

**AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF
e-GOVERNANCE INITIATIVES**

A Project Report

On

RECRUITMENT OF CONSTABLES OF UP POLICE:

USE OF ICT FOR ENSURING TRANSPARENCY, ACCURACY & EFFICIENCY

By



UP Police Recruitment & Promotion Board

19-C, Tulsi Ganga Complex, Vidhan Sabha Marg,
Lucknow

Submitted for

**AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF
e-GOVERNANCE INITIATIVES**

Under

**CATEGORY (X) - INNOVATIVE USE OF ICT BY STATE GOVERNMENT
PSUs'/ COOPERATIVES/ FEDERATIONS/ SOCIETIES**

August, 2014

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

NAME OF CATEGORY- (X) INNOVATIVE USE OF ICT BY STATE GOVERNMENT PSUs'/ COOPERATIVES/ FEDERATIONS/SOCIETIES

1. Coverage – Geographical and Demographic:-

(i) Comprehensiveness of reach of delivery centres:

The project envisaged delivery of recruitment related services to candidates through internet portals. Hence, the coverage was available to prospective candidates through any private or public internet access point.

(ii) Number of delivery centres:

1. Part of the application relating to the **online submission of application forms** was hosted on the servers of UP State Data Centre, Lucknow.
2. Further services relating to communication and **participation of candidates in evaluation process** of answer sheets were hosted on a third-party server.
3. 'Mobile Seva'- the mobile governance initiative of DeitY, GOI was used for effective, **targeted communication with candidates**.

(iii) Geographical

(a) National level – Number of State covered

All 28 States of India

(b) State/UT level- Number of District covered

All 75 Districts of UP

(c) District level- Number of Blocks covered

Not Available

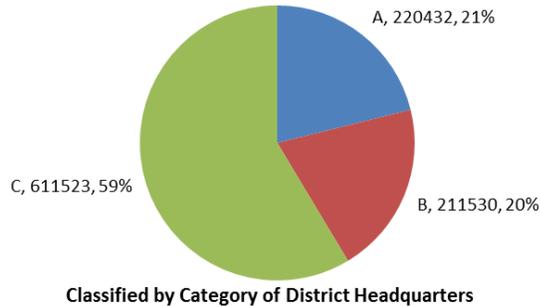
Please give specific details:-

During the application window from 20 June, 2013 to 20 August, 2013, a total of 10,53,013 candidates applied through the traditional OMR Forms and 11,71,680 candidates took advantage of the online process. Thus, out of a total of 22.24 lakh candidates, **more than half (52.6%) of the candidates availed of the online filing facility for the applications.**

It is significant to note that out of 10,44,695 residents of UP who applied online, 21% belonged to Category 'A', 20% to Category 'B' and 59% to Category 'C' districts. These figures indicate that the process has particularly benefited candidates from smaller and rural districts.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

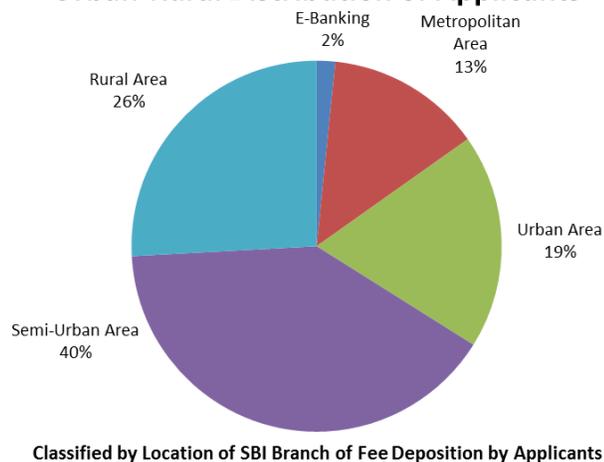
Geographical Distribution of Applicants in UP



The online application filing process also **benefitted 1,27,010 non-resident of UP candidates, who belong to all the other 28 States and 7 Union Territories of the country** who would have found it extremely difficult to apply through the traditional process administered through only Post Offices within the State of UP. Thus, the selection process has become truly national in character.

The online application process permitted applicants to deposit their fee at any branch of State Bank of India or Punjab National Bank anywhere in the country. An analysis of location of the SBI branch of fee deposition by applicants revealed that more than 85% of the applicants submitted fees at urban, semi-urban or rural areas- a clear indication of the fact that the online process was effective in the inclusion of non-metropolitan population effectively.

Urban-Rural Distribution of Applicants

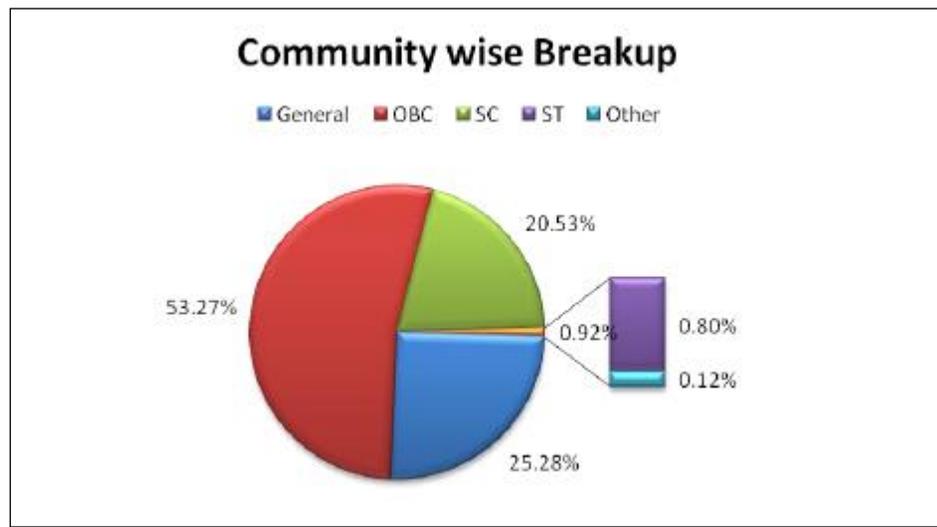


AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(iv) Demographic spread (percentage of population covered)

All eligible candidates from all strata of Indian society were covered. It is noteworthy that more than 11.71 lakh candidates from all 28 States and 7 UTs of the countries applied for the recruitment through the online delivery channels.

A category-wise break up of applicants is as follows. All candidates not resident of UP are categorized as 'General'.



2. **Situation Before the Initiative** (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project) :

1. Application Form Submission Process: During previous recruitment processes, the Board administered the application form submission process only in the traditional mode. Application Kits containing OMR Application Forms were distributed through a network of selected 2 or 3 Post Offices in each district of the State. The candidates needed to visit the Post Offices to buy the form, fill it, and then again submit it at the same post office. The following difficulties were encountered during administration of this process in the recruitment of 35000 Constables in 2009:

1.1 It was difficult to estimate the number of forms to be printed. Initially 5 lakh forms were printed. The printing of forms required about 2 months. They fell extremely short of demand, and shortage of forms led to crowding and law and order problems at post offices. At some places, local police had to use lathi-charge to contain the situation. Then, in different stages 27 lakh additional forms were printed, submission period was required to be extended. Finally, only 9 lakh forms were used, resulting into wastage of about 18 lakh forms, and associated time and costs.

1.2 The one month application window was extended due to shortage of forms. Post Offices required extra time to collect the forms and submit to

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

the Board.

1.3 Many OMR forms were received in folded, torn or wet condition, rendering them unsuitable for scanning.

1.4 Approximately 8 lakh application forms were finally received. Scanning and generation of database took more than 2 months.

1.5 The generated database contained many errors due to wrong or incorrect filling or scanning of the fields. Cleaning the database to reflect the correct the information proved to be a major challenge. Particularly, many mistakes were detected in the fields relating to date of birth and category of reservation, leading to major problems.

1.6 Incorrect fields in the database led to institution of a large number of cases in the High Courts, which required resolution. A lot of time and effort was required to be invested.

1.7 Huge costs in logistical arrangements for receiving, administering, storing, scanning, and finally disposing the OMR forms were incurred.

1.8 By the very nature of OMR forms, they are not very friendly to capture information given in English or Hindi alphabets- hence there is always a limitation in capturing desired information like address as a database field. It is only used as an image. This poses severe limitations in utilizing even the captured data!

These reasons triggered the Board to adopt the online application form submission process.

2. Evaluation Process of Answer Sheets: The Board aspires to achieve error free evaluation of answer sheets of the candidates. For this purpose, candidates are involved in the evaluation process in two critical stages:

(i) Finalization of model answer key- the model key is published, and candidates asked to submit any objections;

(ii) Verification of Evaluation of individual answer sheets- the answer sheets of candidates are displayed on a website, and candidates are asked to verify.

In the previous recruitment process of 2009, following difficulties were noticed:

2.1 The candidates were asked to submit any objections to the model key only by post or email. A six day time period was given. Any objections received beyond that time were rejected summarily.

2.2 Receiving objections by post required specific arrangements for receiving, sorting and classifying objections question-wise. This required time.

2.3 Similar sorting and classification of objections question-wise was required for objections received on email.

2.4 For verification of evaluation of answer sheets, only the scanned copy of answer sheets was displayed on the website. The display did not have:

(i) Responses read by the OMR reader and assigned to different questions

(ii) Correctness or otherwise of each response.

(iii) Marks assigned.

2.5 The objections were only permitted by post, within a period of 6 days to be

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

received at the Board.

2.6 The objection filing period was extended twice, by the intervention of the High Court, up to a total of 50 days.

2.7 All objections received by post required arrangements for receipt, sorting and classification by candidates.

2.8 It took almost 2 months to resolve all objections.

3. **Scope of Services/ Activities Covered** (Relevance of choice of application for clients/ PSU, extent of e-enablement in terms of number of processes/services, extent to which step in each service/process have been ICT- enabled #)

A requisition for recruitment of 20,000 Constables was received in May, 2013. The number of vacancies was later revised to 41610 including those for UP Police, UP Provincial Armed Constabulary and UP Fire Service. Public advertisement was issued on 14 May, 2014 initiating the process.

As per the Recruitment Rules, the process for selection to the posts of constables involves a fully objective type qualifying preliminary written examination; a physical efficiency test involving a run for a designated distance within stipulated time limits for male and female candidates, and a fully objective type main written examination. A merit list is to be prepared on the basis of marks obtained in the physical efficiency test and the main written examination. These candidates will have to qualify the document verification and clear prescribed medical examination, which also lays down physical standards to be complied with. A final selection list shall be prepared thereafter.

The Board wanted to use ICT extensively in all phases of the recruitment process, starting with receipt of applications, scrutiny, generation of database, issue of admit cards, purification of answer keys, evaluation of answer sheets, display of evaluated answer sheets to the candidates, inviting objections from candidates, resolution of objections, assignment of marks and final result generation. Technology based processes have been laid out for physical efficiency and physical standards tests that involve no human intervention, thus making the whole process truly objective.

The status of ICT-enablement of various activities is as follows:

S.NO.	Activity	Status	Remarks
1	Receipt of Application Forms (a) OMR Application Kits (b) Online Portal	Not Applicable. ICT-enabled.	A hybrid model followed - along with traditional OMR method, online introduced.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

2	<p>Generation of database</p> <p>(a) Scanning OMR Forms (b) Merging online and offline data</p>	<p>Not Applicable. ICT-enabled.</p>	
3	<p>Issue of Admit Cards</p> <p>(a) By post (b) Online hosting</p>	<p>Not Applicable. ICT-enabled.</p>	<p>Generation of admit cards is ICT enabled. In addition to online hosting, admit cards also dispatched by post.</p>
4	<p>Management of Examination Centres</p>	<p>Not yet ICT-enabled</p>	<p>To be taken up in next phases.</p>
5	<p>Evaluation of OMR answer sheets</p> <p>(a) Purification of answer Keys (b) Evaluation of answer sheets (c) Evaluation Verification by candidates (d) Resolution of objections (e) Result processing</p>	<p>ICT-enabled. ICT-enabled. ICT-enabled. ICT-enabled. ICT-enabled.</p>	<p>Innovative design of ICT-enabled process leading to higher benchmarks of accuracy and transparency in large scale public recruitment examinations.</p>

4. Strategy Adopted

(i) The details of base line study done,

The base-line study was based on the experiences of the Board during a comparable large scale recruitment process conducted in 2009, relating to 35000 posts of Constables. The details are given at **S. No. 2 Situation Before the Initiative** above.

(ii) Problems identified

The problems identified are given in details at **S. No. 2 Situation Before the Initiative** above.

(iii) Roll out/implementation model

The Board decided to :

(i) Adopt a hybrid model for receipt of application forms. In addition to the traditional OMR forms, online submission was also to be permitted.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

- (ii) Use ICT extensively for effective and meaningful participation of candidates in the evaluation process to as to achieve total accuracy and transparency.

For these purposes, it was decided to engage a professionally competent and experienced agency for outsourcing specific tasks. An **Expression of Interest** was issued on 29/03/2013, which was publicized widely. A total of 55 agencies from 10 states of the country responded. A workshop of these agencies was held during 20/5/13 to 22/05/2013. Valuable experience gained during these exercises as well as previous recruitment processes was used to redraft a comprehensive '**Request For Proposal**' document. The RFP was issued on 30 May 2013 to 14 shortlisted agencies, and all of them responded. Final service provider agency was selected on an evaluation process based on **Quality and Cost Based System (QCBS)**. A detailed **Memorandum of Understanding (MoU)** was signed indicating various services required and service level agreements.

- (iv) Communication and dissemination strategy and approach used.):

1. Application relating to the **online submission of application forms** was hosted on the servers of UP State Data Centre, Lucknow.
2. Further services relating to **communication and participation of candidates in various stages of recruitment** like issue of admit cards, various notifications, evaluation of answer sheets, result declaration etc. were hosted on the service provider's servers.
3. '**Mobile Seva**'- the mobile governance initiative of DeitY, GOI was used for effective, **targeted communication with candidates**.

5. **Technology Platform used-**

(i) Description

.Net based technology has been used for web based applications. The database generated after scanning the OMR forms and answer sheets includes all details entered in the application forms and answer sheets completely with 100% accuracy. Manual data entry was done wherever required to ensure that all fields are entered correctly. Photograph, signatures and address fields are included as image/blob field of SQL Server, and are stored as database field. The database is implemented in standard industry based DB server architecture and is fully searchable. An interface for searching the database on all fields is also developed which displays information in a format required by the Board for MIS purposes and advanced analytics.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(ii) Interoperability

As the application is web based application, it is fully compatible with all underlying hardware which supports most of the web browsers. This also ensured that candidates have universal access to required information.

(iii) Security concerns

Standard web and information security protocols are followed.

(iv) Any issue with the technology used

No.

(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

A detailed **Memorandum of Understanding (MoU)** has been signed indicating various services required and service level agreements.

6. Enhancement of Productivity (Give details about impact on volume of transactions handled per employee, Productivity of machines/ resources#)

1. Receipt of Online Applications: While the time window for receipt of applications in offline as well as online modes was the same, i.e. from 18/07/2013 to 20/08/2013, the database of online applicants was prepared much faster and was ready for use. A total of 11,71,680 candidates applied online. The rate was almost 35,000 to 40,000 submissions per day. Photo and signatures were required to be verified manually for accepting the forms. 10 personnel were assigned the job, and they could verify about 3000 filled forms daily. The process was carried out as the application filing process was on. Hence, within 10 days after the closing date, the data of online applicants was ready for use. Further, the fee deposited by the candidates was remitted to the state treasury on a daily basis.

In contrast, the scanning of 10,53,013 OMR forms involved huge logistical arrangements for transport, storage, opening, scanning and generating the database. This task took more than 25 days after deploying a significantly higher number of personnel, machines and equipments, and working round the clock. 15 days were required to clean the database and making it free of errors. The fee deposited by the candidates was remitted by the Post Office only in October, 2013 - a delay of about 45 days after closing of application time.

2. Evaluation of Answer Sheets:

(a) Purification of Answer Key: During this step from 27/12/2013 to 03/01/2014, a total of 2591 objections were received. As these objections were directly entered into the database, they were easily classified

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

question-wise and the process became easier to administer. It was found that the objections were related to 4 questions only! This process of classification might have taken a long time, if it was administered through traditional post.

The expert committee was able to quickly take a decision on the 4 questions, leading to saving precious time.

(b) Verification of Evaluation by Candidates: All evaluated answer sheets of 17,89,985 candidates were posted online for verification by candidates from 20/6/2014 to 05/07/2014. During this time period, 14,38,009 candidates accessed their answer sheets. A total of 6798 objections were filed. As these objections were logged into the database directly through the web interface, they were classified easily as per administrative requirements for resolution.

They were resolved by the committees assigned for this purpose within a period of 19 days, thus saving large amounts of time and effort. If the process was conducted through post or even email, classification and sorting of similar objections and processing would have taken a large amount of time and effort.

7. **Efficiency Enhancement** (Give specific details about the following #)

(i) Volume of transactions processed

Total number of application processed were 22,24,693. These many candidates were issued admit cards for the preliminary written examination held on 15 December, 2013 and all logistical and administrative arrangements made to conduct the exam in a single session across 4236 examination centres across 75 districts of the State. Large scale mobilization, training and deployment of human resources was done to conduct the examination successfully. Effective anti-copying measures were taken. A total of 17,89,985 candidates appeared for examination, whose answer sheets were evaluated.

(ii) Coping with transaction volume growth

The system is designed to be scalable for larger volumes. The servers handled more than 1200 hits per minute successfully during critical periods.

(iii) Time taken to process transactions

35 days were taken to scan and process 10,52,982 OMR applications and generation of database. This database was merged with the database of 11,71,705 applicants who applied online.

Scanning of 17,89,985 answer sheets was completed in 45 days.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(iv) Accuracy of output

All evaluated answer sheets of 17,89,985 candidates were posted online for verification by candidates from 20/6/2014 to 05/07/2014. A user-friendly web interface was provided to the candidates, where one could view the actual images of Part 'A' and Part 'B' of his answer sheet, and match it with his copy of the answer sheet, which was handed over to him at the examination hall. The interface also showed his response to each question, model answer, total number of correct answers, total number of wrong answers given and total marks obtained. The candidate could file an objection if there was any mistake - he could even file an objection to any question's response assigned, which he thought was incorrect. During the indicated time period, 14,38,039 candidates accessed their answer sheets. A total of 6798 objections were filed; out of which around only 172 objections were adjudged valid requiring correction. The error rate is less than 0.01%; making this one of the most efficient and accurate evaluation processes. The process followed establishes new benchmarks for transparency in evaluation of large public recruitment processes.

(v) Number of delays in service delivery

There were no delays in service delivery.

8. **Service Delivery** – Business/ Client Centricity (Give details about improvement in interaction with clients and outcome for clients, relevance of access points, Length and Breadth of services provided online etc. #)

The service delivery model was completely candidate centric. A well designed portal has been prepared for the candidates which assists them through all stages of recruitment:

- Filing of applications
- Issue of important notifications
- Issue of admit cards
- A GIS facility to locate their examination centre
- View model answer key and file any objections online
- View evaluated answer sheets along with marks assigned, and file

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

objections

- Result declaration

Email notifications and **SMS** alerts have been integrated into the system.

The online portal is accessible from any private or public internet access point.

The data presented in **S. No. 1 (iii) Geographical Coverage** above illustrates the wide utilization of these services by candidates from rural areas. In this respect, the service delivery model is truly client-centric for recruitment of police constables, as large number of candidates comes from rural background.

9. Citizen Centricity (Give specific details on the following#)

(i) Impact on effort, time and cost incurred by user

The process of receipt of application forms through OMR Application Kits was administered through 169 Post Offices in all 75 districts of the State. Thus, on an average, only about 2 post offices in each district (except few bigger districts), usually located at the district headquarters, were assigned the task of issue and receipt of these forms. Thus, an individual residing in a rural, small district would need to travel about 50 km one way to reach a post office, and buy the form. He will come back, fill up the form, and again travel the same distance to deposit the form. In this entire process, he needs to invest at least two working days and reasonable amount of money apart from the application fees.

In the online method, people from rural areas have extensively used internet cafes available to them nearest to their places of residence. They have been able to save considerable amount of time and money through this methodology. Further notifications, admit cards and other services are also easily accessible through nearby internet cafes.

(ii) Feedback/grievance redressal mechanism

The whole process is designed to accept feedback from the candidates at each critical stage. The candidates are able to register their feedback through the following critical activities in the evaluation of answer sheets:

- Purification of Model Answer Keys
- Verification of Evaluation of Answer Sheets

Another important feature of the feedback mechanism is that the feedback registered by the candidate is directly logged into the database into relevant

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

fields, and the process design is such that sorting, grouping and classifying this feedback is extremely easy and efficient.

(iii) Audit Trails

All activities of all users- candidates, examination officials, and IT support teams are fully logged and audit trails are maintained.

(iv) Interactive platform for service delivery

The online form submission process is totally interactive. At each stage of filling, a comprehensive error check on inputs is done and the user is advised properly. Help files are provided at each stage. A user can take a print out of the form submitted immediately.

Similarly, during the stages of purification of answer keys and verification of evaluation, a user is provided an interactive, user friendly interface. He can take an acknowledgement of his submissions and a printout of all objections raised.

(v) Stakeholder consultation

The system has been designed in consultation with examination officials, candidates and IT professionals.

10. **User convenience** (Give specific details about the followings #)

(i) Service delivery channels (Web, email, SMS etc.)

1. **The online portal** is hosted on the servers of UP State Data Centre, Lucknow. It is accessible at <http://prpb.gov.in>. It provides services like online filing of forms, status tracking etc.

2. Further services relating to **communication and participation of candidates in various stages of recruitment** like issue of admit cards, various notifications, evaluation of answer sheets, result declaration etc. were hosted on the service provider's servers. Link to the website is provided on the above website. Identity of servers is not disclosed. Email is integrated into the portal.

3. **'Mobile Seva'**- the mobile governance initiative of DeitY, GOI was used for effective, **targeted communication with candidates.**

(ii) Completeness of information provided to the users

All the information required was provided through multiple communication channels to all the stakeholders.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(iii) Accessibility (Time Window)

The entire application system was web based. Therefore accessibility was round the clock. There were specific time windows allotted for different activities along the execution of the process.

(iv) Distance required to travel to Access Points

People from rural areas have extensively used internet cafes available to them nearest to their places of residence. An estimate puts number of cyber cafes in UP to be more than 25000. An estimate of average distance of a candidate to an internet café in rural areas is not available.

(v) Facility for online/offline download and online submission of forms

Online submission of application forms was one of the main features of the portal. Admit cards can be downloaded from the system. Filing of objections was directly through the web interface provided for a particular task, like purification of answer key or verification of evaluation.

(vi) Status tracking

The status of an applicant can be tracked through the portal at identified milestones.

11. Innovation (Give details on how the usage of technology is exemplary, any use of new and emerging technology, impact on number of steps required, identification and removal of bottlenecks/ Irrelevant steps etc. #)

The effort on innovation may be described in two areas: (1) Receipt of Applications Online, and (2) Evaluation Process of Answer Sheets.

1. Receipt of Applications Online:

A portal was developed in coordination with National Informatics Centre, Lucknow (www.prpb.gov.in) for the receipt of application forms online. We believed that lakhs of candidates would apply through this route, and robust infrastructure would be required to host an application for reliable operation. The Department of Information Technology, Govt. of Uttar Pradesh permitted the application to be hosted at the UP State Data Centre.

The online application process had the following steps:

1. **Registration:** Candidate registers with his basic details for the recruitment. He prints an e-challan for the requisite fee to be paid.
2. **Payment of Fee:** Candidate pays the fee at any branch of State Bank of India

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

or Punjab National bank across the country, and is given a transaction number by the bank.

3. **Filling Detailed Form:** The candidate again logs into the portal and fills up the detailed form.

The State Govt. had permitted 14,69,236 candidates of recruitment process of constables initiated in 2011, which was cancelled, to participate in this recruitment process giving them relaxation in age and fees to be paid. Specific modules were added to the online filing application to cater to this requirement also.

During the application window from 20 June, 2013 to 20 August, 2013, a total of 10,53,013 candidates applied through the traditional OMR Forms and 11,71,680 candidates took advantage of the online process. Thus, out of a total of 22.24 lakh candidates, **more than half (52.6%) of the candidates availed of the online filing facility for the applications.**

2. Evaluation Process of answer Sheets:

The evaluation process of OMR answer sheets comprised four distinct steps:

1. Purification of Answer Keys
2. Evaluation of Answer Sheets
3. Verification of evaluation by candidates
4. Resolution of objections filed by candidates.

The details of these steps are given below.

1. Purification of answer keys:

- All proposed answers to the questions in the question paper were displayed online.
- The process was designed in such a manner that the unique serial number of the question paper itself contained the series code, and no separate series identifier was used.
- The number of series used in the question paper was a large one, in double digits.
- The number of series was not disclosed. These were important anti-copying measures.
- On the basis of one's question booklet number and question number, a candidate could see image of the actual question and model answer.
- The candidate could record his objection online through a very friendly user-interface.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES



The screenshot displays the 'Candidate Objection' page of the Uttar Pradesh Police Recruitment and Promotion Board, Lucknow. The page header includes the board's name in Hindi and English, along with a logo and a portrait of a police officer. The user information shows 'User: RANJAN KUMAR' and 'Roll Number: 3308670'. The 'Booklet Number' is '5000001' and the 'Question Number' is '1'. The question is in Hindi: 'निम्नलिखित में से किस नदी का उद्गम भारत के बाहर है?' (Which of the following rivers originates outside India?). The options are (A) ब्रह्मपुत्र (Brahmaputra), (B) गंगा (Ganga), (C) यमुना (Yamuna), and (D) नर्मदा (Narmada). The 'Model Answer' is (A). The 'Objection' section has 'Question Wrong' and 'Answer Wrong' options, with 'Answer Wrong' selected. The 'Suggested Answer' is (A). There is a 'Remarks' field and a 'Save & Raise another Objection' button. A disclaimer at the bottom states: 'Disclaimer: Please enter the correct Q, Booklet No. After three wrong attempts, you will not be able to raise any objections.'

- During this step from 27/12/2013 to 03/01/2014, a total of 2591 objections were received.
- As these objections were directly entered into the database, they were easily classified question-wise and the process became easier to administer.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES



उ०प्र० पुलिस भर्ती एवं प्रोन्नति बोर्ड, लखनऊ

Uttar Pradesh Police Recruitment and Promotion Board, Lucknow

Admin : Candidate Objection List

Question No.	Question	Question is Wrong	Answer is Wrong
1	निम्नलिखित में से कौन नदी का उद्गार भावर के बाहर है ? (A) इन्द्रायु (B) गंगा (C) यमुना (D) नर्मदा	13	4
2	सिद्धि का अर्थ है ? (A) आत्मिकी आत्मिकी की अर्थ सिद्धि है। (B) आत्मिकी के अर्थ सिद्धि का अर्थ सिद्धि है। (C) सिद्धि का अर्थ सिद्धि का अर्थ सिद्धि है। (D) सिद्धि का अर्थ सिद्धि है।	6	6
3	उत्खन (खन) की शुरुआत का उद्देश्य क्या है ? (A) खनन की शुरुआत में खनन (B) खनन में खनन की शुरुआत (C) खनन में खनन (D) खनन में खनन की शुरुआत	2	9
4	खनन का उद्देश्य क्या है ? (A) खनन, खनन और खनन (B) खनन, खनन और खनन (C) खनन, खनन और खनन (D) खनन, खनन और खनन	4	7
5	खनन का उद्देश्य क्या है ? (A) खनन (B) खनन (C) खनन (D) खनन	3	16
6	खनन का उद्देश्य क्या है ? (A) खनन (B) खनन (C) खनन (D) खनन	4	11
7	खनन का उद्देश्य क्या है ? (A) खनन (B) खनन (C) खनन (D) खनन	4	7
8	खनन का उद्देश्य क्या है ? (A) खनन (B) खनन (C) खनन (D) खनन	9	29

Export Objection Summary in Excel
Export Objection Detail in Excel
Print Objection Summary
Print Objection Detail

Note : Browser support 1.E 8 & above.

- It was found that the objections were related to 4 questions only! This process of classification might have taken a long time, if it was administered through traditional post or even email.
- The expert committee was able to quickly take a decision on the 4 questions, leading to saving precious time.

2. Evaluation of answer sheets:

- The OMR answer sheets were cut into two pieces at the examination hall, and sealed into two different packets. While Part 'A' contained personal information of the candidate, Part 'B' carried only the answers to the questions. Both the parts were related logically by a set of bar codes.

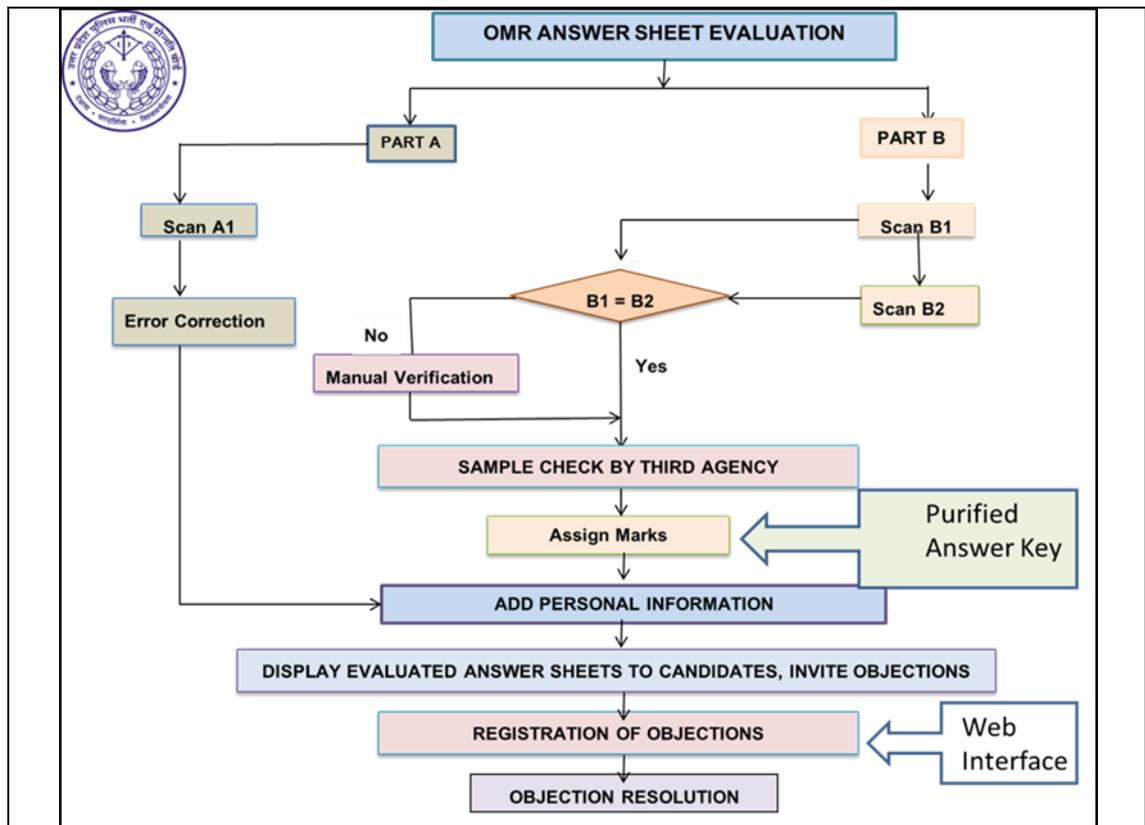
AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

The Two Parts of the Answer Sheet are Separated at the Examination Hall.

The Parts are connected by Barcodes.

- During evaluation, Parts 'B' of all candidates were scanned two times at different resolutions, with colour image taken each time. Responses to each question read from each scan were matched. In case of any mismatch, both images were used to record correct answer manually.
- Further, a sample of more than 20,000 answer sheets was subjected to the same process by a different agency to cross check the result.
- Having been sure of the assignment of candidates' given responses, purified answer key was applied to calculate marks obtained.
- After this process, personal details extracted from Parts 'A' of the answer sheets were matched with the bar codes of the candidates to assign marks to them.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES



3. Verification of evaluation by candidates:

- All evaluated answer sheets of 17,89,985 candidates were posted online for verification by candidates from 20/6/2014 to 05/07/2014.
- A user-friendly web interface was provided to the candidates, where one could view the actual images of Part 'A' and Part 'B' of his answer sheet, and match it with his copy of the answer sheet, which was handed over to him at the examination hall.
- The interface also showed his response to each question, model answer, total number of correct answers given and total marks obtained.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Registration of Objections: Web Interface

Part 'A'

Candidate Result View
Logout

Candidate Name: DEEPAK KUMAR
Father Name: MAHIPAL
Date of Birth: 22-05-1995

Question Booklet No: 7057953
Roll Number: 2193557
Gender: Male

Center Address: जयंत अग्रवाल कृषक आयोग केन्द्र, एन.डी. इन्फोटेक नगर
राजस्थान मंत्रालय केन्द्र (राजकोट), पिन - 247776
SHAMLI

Total Marks(M)	Total No of Questions(T)	No. of Cancelled Questions(C)	Number of Questions Answered(B)	Number of Correct Answers(A)	Number of Wrong Answers(W)	Marks Obtained (1.9108*A)
300	160	3	109	48	112	91.7184

Note: The marks of 3 cancelled questions have been equally distributed into the remaining 157 questions. Hence, each correct answer carries (300/157)=1.9108 marks.

Part A | Part B

Answer Sheet Part A



Answer Sheet Part A

कृपया मेरी आपत्ति दर्ज करें

Part-A प्रदर्शित नहीं हो रहा है।

Part-A मेरा नहीं है।

प्रश्न पुस्तिका का गलत क्रम में पढ़ा गया है।

Registration of Objections

Part 'B'

Candidate Result View
Logout

Candidate Name: .
Father Name: |
Date of Birth: |

Question Booklet No: 7032380
Roll Number:
Gender: Male

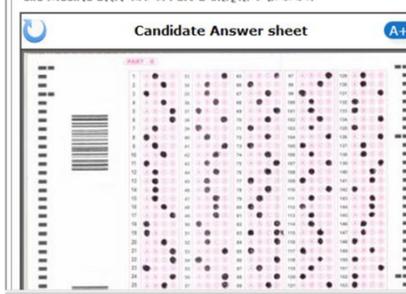
Center Address राजकीय महाविद्यालय बहजोई रोड इयातनगर
राजकीय महाविद्यालय बहजोई रोड इयातनगर
सम्भल SAMBHAL

Total Marks(M)	Total No of Questions(T)	No. of Cancelled Questions(C)	Number of Questions Answered(B)	Number of Correct Answers(A)	Number of Wrong Answers(W)	Marks Obtained(1.9108*A)
300	160	3	157	54	103	103.1832

Note: The marks of 3 cancelled questions have been equally distributed into the remaining 157 questions. Hence, each correct answer carries (300/157)=1.9108 marks.

Part A | Part B

Candidate Answer sheet



Objection

ओपनआर0 उत्तर पत्रक की Part-B प्रतिकृति के सम्बन्ध में

मेरी उत्तर पुस्तिका का मूल्यांकन गलत सीरीज के आधार पर कि -

--Select--

Part-B प्रदर्शित नहीं हो रहा है।

Part-B मेरा नहीं है।

मेरी उत्तर पुस्तिका का मूल्यांकन गलत सीरीज के आधार पर किया गया है।

कृपया मेरी आपत्ति दर्ज करें।

No.	Response	Response	Objection
1	B	B	Select
2	C	B	Select
3	A	A	Select
4	C	B	Select
5	D	B	Select
6	D	B	Select
7	B	C	Select

- The candidate could file an objection if there was any mistake - he could

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

even file an objection to any question's response assigned, which he thought was incorrect.

Verification of Evaluation of Each Question

Candidate Result View Logout

Candidate Name: Question Booklet No: 7032380 Center Address: राजकीय महविद्यालय बड़ौदा रोड हमादनगर
Father Name: Roll Number: Gender: Male राजकीय महविद्यालय बड़ौदा रोड हमादनगर
Date of Birth: सम्भल SAMBHAL

Total Marks(M)	Total No of Questions(T)	No. of Cancelled Questions(C)	Number of Questions Answered(B)	Number of Correct Answers(A)	Number of Wrong Answers(W)	Marks Obtained(1.9100*A)
300	160	3	157	54	103	103.1832

Note: The marks of 3 cancelled questions have been equally distributed into the remaining 157 questions. Hence, each correct answer carries (300/157)=1.9108 marks.

Objection save successfully

Part A Part B

ओपमोअरु अउर वरक की Part-B प्रतिक्रिया के सम्बन्ध में मेरी उत्तर पुस्तिका का मूल्यांकन गलत सीरीज के आधार पर कि Save

Candidate Answer sheet Answer sheet evaluation Save

Question No.	Candidate Response	Correct Response	Objection
1	B	B	मेरा उत्तर गलत पड़ा गया है।
2	C	B	Select
3	A	A	Select
4	C	B	Select
5	D	B	Select
6	D	B	Select
7	B	C	Select

- During the indicated time period, 14,38,009 candidates accessed their answer sheets.
- A total of 6798 objections were filed.
- **During this time period, more than 34,00,000 SMSes were sent to the candidates informing and reminding them to view and verify the evaluation of their answer sheets through 'Mobile Seva' – the national mobile governance initiative of DeitY, GOI.**

4. Resolution of objections:

- As these objections were logged into the database directly through the web interface, they were classified easily as per administrative requirements for resolution.
- They were resolved by the committees assigned for this purpose within a period of 19 days, thus saving large amounts of time and effort. If the process was conducted through post or even email, classification and sorting of similar objections and processing would have taken a large amount of time and effort.

Declaration of results:

- Final results were declared on 28/7/2014, just 23 days after the closing window for filing objections by over 17.89 lakh candidates.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

12. Defined and Achieved outcomes (Give details about extent of improvement in terms of organizational objectives, output targeted in the beginning of the project and output achieved, extent to which the project is able to reach/ fulfill the requirements of planned beneficiaries etc. #)

The objectives for use of this project were as follows:

1. Generate a clean database of large number of expected applicants in an efficient manner.
2. Totally accurate and error free evaluation of answer sheets of large number of candidates with total transparency with meaningful participation of candidates.

The outcomes achieved have been the following:

1. The option of the online application platform was utilized by more than 52.6% of the total applicants. A clean database was generated within 10 days of closure of application time limits. Also, there was no shortage of application forms, and consequently, there were no law and order problems over non-availability of application forms, as was witnessed in the last process. Further, the whole process was extremely efficient in terms of time, human effort and cost of administration.
2. The evaluation of about 17.89 lakh OMR answer sheets has been completed in a totally accurate and transparent manner. The steps of purification of answer keys and verification of evaluation were completed with deep involvement of candidates. During the evaluation verification stage, 14,38,009 candidates (more than 80.3% of appeared candidates) viewed their answer sheets and verified the evaluation. It is noteworthy that number of online applicants was 11,71,680 candidates had applied online- it is thus clear that many offline applicants also used these features of the processes.

13. Sustainability (Give details about sustainability w.r.t. technology (technology used, user privacy, security of information shared- Digital Signature/ Encryption etc. #), Organization (hiring trained staff, training etc#), financial (Scope for revenue generation etc. #)

The technology used is standard .Net based Microsoft Technology for web based application development. Card based encryption method was utilized for data storage. The entire process has been successfully implemented and demonstrated to be scalable.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

14. Adaptability Analysis

(i) Measures to ensure adaptability and scalability

The technology platform used for the recruitment process is web based application platform with adaptability across different browsers and underlying hardware. The Software application can easily be scaled to higher volumes and even for multiple exams simultaneously without any loss of functionalities. The existing application has been load tested successfully for multiple times of actual volume of applications processed for this examination.

The operation process required to handle all the offline applications and answer sheets and their processing are standard practices and can be extended to higher volumes with just increase in scanning hardware. The process has been tested and error rate is found to be less than 0.001%.

(ii) Measures to ensure replicability

The technology platform and operations processes followed are standardized. They can be easily replicated across multiple such processes with even higher volumes. Following measures were taken to ensure replicability:

1. Standardized Technology Platform:

Use of standardized platform and industry accepted development practices allow the process to be replicated any number of times. All the underlying software applications are web based and therefore accessible anywhere with proper authentication.

2. Defined Operational Processes

The operational processes involved were tightly coupled with software application at its core, therefore setting strict rules and scope for each and every operational step involved. These measures not only made the processes reliable but also replicable to any number of such projects.

(iii) Restrictions, if any, in replication and or scalability

Set processes driven by underlying software application means that there are no restrictions on replicability.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(iv) Risk Analysis

Any recruitment process has risks associated with confidentiality, security, transparency and timeline to declare results etc. The recruitment process for Constables involved evaluation of almost 18 lakh candidates OMR answer sheets . In order to minimize the risks associated with the process multiple measures and redundancy were introduced in the system.

1. Efficient Data Gathering Process –

Candidate application forms were received both online and offline. After generating the data from scanning, complete data was quality checked and sanitized to weed out any invalid entries in the inputs. All such records are maintained. This process ensured that all the data has been pre-checked properly before processing for next step.

2. Interactive System with strong candidate centricity -

At every step of the process, the data has been hosted online for all the candidates to check and verify. Candidate can record their objections on answer keys, scanned answer sheets images in user friendly interface. With the help of such systems, total numbers of objections were reduced to mere 0.001% of total volume.

3. Audit Trail and Strong Handover Mechanisms –

The software interface also has administration view where all the MIS reports for entire process are available for the board to review. Every process has handover mechanism in place in order to ensure that data entering the process and the output are double checked to remove any chances of risks and errors. This also ensured strong audit trail for entire set of processes.

4. Redundancy –

All the underlying hardware such as servers, network connection equipment has built in redundancies to prevent any discontinuity in operations. All the data are backed up regularly and secured to ensure loss or theft of data.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

15. **Result Achieved/ Value Delivered** to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc.):

(i) To organization

1. The organization directly benefitted from **huge savings in costs in terms of time and money** in conducting ICT-enabled processes.

2. An innovative feature of the process was the design of processes for purification of answer keys and verification of evaluation by candidates. In both these stages, responses from candidates were received online, in a user-friendly interface, and were directly logged into the database. This process helped the examination controllers to classify the objections raised issue-wise without handling any emails or physical papers, and directly resolve each of them, thus **enhancing efficiency manifold**. This resulted in saving of precious time for the organization as well.

3. The UP Police Recruitment & Promotion Board prides itself in having built a reputation of conducting recruitments and promotions in UP Police in an absolutely fair and transparent manner. We strive to adopt newer information and communication technologies and competent service partners to achieve our goals of higher professional competence, total reliability and total transparency in all our processes. **The current process strengthens our reputation.**

4. An assessment of the overall impact may be made by the fact that **many govt. departments have expressed their desire to get their recruitment processes conducted by this Board!** As the rules provide that the Board caters only to the Police, they truly wish to achieve the standards laid down by the Board.

(ii) To citizen

1. During the application stage, about 10.53 lakh candidates applied through the traditional OMR Forms and about 11.71 lakh candidates took advantage of the online process. Thus, out of a total of 22.24 lakh candidates, more than half (52.6%) of the candidates availed of the online filing facility for the applications. It is significant to note that out of 10,44,695 residents of UP who

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

applied online, 21% belonged to Category 'A', 20% to Category 'B' and 59% to Category 'C' districts. These figures indicate that the process has particularly benefited candidates from smaller and rural districts. **These figures also indicate that in future recruitment processes for Constables, only online mode of application filing may be used without any fear of apparent denial of opportunity to the rural population.**

2. The online application filing process also **benefitted 1,27,010 non-resident candidates belonging to all the other 28 States and 7 Union Territories of the country** who would have found it extremely difficult to apply through the traditional process administered through only Post Offices within the State of UP.

3. All admit cards were also made available online to be downloaded. **More than 21.63 lakh candidates availed the facility of downloading the admit cards** from the online portal.

4. The transparent evaluation process directly benefitted about 17.89 lakh candidates, who appeared for the preliminary written examination. **All evaluated answer sheets of appeared 17,89,985 candidates were posted online for verification. During this stage, 14,38,009 candidates accessed their answer sheets.**

(iii) Other stakeholders

On the whole, benefits of a transparent and fair evaluation and recruitment process would accrue not just to **the parent organization- the UP Police**, but also to **the wider society in terms of faith in the functioning of public institutions and improved service delivery by those public servants selected on the strength of their own merit.**

16. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

The objective of the project audience i.e. G2C is fully achieved. The project has been able to provide targeted communication and relevant information to its target audience.

This fact is also proved by the fact that more than 80% (14,38,009) of those candidates who appeared for the exam (total 17,89,985) viewed their evaluated answer sheets online and verified the accuracy of the process.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

17. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, Change in legal system, rules and regulations:

1. A Comparative Study of OMR Applications and Online Methods is presented below:					
SN	Parameter	OMR Forms	Remarks	Online Filing	Remarks
1	Availability : Places	Designated Post Offices	169 POs in 75 districts	Internet	>25000 internet cafés in UP
2	Availability: Duration	Working Hours	10 AM to 5 PM	24 Hours	Deadline up to 11:59 Hrs.
3	Acknowledgement	Only from PO	No ack. from Board	Immediate	SMS and Email sent
4	Form Current Status	Not known until Admit Cards received	Uncertainty for candidate	Displayed on website	Candidate friendly
5	Communication to candidates	Through Advertisements	Impersonal	Website, SMS and Email	Personalised
6	Errors in Filling Forms	Rectification difficult	Many forms Rejected, Database errors	Verification at each stage	No rejections due to errors
		1. Date of Birth 2. Education	Error in blackening bullets may lead to rejection		No such errors.
		3. Photo pasted over barcode	Impossible to scan.	Error avoided altogether	No such error.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

7	Administration of Process	1. Printing of lakhs of Forms 2. Transportation to/ from POs 3. Form shortage 4. Scanning 5. Error Correction 6. Database generation	Huge logistics involved; Clean database extremely difficult	Whole process done automatically No shortage of forms	Easy to administer
8	Cost	Very expensive	Money and Time	Very Economical	ZERO cost
9	Impact on Environment	Tons of paper used	Unfriendly	Minimal Paper used	Friendly

2. A Comparative Study of Previous and Current Evaluation Process is presented below:

SN	Parameter	Previous Process	Remarks	Current Process	Remarks
1. Purification of Answer Keys					
1	Display of Information	Only question number given along with model answer	Error due to wrong referencing of questions noticed	Image of question, model answer	Providing image of question removes any doubts about the question being referred
2	Receipt of objections	Only through post	Limited reach. Special arrangement needed for receipt.	Web-interface provided	Objections directly logged into database automatically.
3	Kind of objections	Unstructured	Candidates write irrelevant issues at times	Fully structured	Objection received are to the point and fully relevant

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

4	Time Period for Objections	7 days	Time given is insufficient for meaningful participation by candidates, as it is difficult for a letter to reach destination within 6 days by post.	8 days	Sufficient time allotted for meaningful participation through online means
5	Classification and sorting of objections	To be done manually	Time-consuming process	Database reports available readily	Extremely efficient process
2. Evaluation Verification of Answer Sheets					
1	Display of Information	Black & white image of OMR answer sheet along with total marks obtained.	Incomplete information for a truly accurate calculation	Colour image of OMR answer sheet; Response read for each question; Complete calculations for marks obtained; Total mark obtained	Total transparency and accuracy ensured

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

2	Receipt of objections	Only through post	Limited reach. Special arrangement needed for receipt.	Web-interface provided	Objections directly logged into database automatically.
3	Kind of objections	Unstructured	Candidates write irrelevant issues at times	Fully structured; even response read of any single question could be challenged	Objection received are to the point and fully relevant; Leads to total accuracy
4	Time Period for Objections	8 days; extended by High Court's orders twice up to 50 days	Time given is insufficient for meaningful participation by candidates, as it is difficult for a letter to reach destination within 6 days by post.	15 days	Sufficient time allotted for meaningful participation through online means
5	Classification and sorting of objections	To be done manually	Time-consuming process	Database reports available readily	Extremely efficient process

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

18. Other distinctive features/ accomplishments of the project:

1. This recruitment process for the posts of 41,610 constable in one go is the largest ever recruitment process conducted by us. **The organization of a written examination for about 22.24 lakh aspirants in one session probably qualifies for the largest ever public recruitment examination conducted in the country.**
2. **We believe that we have set new benchmarks for accuracy and transparency in the evaluation process of public competitive examinations.** The processes may be followed by other organizations conducting processes for public recruitments or selection to professional courses for enhancing accuracy and transparency.
3. The development of the Board's portal for managing the recruitment processes by the National Informatics Centre and hosting the application in the UP State Data Centre provides an outstanding example of the advantages of the public information infrastructure created by DeitY over time for citizen centric public service delivery.

This is just an indicative list of indicators. Applicant can add on more information based on suitability of the project nominated.
