



**PUNJAB POLLUTION CONTROL BOARD**  
VATAVARAN BHAWAN, NABHA ROAD, PATIALA

Advertisement No. Admn./SA-1/F.No.832/2011/(1)

Eligible applicants are invited to personally submit online applications on all days during **June 27<sup>th</sup> 2011 to July 18<sup>th</sup>, 2011 (up to 5.00 p.m.)** in the prescribed online format available at [www.thapar.edu](http://www.thapar.edu) for the following categories of posts with payment, mode as prescribed:-

**Application Fee:**

General: Rs. 500/-(Five Hundred Only)

SC/ST: Rs. 125/-(One Hundred Twenty Five Only)

**Mode of Payment:-**

Application fee to be deposited through a bank Demand Draft (DD) drawn in favour of

**"Coordinator, Entrance Test for PPCB"** payable at Patiala.

The details of the posts, qualifications, category of persons are as under:

<b>1</b>	<b>Assistant Environmental Engineer</b>	35 Posts	07 = Scheduled Caste 03 = Backward Classes 05 = Ex-serviceman (2 SC & 3 General) 02 = Sportsman (1 SC & 1 General) 01 = Deaf / Partial Deaf 17 = General Category  Scale of Pay (Rs. 15600-39100/- + 5400/- Grade Pay)*
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**Qualifications:**

Degree in Civil / Chemical / Environmental Engineering, in first division from a recognized University or Institution.

**Desirable:**

- (i) Experience in pollution control;
- (ii) Master's Degree in Engineering (Public Health / Chemical / Environmental)

**Knowledge of Computer:**

The candidate must have undergone a computer course of six months duration from a reputed institute.

<b>2</b>	<b>Junior Environmental Engineer</b>	7 Post	03 = Scheduled Caste 01 = Backward Classes 01 = Ex-serviceman 02 = General Category Scale of Pay (Rs. 10300-34800/- + 3800 Grade Pay)*
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**Qualifications:**

At least 1<sup>st</sup> class in three years Diploma in Civil / Environmental or Chemical Engineering from a recognized University / Institution.

**Knowledge of Computer:**

The candidate must have undergone a computer course of six months duration from a reputed institute.

<b>3</b>	<b>Scientific Assistant</b>	9 Post	03 = Scheduled Caste 01 = Backward Classes 01 = Ex-serviceman 04 = General Category Scale of Pay (Rs. 10300 - 34800/- + 3200 Grade Pay)*
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**Qualifications:**

Atleast B.Sc. degree or M. Sc. degree in Basic Sciences or Life Sciences or Environmental Science or Microbiology from a recognized University / Institute.

**Knowledge of Computer:**

The candidate must have undergone a computer course of six months duration from a reputed institute.

**Note:** The candidates applied earlier for the post of Scientific Assistant against advertisement given in August 2008 by the Board need not to apply again as the same shall be considered. However, they are required to submit a copy of their earlier deposited form along with a DD of the balance amount as per details below:

**General Category:** Rs. 400/-

**S.C./S.T./** Rs. 100/-

**General Information regarding entrance test:**

- 1 Entrance Test shall be conducted at Patiala only.
- 2 The duration of the entrance test shall be 2 hours.
- 3 The time of start of examination shall be given on the Hall ticket for entrance test.
- 4 The paper will contain 100 questions. All the questions shall be multiple-choice objective type in nature.
- 5 There will be negative marking. 1/4 marks shall be deducted for every wrong answer.

**Mode of Selection:**

The recruitment shall be strictly made to respective categories only on merit, on the basis of the merit of the entrance test. The syllabus for entrance test will be as under;

**SYLLABUS FOR ENTRANCE EXAMINATIONS**

**1. ASSISTANT ENVIRONMENTAL ENGINEER**

**Section-I: Analytical Ability and General Knowledge (20 Marks)**

The questions in this section will cover logical reasoning, quantitative reasoning, and visual-spatial reasoning along with some questions related to general knowledge/current affairs.

**Section – II: Computer Ability (10 Marks)**

The questions in this section will cover basic applications of computers, proficiency in using windows, MS office etc.

**Section – III: Professional (70 Marks)**

**Thermodynamics:** Laws of conservation of mass and energy; degree of freedom, first and second laws of thermodynamics and their applications.

**Fluid Mechanics:** Fluid statistics, Bernoulli equation, macroscopic friction factors, dimensional analysis, flow through pipeline systems, flow meters, pumps and compressors, packed and fluidized beds, size reduction and size separation free and hindered settings; centrifuge and cyclones ; thickening and classification, filtration, mixing and agitation, conveying.

**Interaction between humans and environment:** The physical environment- land water, and climate; Resources and their management - Natural, technological and human; Concept of sustainability- natural ecosystems and sustainability; Agricultural and Industrial systems from the angles of environment protection; Treatment of water- sedimentation, coagulation; filtration; chlorination; absorption; adsorption, and

miscellaneous methods; Sewage and sewerage systems; Primary and Secondary treatment of sewage- aerobic and anaerobic processes and their applications in the

waste water treatment. Environmental ethics, climatic change, wasteland reclamation, environmental protection acts and issues.

**Pollution:** Definition, causes, effects and control measures of the pollution – air, soil, noise, water, marine and thermal and nuclear pollution, solid waste management, role of Individual in prevention of pollution, disaster management.

## **2. JUNIOR ENVIRONMENTAL ENGINEER**

### **Section-I: Analytical Ability and General Knowledge (20 Marks)**

The questions in this section will cover logical reasoning, quantitative reasoning, and visual-spatial reasoning along with some questions related to general knowledge/current affairs.

### **Section – II: Computer Ability (10 Marks)**

The questions in this section will cover basic applications of computers, proficiency in using windows, MS office etc.

### **Section – III: Professional (70 Marks)**

**Fluid Flow and Mechanical Operation:** Flow of incompressible Fluids, Laminar and Turbulent Flow in Pipes, Frictional Losses in pipes.

**Flow Measurement:** Pitot tube, Orifice meter, Venturimeter, Rotameter, and Weir & Notches.

**Interaction between humans and environment:** The physical environment- land water, and climate; Resources and their management- Natural, technological and human; Concept of sustainability- natural ecosystems and sustainability; Agricultural and Industrial systems from the angles of environment protection;

**Water supply and Water Treatment:** Sources of water, Water treatment, Types of pipes, laying of pipes. Quality of sewage, laying of sewers, Building drainage and rural sanitation.

## **3. SCIENTIFIC ASSISTANT**

### **Section-I: Analytical Ability and General Knowledge (20 Marks)**

The questions in this section will cover logical reasoning, quantitative reasoning, and visual-spatial reasoning along with some questions related to general knowledge/current affairs.

### **Section – II: Computer Ability (10 Marks)**

The questions in this section will cover basic applications of computers, proficiency in using windows, MS office etc.

### **Professional (70 marks)**

**Physical and Chemical Science:** Water - physical characteristics, buffering capacity, Essential and trace elements in living systems, Natural and synthetic polymers and their use, Bio-molecules - chemical components of cell, Bio-geochemical cycles – carbon, nitrogen and phosphorus, Hydrological cycle and global water balance, Toxicity of Heavy metals. Chemical equilibrium, acid base reactions, solubility product, solubility of gases in water, the carbonate system, unsaturated and saturated hydrocarbons

**Pollution and its types:** Atmospheric pollution: causes, consequences and control, Aquatic pollution: causes, consequences and control, Lake types, Primary, secondary and tertiary treatment of sewage, sewage treatment plant, Land pollution: causes, consequences and control, Management of solid wastes, Forest degradation and conservation measures, Water borne diseases, Pesticide problem.

**Mathematical Science:** Measures of central tendency: Mean, Median and Mode, Statistical methods; mean deviation; coefficient of variation and standard deviation, Correlation and Regressions, Probability

**Instrumentation and Chemical Analysis:** Quantitative Analysis: Volumetric or Gravimetric, Thin Layer Chromatography, Paper Chromatography: Ascending and Circular, Electrochemistry, Refractometry, Polarimetry, Colorimetry, Solvent Extraction, Ion exchange method.

**The candidates belonging to Rural Areas will be given additional 5 (five only) marks as per instructions of the Government of Punjab, Deptt. of Personnel (PP-2 Branch), Chandigarh letter no. 12/21/2010-1PP2/ 580 dated 4/4/2011.**

**\* Special Conditions:**

1. The selected candidates will be governed by the provisions of the Punjab Civil Services (Rationalisation of Certain Conditions of Service) Act, 2011 (Punjab Act No. 8 of 2011) and will be initially inducted with the service of the Board for a period of three years.
2. During the period of induction, the selected candidates shall be entitled to receive all-inclusive fixed monthly emoluments equal to the minimum of the pay band of the post to which he/she is appointed, but he/she shall not be entitled to receive the grade pay, if any, attached to the post.

**General Conditions:**

1. The candidates applying for post must ensure that they fulfill all the eligibility conditions. If on verification at any time before or after appointment, it is found that they do not fulfill any of the eligibility conditions or it is found that the information furnished is false or incorrect their candidature will be cancelled.
2. Reservation under Ex-Serviceman quota is admissible to the bonafide Ex-Serviceman or their dependants. Such Ex-Serviceman/dependant, before issue of appointment letter shall have to produce a certificate issued by the Competent Authority appointed by the Government.
3. Candidate seeking reservation under Sports quota before the issue of appointment letter, shall have to produce a certificate that he/she belongs to the State of Punjab. He/she shall also be required to produce before issue of appointment letter a certificate indicating that he/she has won 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> position in a team or individual events in the State Level Championship in any of the discipline affiliated to Punjab Olympic Association organized by the State Level Federation. In case of reputed Non-Olympic disciplines such as Cricket and Tennis, a winner should have attained any of the 1<sup>st</sup> three positions in the State Level Association affiliated to the concerned National Federation. The sports certificate duly graded by the Director of Sports, Punjab shall be a pre-requisite for issue of appointment letters in the case of candidate who applies under Sports quota category.
4. Candidate seeking reservation meant for the members of Scheduled Caste/ Backward Classes shall have to produce Scheduled Caste Certificate/Backward Class Certificate as applicable as prescribed by the State Government issued by the Competent Authority before the issue of appointment letter.
5. Candidate belonging to Rural Areas shall have to produce Rural Area Certificate as prescribed by the State Government issued by the Competent Authority before the issue of appointment letter.
6. Candidate seeking reservation under Handicapped quota shall have to produce a medical certificate of 40% permanent/partial disability of upper or lower extremity, deformity but otherwise fit for civil employment against the post applied for issued by the Competent Authority before issue of appointment letter. This certificate must be issued by the following authorities:
  - (a) Class-I Medical Officer of any Government Medical Institution/Hospital
  - (b) PMO, CMO/Civil Surgeon of the District or place of which the applicant is permanent resident.
7. The candidates must have passed Matriculation Examination with Punjabi as one of the compulsory or elective or any other equivalent examination in Punjabi Language.

8. **Age Limit:** 18-37 years as on 18/07/2011. Relaxation in age limit will be given as per policy of the Punjab Government.
  - (a) Relaxation in age by five years for S.C./S.T. and other Backward Classes.
  - (b) To the extent of 10 years for Physical Handicapped persons on production of medical certificate from the Competent Authority.
  - (c) Ex-Servicemen as per Punjab Recruitment of Ex-Servicemen Rules, 1982 as amended from time to time.
  - (d) 45 years of persons already in the employment of Punjab Government, other State Government or the Government of India.
9. In service candidates may apply directly but only those Government employees shall be eligible to be issued appointment letters who are certified by the Head of the Department as not having any pending disciplinary proceedings or undergoing punishment under Punjab Civil Services (Punishment & Appeal) Rules, 1970, or any other applicable rules, as the case may be, not undergoing any trial/ prosecution or any other material disqualification in terms of integrity and professional misconduct.
10. The candidate must possess prescribed education qualification and professional qualification for the post applied for on or before the last date of receipt of applications.
11. Lower and Upper age shall be determined as on 18<sup>th</sup> July 2011.
12. The calculation details of reserved posts indicated in this advertisement may marginally change in view of Punjab Government instructions. 50% reservation of vacancies of the quota reserved for Schedule Caste shall be offered to Balmikis and Mazhbi Sikhs, if available, as a first preference from amongst the Schedule Caste as per the Punjab Schedule Castes and Backward Classes (Reservation in Services) Act, 2006.
13. **The Competent Authority reserves the right not to fill up any or all the posts without assigning any reason. The number of posts is likely to be decreased or increased without any notice.**

**How to apply Online:**

1. Candidate can apply online from anywhere where there is an access to the Internet.
2. **Before submitting the online application, prepare a Demand Draft of requisite amount (in favour of "Coordinator, Entrance Test for PPCB" payable at Patiala).**
3. **Complete the form available on the website [www.thapar.edu](http://www.thapar.edu) by clicking at the link "Recruitment of various posts for Punjab Pollution Control Board".**
4. Every successful registration will be allotted a **Registration No.** printed on the acknowledgement slip.
5. Get a print out of the successful registered application form.
6. Paste a latest photograph on the print out and send it to **Coordinator, Entrance Test for PPCB, Thapar University, Patiala – 147004**, along with DD of requisite amount and two additional photographs.
7. Incomplete form or forms filled with wrong information will stand automatically cancelled/ rejected and shall not be considered for further processing.
8. Candidates may apply for more than one post by submitting separate application for each post along with separate processing fee.
9. For any help, please contact us at [etppcb2011@gmail.com](mailto:etppcb2011@gmail.com).
10. Only Online registered application forms will be entertained.

**NOTE:**

1. Candidates will be called for original documents inspection as per category wise merit list with 50% extra waiting list on an appointed day in person before a high level committee at a specified place before issue of appointment letters. Failure of any candidate to come personally with all complete original documents shall lead to forfeiture of his claim and the next candidate on merit shall be considered their and then. There shall be NO EXTENSION OF DATE WHATSOEVER UNDER ANY CIRCUMSTANCES.
2. The recruitment SHALL BE MADE SUBJECT TO 100% VERIFICATION of DEGREES & CERTIFICATES from issuing authorities within six months and SHALL BE LIABLE TO BE DECLARED NULL AND VOID ABINITIO WITHOUT ANY NOTICE WHATSOEVER IN CASE ANY DOCUMENT IS FOUND FAKE OR FORGED. The department shall also without fail launch against such candidates suitable criminal proceedings besides civil proceedings to make recoveries of salary and other emoluments paid to such candidates.

**Member Secretary  
Punjab Pollution Control Board**



