) and oral tests. The final selection of these posts will be based on the written and oral marks put together.

1.The minimum qualifying marks for selection are OCs 40%, BCs 35% SCs, STs 30% or as per rules. The minimum qualifying marks are relaxed able in the case of SC/ST/BC on the discretion of the Commission.

2. The candidates will be selected and allotted to Service/ Department as per their rank in the merit list and for the vacancies available. **N.B.:** Mere securing minimum qualifying marks shall not vest any right in a candidate for being considered for selection.

3.The selection will be made on state-wide merit. Reservation to local candidates is not applicable to this recruitment as per departmental special rules.

4.The appearance in all the papers at the Written Examination as per rules is compulsory. Absence in any of the papers will automatically render his candidature as disqualified.

5.Candidates have to produce Original documents and other particulars for verification as and when required and called for. If the particulars furnished in the application do not tally with the Original documents produced by the candidate, the candidature will be rejected. The candidate should carefully fill in all the particulars. For any omission on his part in filling the application leading to rejection of his/her candidature as he/she will be solely and squarely responsible. Commission will not entertain any request in this regard.

6.The appointment of selected candidates will be subject to their being found medically fit in the appropriate medical classification.

## **Scheme of Exam:**

Part-A:Written(Objective Type)Examination				
1	General Studies and Mental ability	150 Marks	150 Ques.	150 Minutes
2	Concerned Subject	300 Marks	150 Ques.	150 Minutes
Total		450 Marks		



**Vacancies:**

PC.No	Name of the Post	No. Of Vacancies	Age as on 01/07/2011 Min. Max.	Pay Scale Rs.
01	Drug Inspector in A.P. Drugs Control Administration Service.	56	18-34	Rs.16,150-42,590/-

**Education Qualification:**

Post Code	Name of the Post	Educational Qualifications
01	Drug Inspector in A.P. Drugs Control Administration Service.	Must possess a Degree in Pharmacy or Pharmaceutical Science or Medicine with Specialization in Clinical Pharmacology or Microbiology from a University established in India by Law.

**SYLLABUS****GENERAL STUDIES & MENTAL ABILITY**

1. General Science – Contemporary developments in Science and Technology and their implications including matters of every day observation and experience, as may be expected of a well-educated person who has not made a special study of any scientific discipline.
2. Current events of national and international importance.
3. History of India – emphasis will be on broad general understanding of the subject in its social, economic, cultural and political aspects with a focus on AP Indian National Movement.
4. World Geography and Geography of India with a focus on AP.
5. Indian polity and Economy – including the country's political system- rural development Planning and economic reforms in India.
6. Mental ability – reasoning and inferences.

**SUBJECT**

1. Importance of various Pharmacopoeas with special reference to Indian Pharmacopoes, British Pharmacopoea, Unites States Pharmacopoea and International Pharmacopoes.
2. Sources of drugs: Plant, Animal, Mineral, Synthetic and Biotechnological drugs.
3. Preparation of Infusions, Decoctions, Tinctures, Solutions, Soft and Dry extracts. Introduction and classification of various pharmaceutical dosage forms.
4. Various parts of "Prescription" handling of prescriptions preliminary knowledge of important Latin terms useful in interpretation of prescription and their translation into English.
5. Posology: Calculation of dosage for infants, children adults and elderly persons. Alcohol dilutions, Proof spirit, Isotonic solutions, Displacement value.
6. Brief outline of communicable diseases, their causative agents, modes of transmission and their prevention (Chicken pox, Tuberculosis, Malaria, Filaria, Leprosy, Sexually transmitted diseases and AIDS).
7. First Aid: Emergency treatment of shock, snake-bites, burns, poisoning and fractures.
8. Classification of microbes their structure and identification. Bacterial growth, nutritional requirements and staining.
9. Contamination of pharmaceuticals in hospital and community environments by microbes.
10. Sterilization: Definition, types, procedure and testing.
11. Sterilization of materials, equipments and utencils used in hospitals, centralized and decentralised sterilization. Drug distribution system in hospitals for out-patients and inpatients.
12. Ophthalmic preparations: formulations, methods of preparation, containers and evaluation.

13. Collection, processing, storage and evaluation of blood, blood products and plasma – substitutes
14. Surgical products: Surgical cotton, surgical gauzes, bandages, sutures, ligatures and catguts.
15. Definition and types of incompatibilities (Physical Chemical and Therapeutic), correction of incompatibilities.
16. Anatomy and physiology of Cardio-vascular system and related common disorders like hypertension, hypotension, angina, myocardial infarction and congestive heart failure.
17. Anatomy and physiology of Digestive system and related disorders like peptic ulcers, constipation, diarrhoea and jaundice.
18. Functions of different parts of Brain and spinal cord, Neurohumoral transmission in the central nervous system and autonomic nervous system.
19. Drugs, acting on cardiovascular system: Digitalis and other cardiac glycosides, antihypertensive drugs, anti-anginal and vasodilators including calcium channel antagonists.
20. Drugs acting on Gastro-intestinal tract: antacids, anti-ulcer drugs, anti-emetics, laxatives and anti diarrhoeal drugs.
21. Drugs acting on central nervous systems: Sedatives, hypnotics, anti-anxiety agents, centrally acting muscle relaxants, anti-epileptics, analgesic, anti-phyretic and anti-inflammatory drugs.
22. Antigens, anti-bodies, antigen-anti body reactions, hypersensitivity active and passive immunity types of vaccines.
23. Historical development of antibiotics. Isolation of fermentation products with special reference to penicillins and tetracyclines.
24. Carbohydrate metabolism: Glycolysis, gluconeogenesis, glycogenolysis, glycogen formation, pentose phosphate pathway, uronic acid pathway, abnormalities of carbohydrate metabolism.
25. Introduction and principles of anti-microbial therapy Cotrimoxazole, fluoroquinolones, newer penicillins, broad spectrum antibiotics, cephalosporins, macrolides, anti-tubercular, anti-leprotic, antifungal and anti-viral drugs.
26. Anti protozoan and anthelmintic drugs. Chemotherapy of neoplastic diseases.
27. Salient features of Drugs and Cosmetics Act, 1940 and Rules, 1945 with special reference to Duties and powers of Inspectors. Composition and functions of statutory bodies.
28. Narcotic Drugs and Psychotropic substances Act, 1985 with special reference to procurement and utilization of dosage forms.

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# **ODISHA PUBLIC SERVICE COMMISSION**

## **ADVERTISEMENT NO. 12 OF 2013-14**

Recruitment to the post of Drugs Inspector in Class-II (Group-B) of State Service under the Health & Family Welfare Department.

**WEBSITE - <http://opsconline.gov.in>**

<b>Paper</b>	<b>Subject</b>	<b>Maximum Marks</b>	<b>No. of objective multiple choice question</b>	<b>Duration of the Examination</b>
1	2	3	4	5
Paper-I	Pharmacy	200	100	2 hours
Paper-II	General Knowledge	50	50	1 hours

### **PLAN OF EXAMINATION**

1. The written examination will consist of two papers with 250 marks
2. (i) All question papers will be set in English and the same should be answered in English only.  
(ii) The candidates are not allowed to bring calculators or any other electronic devices to the examination hall/examination campus for use.  
(iii) Mobile phones, pagers or any other communication devices are not allowed inside the premises of the Examination Centre and Office of the Commission. Any infringement of these instructions shall entail disciplinary action including ban from future examination.
3. There will be negative marking for wrong answers.

### **BROAD OUTLINES OF SYLLABUS FOR WRITTEN EXAMINATION FOR RECRUITMENT TO THE POST OF DRUGS INSPECTOR.**

#### **PAPER-I (PHARMACY )**

There should be 8 units containing the following :

##### **Unit-1- FORENSIC PHARMACY**

1. Drugs and Cosmetic Act, 1940 and Rules thereunder, 1945 with amendments.
2. Pharmacy Act, 1948.
3. Drug Price Control Order, 1995.
4. Medical Termination of Pregnancy Act, 1971.
5. Poison Act, 1919 and Dangerous Drugs Act, 1930.
6. Drugs and Magic Remedy Act, 1954.

7. Medical and Toilet Preparation Act, 1955.
8. Prevention of Cruelty to Animal Act.
9. Trademark Registration Act.
10. Pharmaceutical Ethics.

### **Unit-2- MANUFACTURING PHARMACY**

1. Tablet and Tablet coating.
2. Capsule.
3. Emulsion, Suspension, Ointment and Cream.
4. Ophthalmic Solutions.
5. Blood Fluid and Electrolytes.
6. Parenteral preparation and Quality Control.
7. Surgical Dressing.
8. Biological preparation ... (Sera, Vaccine and Anti-Sera)
9. Biopharmaceutics. 2

### **Unit-3- PHARMACEUTICAL ANALYSIS**

1. Limit Test.
2. Bio-Assay.
3. Sterility Test.
4. Pyrogen Test.
5. Theory & Application of Colorimeter, Florimeter, Nephelometer and Turbidometer, U.V. Visible Spectrophotometer.
6. Karl Fischer Titration.
7. Alcohol determination.
8. Microbiological Assay of Vitamins, Antibiotics and Vaccine Preparation.

### **Unit-4- MEDICINAL CHEMISTRY**

Structure, Storage, Preparation & Brand names of the Following Classes (Definition, Classification etc.):

1. Steroids
2. Sedatives and Hypnotics.
3. Psycho-therapeutic Agents.
4. Antihistaminic Agents.
5. Analgesics (narcotic, non-narcotic and NSAID)
6. Cardiovascular Agents.

### **Unit-5 -PHARMACOGNOSY**

Source, Chemical constituents, uses and adulteration of the following classes of natural drugs, Rauwolfia, Ipecacuanha, Belladonna, Cinchona, Cinnamon, Digitalis, Senna, Aloe, Noxvomica, Opium, Kurchi, Brahmi, Tulsi, Bael and Ephedra.

### **Unit-6- PHARMACOLOGY & TOXICOLOGY**

Introduction and General Principle Mode of action, Drug receptor interaction, Drug, antagonist, Absorption, distribution, metabolism and excretion of drugs, Routes of administration, Bioavailability, Drug dependence and addiction, Drug abuse and toxicity, Adverse drug reaction, Drug allergy, Biostatistics.

### **Unit-7- HOSPITAL & CLINICAL PHARMACY**

Handling of prescription, Incompatibility, Storage conditions of drugs, Clinical Pharmacy and its role in Hospital.

## Unit-8 - ANATOMY, PHYSIOLOGY & HEALTH EDUCATION

1. Elementary knowledge of following systems :- Blood, Digestive system, Respiratory system, Eye, Ear, Reproductive system and Urinary system.
2. Nutrition, First aid, Population Control, Aids Control.

### PAPER-II (GENERAL KNOWLEDGE ):

The paper in General Knowledge will include knowledge of current events and matters as of everyday observation and experience in their scientific aspects of life as may be expected of an educated person. The paper will also include questions on History of India and Geography of such standard which the candidates should be able to answer without special study.

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# STAFF SELECTION COMMISSION

ADVT No- NR/1/2012 Date:- 15/09/2012

Assistant Drugs Inspector in CDSCO, Ministry of Health & Family Welfare

WEBSITE - <http://ssc.nic.in>

Post Cat. No. B-01: Assistant Drugs Inspector

Total Vacancy:- 31

Age: 18-30 years, Relaxation of age permissible as per rules

Pay Scale: Rs.9300-34800 with G.P. Rs. 4200/- (Group-B, Non-Gazetted)

**Educational Qualification:** Degree in Pharmacy or Pharmaceutical Sciences or Medicine with Specialization in Clinical Pharmacology or Microbiology from a recognized University or equivalent.

**Job Responsibility.-** To assist in evaluation of safety efficacy and quality of Drugs as per requirement of Drugs and cosmetics Act, 1940. To assist in the matter of taking samples. To assist CDSCO officer in the matter of monitoring documentation. To carry out such other duties as may be assigned under the Drugs and Cosmetics Act and Rules frame their under. I.P. Delhi with AISL(All India service Liability)

**Procedure of Selection:-** Interview(100 Marks)

**Syllabus:-** Not Provided

The advertisement for GPAT Discussion Center (GDC) includes the following elements:

- Logos:** GPAT logo, GPAT Discussion Center logo, and a logo for 'RANKED NO. -1 IN PHARMA EDUCATION'.
- Text:** 'GPAT DISCUSSION CENTER' in a blue banner.
- Courses Offered:** A list of courses in colored boxes: GPAT (blue), NIPER (purple), PHARMACIST (red), and DRUG INSPECTOR (orange).
- Image:** A hand holding a pen, marking a checkbox in a list of five checkboxes. The second checkbox is checked with a green mark.
- Contact Information:** 'Join GDC in Whatsapp' with the number 7974697768, and 'Like us on Facebook' with the Facebook logo.
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- Footer:** 'Join the Best' in yellow text, followed by 'Classroom Program', 'Study Material', and 'Online Test Series' in white text on a blue background. Helpline No. - 9770765680, 8602227444, 8737889272.

# UNION PUBLIC SERVICE COMMISSION

ADVT No- 16/2010 Date:- 8/2010

**Drugs Inspector in CDSCO, Ministry of Health & Family Welfare**

**WEBSITE - [www.upsc.gov.in](http://www.upsc.gov.in)**

**No. of Vacancy:-** 81 (Raised to 100)

**Qualifications :** Essential : A. Educational : Degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a recognized University or equivalent.  
B.

**Experience :**

(a) Eighteen months' experience in the manufacture of at least one of the substances specified in Schedule 'C' to the Drugs and Cosmetics Rules, 1945;

OR

(b) Eighteen months' experience in testing of at least one of the substances specified in Schedule 'C' to the Drugs and Cosmetic Rules, 1945 in a laboratory approved for this purpose by the licensing authority ;

OR

(c) Three years' experience in the inspection of firms manufacturing any of the substances specified in scheduled 'C' to the Drugs and Cosmetic Rules, 1945 during the tenure of their services as Drugs Inspector.

**Duties :** Duties and functions specified in Rules 51 and 52 of the Drugs and Cosmetics Rules, 1945 include inspection of all licensed drugs manufacturing establishments, the plant and the process of manufacture, the means employed for standardizing and testing the drug, the methods and place of storage, the technical qualifications of the staff etc. which are likely to affect the potency or purity of the product, taking samples of drugs from premises of manufacturer / dealers for test or analysis, investigation of cases of spurious drugs and related complaints and launching of prosecutions for breaches of the Drugs and Cosmetics Act, 1940 and Rules.

**Pay Scale:** Rs.9300-34800+Rs.4800(Grade pay) (T.E. Rs.19035)Group 'B' Gazetted

**Age limit as on normal closing date :** Not exceeding 30 years

**Scheme of Examination:-** 100 Question , 2 Hours

**Interview:-** Yes



# **HIMACHAL PRADESH PUBLIC SERVICE COMMISSION**

**Advertisement No. IX/2011 Dated : 27.11.2011**  
**Drugs Inspector in Health & Family Welfare, H.P**

**WEBSITE – [www.hp.gov.in/hppsc](http://www.hp.gov.in/hppsc)**

**Name of the Post:** Drug Inspector Class-II (Gazetted ) (On Contract Basis)

**Number of Posts:** 06 Posts

Age as on 1/1/2011:- 45 years and below Relaxation of Age Permissible as per Rules

**Contractual Amount :** Rs.14,500/- P.M.

**Scheme of Examination:-** Objective, 2 hr

Subject + GK – 100 Question

**Interview:-** 100 Marks

**Syllabus:-**

1. 80 Question on B.Parmacy level
2. 10 Question containing G.K of H.P
3. 10 Question consisting of G.K of National/International Level

**Essential Qualification:** Bachelor"s Degree in Pharmacy or pharmaceutical Chemistry or a post-Graduate Degree in chemistry with pharmaceutics as essential subject of an University established in India by the Law or its equivalent qualification recognized and notified by the Central Government for such purpose or the Associate ship Diploma of the Institution of Chemists (India) obtained by passing the Examination with "Analysis of Drugs and pharmaceuticals" as one of the subject.

OR

Bachelor"s Degree in Science or Graduate in Medicine of an University recognized for this purpose by the appointing authority and has had at least one year"s post-graduate training in a laboratory under (i) a Government Analyst appointed under the Act, or (ii) a chemical Examiner, or (iii) the head of an institution specifically approved for the purpose by the appointing authority,

Provided that only those Inspectors:-

- (i) Who have not less than 18 months experience in the manufacture of at least one of the substances specified in Schedule-C OR
- (ii) Who have not less than 18 months" experience in testing of at least one of the substances specified in Schedule –C in a laboratory approved for this purpose, by the licensing authority OR
- (iii) Who have gained experience of not less than three years in the inspection of firm manufacturing any of the substances specified in Schedule-C appended to these rules during the tenure of their service as Drugs Inspectors shall be authorized to inspect the manufacture of the substances mentioned in schedule –C

**Desirable Qualifications**

Knowledge of customs, manners and dialects of H.P. and suitability for appointment in the peculiar conditions prevailing in the Pradesh.



## **MAHARASHTRA PUBLIC SERVICE COMMISSION**

Advertisement No. 360/2013 Dated : 1.03.2013  
**Drugs Inspector in Food and Drug Administration, Maharashtra**

**WEBSITE - <http://www.mpsc.gov.in>**

**Name of the Vacancy:** – Drug Inspector

**Total No. of Vacancy:** – 05 Post for PH Candidates

**Educational Qualification:** – Applicants should have completed Bachelor Degree in Pharmaceutical Manufacturing Science or Chemistry discipline from any recognized Institution or University with at least good academic record.

**Salary:** – Rs. 9300-34800/- with Grade Pay Rs. 4400/- per month.

**Age Limit:** – Applicants age should not be more than 45 years as on 01st July 2013.

**Procedure of Selection:-** The Shortlisting of candidates for appointment to the posts will be made by written examination(objective) for eligible candidates.

## **MAHARASHTRA PUBLIC SERVICE COMMISSION**

Advertisement No. 052/2007 Dated : 21.12.2007 &  
Advertisement No. 069/2008 Dated : 29.07.2008  
**Drugs Inspector in Food and Drug Administration, Maharashtra**

**WEBSITE - <http://www.mpsc.gov.in>**

**Name of the Vacancy:** – Drug Inspector , Group-B

**Total No. of Vacancy:** – 48+ 48

**Educational Qualification:** – Applicants should have completed Bachelor Degree in Pharmaceutical Manufacturing Science or Chemistry discipline from any recognized Institution or University with at least good academic record.

**Salary:** – Rs. 6500-200-10,500/-

**Age Limit:** –Not More than 35 years

**Procedure of Selection:-** The Shortlisting of candidates for appointment to the posts will be made by written examination(objective) for eligible candidates. No negative marking for wrong answers

**Scheme of Examination:-** 150 Question , 1:30 Hours

**Interview:-** Yes

**Syllabus:-**

## **1) Physiology, Pathophysiology, Pharmacology and Toxicology (40 Marks):**

### **1.1 Physiology-**

- i) Composition / function of Blood elements,
- ii) Coagulation of blood,
- iii) Blood groups,
- iv) Blood components, manufacturing,
- v) Whole human blood (I.P.),
- vi) Blood bank- operation / requirements.

### **1.2 Pathophysiology-** STD, AIDS, Hypersensitivity, HBSAg.

**1.3 Pharmacology-** Factors modifying drug action, drugs affecting coagulation. Antihypertensive drugs, Antipyretic, Analgesic, Antitussive, Sedative, Hypnotics, Opioids, NSAIDS, Local Anaesthetics, Chemotherapeutic Agents including Anticancer drugs, Antifungal Agents, Drugs affecting CNS, Antidiabetic drugs, Contraceptive drugs, Hormones, Drugs acting on uterus.

### **1.4 Toxicology-** Classification of poison, chelating agent, heavy metals, antidotes.

**2) Microbiology (20 marks) :** Sterilisation procedure, Aseptic techniques, disinfections, pyrogens, LAL Test, Assay of antibiotics / vitamins, biochemical serological, virological techniques, BOD, different media, microbial drugs, drug resistance, microbial limit test, pathogenic organism of common occurrence.

## **3) Biochemistry & Chemistry of drugs / Pharmaceuticals (40 Marks)**

**3.1)** DNA, RNA, Nucleic Acid & components, enzymes, metabolism of protein, carbohydrate, lipids, recombinant technology and its application, immunological product-vaccine, sera.

**3.2)** Isomers, Tautomers, fermentation, synthesis of antibiotics, diazo reaction, chemistry of steroids.

**3.3)** Dosage forms, sustained release, dosage form, enteric coating, new drugs, parental drugs, Good manufacturing practices, Good laboratory practices, Routes of administration- Preservatives, suspending / emulsifying agents. Types of vehicles / types of waters, storage conditions for pharmaceuticals.

**3.4)** Principal and application of analysis, UV spectra / I.R./HPLC /GLC / Atomic absorption, HPTLC, LCMS, limit test, heavy metals, devices, sutures.

**3.5)** Surgical - Medical devices sutures

**3.6)** Law-DCC, DTAB, Misbranded, standard, spurious, Adulterated drugs definitions, Govt. Analyst duties, Inspector - power / procedure, definition schedule M/Y/ U

## **4) General Knowledge related to Pharmaceuticals / Medicine field (25 marks)-**

- 01) National Health Programme,
- 02) DPCO / NPPA,
- 03) Narcotic Drugs,
- 04) Poisons - Antidotes,
- 05) Essential Drugs,

- 06) Central Drug Authority
- 07) Neutraceuticals,
- 08) Magic remedies - Act and Rules,
- 09) Import of Drugs and Cosmetics,
- 10) Central Drug Laboratory,
- 11) WHO - GMP - entification,
- 12) Current event.
- 13) Consumer Protection Act,
- 14) Right to Information Act.

**5) Intelligence Test (25 Marks):** Questions will be asked to test how far candidates can think quickly and accurately. The candidates should note that the Screening Test will be conducted with a limited purpose of short-listing the candidates for interview. While assessing Objective type answersheets, no penalty marks will be deducted for wrong answers marked by a candidate in his answersheet. Only correct answers given by candidate will be considered for valuation purpose. The marks obtained in the Screening Test will be added to the Marks obtained in the interview to decided the final selection.

The candidates who have been admitted to the Screening Test will be informed by admission letter of the venue and the timetable of the Screening Test. Such letters will be issued by the Commission's Office well in advance. If however, candidates does not receive such letter before three days of the test, they should come personally to the Commission's office to obtain duplicate admission letter. Duplicate letters will be issued to only such candidates whose names are there in the list of admitted candidates. Neither any correspondence will be entertained in this connection nor duplicate letters will be sent by post. As far as possible, only the candidates who are eligible in terms of this advertisement & prospectus, will be admitted for the Screening Test. However, in case of a candidate whose eligibility is disputed, may be admitted provisionally subject to verification of his eligibility. If at any stage of selection it is found that the information given by a candidate in the application is false or wrong or that a candidate does not satisfy the conditions of prescribed qualifications for the post, his candidature for the examination will be cancelled. Candidates should appear for the examination at their own expenses.

**Viva - Voce and Personality Test :-** The candidates who will qualify in the Screening Test and who are eligible for the post according to the provisions mentioned in advertisement, will alone be called for interview by Commission.



# **DEPARTMENT OF HEALTH AND FAMILY WELFARE PUNJAB**

GOVT OF PUNJAB PUBLIC NOTICE- RERUITMENT FOR DRUGS INSPECTOR

**Public Notice:- 02/05/2016**

**WEBSITE - <http://www.pbnrhm.org>**

**Name of the Vacancy:** – Drug Inspector

**Total No. of Vacancy:** – 37

**Age Limit :-** 18 to 37 years

**Educational and other Qualifications for Drug Inspector:-** Should possess a degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a recognized University or institution:

Provided that only those inspectors:-

- i) Who have not less than 18 months experience in the manufacture of at least one of the substances specified in Schedule “C” of the Drugs and cosmetic Rules 1945; or
- ii) Who have not less than 18 months experience in the testing of at least one of the substances in Schedule “c” of the Drugs and cosmetic Rules 1945; in a laboratory approved for this purpose by the licensing authority; or
- iii) Who have gained experience of not less than 3 years in the inspection of farms manufacturing any of the substances in Schedule “c” of the Drugs and Cosmetic Rules 1945 during the tenure of their services as Drugs inspectors; Shall be authorized to inspect the manufacture of the substances mentioned in Schedule “c” of the Drugs and cosmetic Rules 1945.
- iv) Candidate must have passed Punjabi up to matriculation standard.

**Pay Scale:-** Rs. 10300/- - 34800/- with grade pay Rs. 4200

**Exam Pattern:- Objective Exam, 100 Marks**

Pharmacy Paper:- 80 Marks

Marks of rural background:- 5 Marks

Publication:- 2.5 Marks

Experience:- 2.5 Marks

Marks of Interview:- 10 Marks

**Interview:-** Yes

# **TAMIL NADU PUBLIC SERVICE COMMISSION**

Advertisement No. 298 Dated : 21.09.2012

## **Drug Inspector in Tamilnadu Medical Service**

**WEBSITE – <http://www.tnpsc.gov.in>**

**Name of Post:-** Drug Inspector

**Total No. of Vacancy:-**90

**Age as on 01/8/2011**

Sl. No.	Category of Candidates	Minimum Age	Maximum Age
1	SCs, SC(A)s, STs, MBCs/DCs, BCs, BCMs and DWs of all Castes	18 Years	Who have passed PTC/PUC / HSC / Diploma/ Degree - No Maximum Age Limit
2	"Others" [ i.e Candidates not belonging to SCs, SC(A)s, STs, MBCs/DCs, BCs and BCMs]	18 Years	30 Years

### **Educational Qualification:-**

Name of the Post	Qualification	Experience
Drugs Inspector	A Degree in Pharmacy <b>or</b> A Degree in Pharmaceutical Sciences <b>or</b> A Degree in Medicine with Specialization in Clinical Pharmacology <b>or</b> A Degree in Medicine with Specialization in Microbiology.	Nil

### **Note:**

(i) The Degree qualification prescribed should have been obtained after passing the 10<sup>th</sup> and HSC.

### **Procedure of Selection:-**

1. Written Test
2. Oral Test in the shape of an interview

**Scheme of Examination:-** Objective Examination(300 Marks) and Interview (40 Marks)

Single Paper in any one of the following Subjects:-

- i) Pharmacy / Pharmaceutical Sciences (Code No.092)**  
(Degree Standard) (200 Questions)
- ii) Clinical Pharmacology (Code No.161)**  
(P.G.Degree Standard ) (120 Questions)
- iii) M.D. Micro Biology (Code No.159)**  
(P.G. Degree Standard ) (120 Questions)

# **GUJARAT PUBLIC SERVICE COMMISSION**

Advertisement No. 121/09-10 Date:- 22.11.2008

**Drug Inspector in Department of Health & Family Welfare, Gujarat**

**WEBSITE - <http://gpsc.gujarat.gov.in>**

**Name of Post:-** Drug Inspector

**Total No. of Vacancy:-** 16

**Scheme of Examination:-** Objective Type Examination

**Pharmacy:-** 100 Question (200 Marks)

**Interview:-** Yes

**1. PHARMACOLOGY :-** 1. Drug-Drug Interaction. 2. Barriers affecting drug transportation. 3. Targetted Drug delivery. 4. Effect of food on bio-availability. 5. Routes of administration of drug & their advantage and disadvantage. 6. Facts which modify drug action. 7. Clinical Pharmacy. 8. Hospital Pharmacy. 9. Cardiovascular Drugs, Diuretic, Anti-ulcer Antihypertensive, antidiabetic, betablockers, ACE Inhibitors, anti-cancer drugs, Vitamins, Plasma Volume Expander, Hormones. 10. Toxicity study.

**2. PHARMACOGNOSY:-** 1. Identification of Herbal drugs-Morphology, Microscopy, Chemical Markers. 2. Isolation of active chemical constituents from herbal drugs. 3. Preservation of natural products. 4. Distillation, Extraction, Supercritical Fluid Extraction.

**3. ANALYTICAL CHEMISTRY :-** 1. spectroscopy (IR/FIIR, U.V.,) Chromatography (TLC.Gas,HPLC, HPTLE). Assay - Calorimetry, Argentometry, Potentiometry. Iodimetry, Oxidation - mReduction. Advances in Pharmaceutical Analysis, Differential Scanning Calorimeter. X-ray diffraction (XRD). Scanning Electron Microscopy (SEM) Optical Microscopy.

**4. QUALITY ASSURANCE:-** GMP/GLP/Documentation Validation/Calibration.

**5. FORENSIC PHARMACY:-** Drugs & Cosmetics Act. Drugs & Magic Remedies (Objectionable Advertisement Act. Prevention of Food Adulteration Act.(PFA).

**6. MEDICINAL CHEMISTRY :-** 1. Drug Design - QSAR - Molecular Modeling. 2. Drug Metabolism - Drug Receptor Action, Protein binding. 3. Drugs Acting on CNS:- (i) Hypnotic Sedatives (ii) Anxiolytic Agents (iii) Analgesics - Opioid (iv) Tranquilisers (Antipsychotic Agents) 4. Nonsteroidal Antinflammatory drugs 5. Drugs Acting on CHS :- (i) Diuretics (ii) Cardiotonic Agents (iii) Antihypertensive Agents (iv) Antianginal Agents. 6. Antihistamines 7. Drugs Affecing sugar Metabolism. 8. Chemotherapeutic Agents :- (i) Sulphonaluides (ii) Quinolone Antibacterials (iii) Antibiotics (iv) Anti T.B. (v) Antiprotozoal - Antimalarial, Antiamoebic. 9. Hormones:- (i) Sex Hormones (ii) Adrenal Cortex Hormones (iii) Thyroid Hormones. 10. Antineoplastic Agents. 11. Antiviral agents - Anti HIV Agents, 12. (a) Solvent Extraction. (b) Chromatography :- (i) Paper Chromatography (ii) Thin layer Chromatography (TLC) (iii) Gas Liquid Chromatography (GLC) (iv) Colum Chromatography (v) High Performance Liquid Chromatography (HPL.C). (c) UV - Visible spectroscopy (d) Infra Red. (e) Spectrofluorometry (f) X-ray Analysis (g) Radioimmune Assay (RIA) (h) Potentiometry (i)

Conductometry (j) Flam Photometry (k) Non-aqueous titrations Karl-Fisher reagent (i) Application of instruments analysis to Pharmaceutica Analysis. Examples from Pharmacopoeia.

**7. PHARM. JURISPRUDANCE :-** (1) Pharmaceutical Jurisprudence (2) Solid Dosage form : Tablets, Capsules (3) Liquid: Syrup, Suspension, Emulsi, Extract (Herbal Drugs) (4) Genisole : Cream, Ointment (5) Aerisols (6) Cosmetics (7) Parenterals - LVP, SVP (8) Pharmacokinetics :- a) Factors affecting bioavailability b) Method of establishing in-vivo and in-vitro corelationship c) Estimation of Pharmacokinetic parameters and determination of AVL (9) General aspects of Pharmaceutical Technology (10) Stability Testing.

**8. PHARMACEUTICAL CHEMISTRY :-** 1. Drugs Isolated from natural sources 2. Mechanism of Drug action. 3. Oxidation, Reduction, Sulfonation, Nitration. 9. PHARMACEUTICAL SCIENCES :- Natural products: Chemistry, tests, uses and mode of action of cardiac glycosides, alkaloids, purines and terpenes. Pharmacognosy of senna, Digitals, Cinnamon, Rauwolfia Ergot, Opium, Clove, Belladonna Ginseng.

**10. MEDICINAL CHEMISTRY AND PHARMACOLOGY :-** A) Pharmacotherapeutic Agents: Structure, nomenclature, uses, mechanism of action and structure activity relationship of drugs belonging to the categories of neuroleptics, antidepressants, anxiolytics, antihypertensives, antiarrhythmics, vasodilators, diuretics, analgesics, antihistamines. Preparation and storage of official radiopharmaceuticals. B) Chemotherapeutic Agents, Structural formulae, classification nomenclature, uses, mechanism of action and structure-activity relationship of drugs belonging to the categories of sulphonamides, anticancer drugs, antibiotics, antiamoebic agents, antiviral drugs, antitubercular drugs, anthelmintics. C) Drug Synthesis: Synthesis of drugs which are official in Indian and British Pharmacopoeia belonging to the categories of local anesthetics, barbiturates, anticonvulsants, antihistamines, tranquilisers, synthetic hormones, antihypertensives, diuretics, vasodilators.

**11. PHARMACEUTICS:-** a) Technology of Drug Delivery Systems: Manufacture, standards, presentation, labelling, packing and storage of formulations belonging to the categories of parenterals, tablets, capsules, aerosols, liquid orals, ophthalmic preparations and new drug delivery systems. Basics of pharmacokinetics and their importance in formulation. b) Pharmaceutical Jurisprudence: Legal aspects of manufacture, storage and sale of drugs. Pharmacy Act.

**12. PHARMACEUTICAL ANALYSIS:-** Principles and applications of the following: Absorption spectroscopy, chromatography, potentiometry, conductometry and polarography. Pharmacopoeial assays. Principles of NMR and mass Spectroscopy.

**13. BIOCHEMISTRY, BIOPHARMACEUTICALS AND CLINICAL PHARMACY:-** Drug distribution and metabolism. Absorption and bioavailability of drugs. Biochemical role of hormones, vitamins, enzymes and nucleic acids. Principles involved and apparatus used in the analysis of blood, urine, gastric juice, feces etc. Clinical aspects of Pharmacy and drug interaction. General principles of immunology. Immunological techniques used in Pharmacy.

**14. MICROBIOLOGY:-** Classification of different microbes, Microbial flora of human pathogenicity. Methods used for identification. Sterilization of different pharmaceutical dosage forms. Sterility testing. Methods of preparation of official sera and vaccines. Serological and diagnostic tests. Principles and methods of microbiological assays of the pharmacopoeia. Applications of microorganisms in bioconversions and Pharmaceutical industry.

# **JHARKHAND PUBLIC SERVICE COMMISSION**

Advertisement No. 20/2011 Date:- 09/2011

**Drug Inspector in Drug Control Administration Ranchi affiliated to Health & Family Welfare  
Department, Jharkhand**

**WEBSITE – <https://www.jpsc.gov.in>**

**Name of Post:-** Drug Inspector

**Total No. of Vacancy:-** 59

**Scale of Pay:-** Rs. 9,300 -34,000/- + 5400/-Grade Pay

**Qualifications of Inspectors :-** A Person who is appointed an Inspector under the Act shall be a person who has a degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a University established in India by law.

Provided that only those Inspectors :-

(i) who have not less than 18 months' experience in the manufacture of at least one of the substances specified in Schedule C; or

(ii) who have not less than 18 months' experience in testing of at least one of the substances in Schedule C in a Laboratory approved for this purpose by the licensing authority; or

(iii) who have gained experience of not less than three years in the inspection of firms manufacturing any of the substances specified in Schedule C during the tenure of their services as Drugs Inspectors;

Experience of only a government /Public Sector Pharmacy / NABL accredited laboratory /GMP accredited manufacturing factory will be admissible Experience certificate must be issued by the Director/Maintaining Director/ HR head bearing the organizations address and duly signed by competent authority shall be entertained.

**Scheme of Examination:-** Objective Type Examination

**Pharmacy:-** 500 Question (500 Marks)

- Pharmaceutics
- Microbiology
- Pharmacology
- Pharmaceutical chemistry
- Pharmaceutical Jurisprudence

**Interview:-** Yes, but in next notification they exempt Interview.



# **RAJASTHAN UNIVERSITY OF HEALTH SCIENCES, JAIPUR**

ORDER NO.P9(24)(M&H)/2/2011 dated 03.07.2013

DRUG CONTROL OFFICER RECRUITMENT EXAMINATION 2013

WEBSITE - [www.ruhsraj.org](http://www.ruhsraj.org)

**Name of Post:- DRUG CONTROL OFFICER**

**Total No. of Vacancy: -20**

**Scale of Pay:- Rs. 15,600 -39,100/- + 5400/-Grade Pay**

**Age limit :** Minimum 21 years and maximum 45 years (as on the date of DCO Recruitment Examination 2013).

## **Educational Qualification :**

- i) A Degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology from a University established in India by Law as prescribed in Rule 49 of the Drugs and Cosmetics Rules 1945.
  - ii) Knowledge of Hindi language in devnagri script (lipi) – to read, to write and to speak
- Other qualification : Knowledge of Hindi language in devnagri script (lipi)

**Scheme of Examination:-** Objective Type Examination

## **Paper Pattern and Syllabus:-**

The Examination will be conducted online. There will be 100 multiple/objective type questions of one mark each. The duration of Exam is of 2 hours. There is no negative marking in the exam. As there is no negative marking the candidates can try to attempt all the questions without any fear.

## **Syllabus:-**

### **1.NATURAL PRODUCTS**

Pharmacognosy of Senna, Digitalis, Clove, Cinnamon, Rauwolfia, Ergot, Belladonna, Vinoa, Ginseng, Opium and Gelatin. Chemical nature of the active constituents, tests and mode of action of these drugs.

### **2. PHARMACEUTICS**

Technology of Drug delivery system, Biopharmaceutics, Pharmaceutical legislation.

Technology of Drug delivery system: Manufacture, Standard, labeling, packing and storage of dosage forms like tablets, capsules, liquid orals, injectables, topical preparation, blood products and plasma substitutes, sustained release dosage forms and novel drug delivery systems.

Sterilisation: Different methods of sterilization and sterility testing of pharmaceuticals.

Basis of pharmacokinetics and their importance in formulation, Bioavailability, Bioequivalence, Stability studies.

Drugs and Cosmetics Act and Rules, Pharmacy Act, Narcotic and Psychotropic substances Act, Essential Commodities Act and Drugs (Price Control) Order

### **3. PHARMACEUTICAL ANALYSIS**

Principle and application of absorption spectroscopy, chromatography, potentiometry, non-aqueous, complexometry with reference to drugs given in Indian Pharmacopoeia. Microbiological assays and biological standardisation of antibiotics and vitamins as per I.P.

#### 4. PHARMACOTHERAPEUTIC AGENTS AND CLINICAL PHARMACOLOGY

Nomenclature, synthesis, uses, mechanism of action, DAR and metabolism of drugs belonging to the following categories which are official Indian Pharmacopoeia.

Neuroleptics and tranquilisers, antihypertensives, antiarrhythmics vasodilators, diuretics, antibiotics, analgesics and anti-inflammatory drugs, antihistaminics antineoprotics, antiamebics, oral contraceptives, antituberculars and antileptotics, antimalarials, insulin and other antidiabetics, corticosteroids, antiulcer antiasthemetics.

Clinical aspects of pharmacy and pharmacology, drug interactions.

Basic concepts of drug metabolism:

Evaluation of drugs in human beings/clinical trials.

Drug therapy in paediatrics, geriatrics and during pregnancy

Radioisotopes in medical practice, Biological effects of radiation.

#### 5. MICROBIOLOGY AND BIOTECHNOLOGY -

Classification, cultivation, isolation, identification and nutritional needs of bacteria, viruses, protozoa and fungi, Microbial genetics and variations, Theoretical aspects of immunity, sources and mode of infection, general methods of preparation, standardisation, preservation, storage and uses of Vaccines, Sera and diagnostic agents, Antigen-antibody reactions, Microbacterium-Tuberculosis, Leprosy-Salmonella, Shigella spirochaetes, mycoplasma, diarrhoeal diseases, ELISA, Bacteriology of water, milk and food. Drug sensitivity test for Bacteria.

Fermentation technology: production of alcohols, acetic acid, citric acid, penicillin, tetracycline.

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# **CG VYAPAM FDA RECRUITMENT**

**DRUG INSPETOR EXAMINATION 2015**  
**WEBSITE - [www.cgvyapam.choice.gov.in](http://www.cgvyapam.choice.gov.in)**

**Name of Post:- DRUG INSPECTOR**

**Total No. of Vacancy: -91**

**Scale of Pay:- Rs. 9300 -34,800/- + 4300/-Grade Pay**

**Age Limit :** Candidate should be above 21 years and below 30 years.

**Educational Qualifications :** Candidate should have degree in Pharmacy or Pharmaceutical Sciences or Medicine with specialization in Clinical Pharmacology or Microbiology.

Experience:- No Need

Total Number of Question:- 150, 150 Marks, 3 Hours

## **Pharmacy**

**Total Question :- (60 + 30)**

Total Marks:- 60.

- Pharmaceuticals Ethics
- Pharmacy Act 1948
- Drugs and Cosmetics Act and rules 1940
- Narcotic Drugs and Psychotropic Substance Act and Rules, 1985
- Drugs (Prices Control) Order 2013
- Medicinal and Toilet Preparation (Excise Duties) Act and Rules, 1955
- Patents & Designs Act, 1970
- Drugs and Magic Remedies Act and Rules 1954.
- INDA, FDA, WHO, ICH, EMEA and OECD regulatory guidelines.
- Medical termination of Pregnancy Act 1970 and Rules 1975
- Insecticides Act 1968
- Factories Act - 1948
- Minimum Wages Act - 1948
- Patents Act
- Trade and Merchandise Act
- Industrial Regulation Act (Pollution)
- Prescription/non - Prescription Products
- Medical/Surgical accessories
- Diagnostics aids, application available in the market

## **Rest of the topics**

Total Marks:- 30.

- Microbiology/Basic techniques of microbiology
- Microbiology/Food microbiology
- Microbiology/Bacteriology
- Microbiology/general microbiology

- Pharmacology/Contraindication
- Pharmacology/Formulations
- Pharmacology/Mechanism of action
- Pharmacology/Synergetic Effect/Synergism
- Pharmaceutical sciences/Pharmaceutics
- Pharmaceutical sciences/Biopharmaceutics
- Pharmaceutical sciences/Physical Pharmaceutics

**General Awareness**

**Total Question :- 60.**

Total Marks:- 60.

This part will have question on current affairs of Local National and international importance, Indian politics, Constitution of India, issues related to agricultural commerce, health, panchayati raj, institution, urban local bodies, Socio-cultural history, ecology, environment, economic, geography of India with special reference to the state of Chhattisgarh. This segment will have questions from statistics and current general knowledge including scientific discoveries and inventions.

## **CHHATTISGARH PUBLIC SERVICE COMMISSION**

Advertisement No. 12/2008

**Drug Inspector in Health & Family Welfare Department, C.G**

**WEBSITE – <http://psc.cg.gov.in>**

**Name of Post:- DRUG INSPECTOR**

**Total No. of Vacancy: -16**

**Scale of Pay:- Rs. 15,600 -39,100/- + 5400/-Grade Pay**

Exam Date:- 08/11/2009

**Educational Qualification :**

Should possess the qualification prescribed for appointment as Drugs Inspector under the Provisions of rule 49 of Drugs and Cosmetics Rule, 1945.

A person who is appointed an Inspector under the Act shall be a person who has a degree in Pharmacy or Pharmaceutical Sciences or Medicine with Specialisation in Clinical Pharmacology or Microbiology from a University established in India by law.

**Scheme of Examination:- Objective Type Examination**

**Paper Pattern and Syllabus:-**

- Pharmay (B.Pharm Syllabus same as CSVTU) – 60 Question
- C.G GK- 20 Question
- Reasoning and Maths – 20 Questions

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