



# BUREAU OF INDIAN STANDARDS

## ON-LINE EXAMINATION - RECRUITMENT OF SCIENTISTS

### INFORMATION HANDOUT

This handout contains details pertaining to various aspects of the online exam you are going to undertake and important instructions about related matters. You are advised to study the handout carefully as it will help you in preparing for the examination.

The on-line examination will comprise the following objective type multiple choice tests as stated below :

Sr. No.	Test	No. of Question	Marks	Time
1.	Test of Quantitative Aptitude	50	50	Composite time of Two Hours
2.	Test of Reasoning	50	50	
3.	Test of English Language	50	50	
4.	Test of Technical Knowledge	50	50	
	<b>Total</b>	<b>200</b>	<b>200</b>	

The time for the test is 120 minutes; however you may have to be at the venue for approximately 180 minutes including the time required for logging in, collection of the call letters, going through the instructions etc. The tests will be provided in English and Hindi. You can attempt any question from 1 to 200 at any point of time within these 120 minutes. All the questions will have multiple choices. Out of the five answers to a question only one will be the correct answer. **You have to select the most appropriate answer and 'mouse click' that alternative which you feel is appropriate/ correct. The alternative/ option that you have clicked on will be highlighted and will be treated as your answer to that question. There will be penalty for wrong answers marked by you. For every wrong answer marked by you, 1/2 of the marks assigned to that question will be deducted as penalty.**

**Please note that the types of questions in this handout are only illustrative and not exhaustive. In the actual examination you will find questions of a higher difficulty level on some or all of these types and also questions on the types not mentioned here.**

Some sample questions are given below.

### SAMPLE QUESTIONS

#### TEST OF QUANTITATIVE APTITUDE

This test is designed to measure how fast and accurate you are in dealing with numbers, viz. computation, quantitative reasoning, interpretation of tables and graphs.

**Directions :** In each of the following questions one number is missing. The place where the number is missing is shown by a question mark (?). You have to find out which one of the answers shown against 1, 2, 3 and 4 can replace the question mark. If none of these four can replace the question mark, you will indicate (5) i.e. 'None of these' as your answer.

**Q.1.**  $42 + 73 + 137 = ?$   
(1) 352                      (2) 252                      (3) 242                      (4) 142                      (5) None of these

**Q.2.**  $20 \times \frac{1}{2} = ?$   
(1) 4                          (2) 5                          (3) 12                          (4) 20                          (5) None of these

**Q.3.** If the profit made by selling a pen for Rs.10 is as much as its cost, what is the cost price of the pen ?  
(1) Rs.3/-                      (2) Rs.5/-                      (3) Rs.10/-                      (4) Rs.20/-                      (5) None of these

Also, there may be some questions based on graphs and tables.

**Directions :** Given below is a table showing percentages out of a total of 700 employees ranking six attributes that help promotion. Rank I is the highest. Study the table carefully and answer questions that follow :

Attribute	% of Employees Giving Different Ranks					
	I	II	III	IV	V	VI
Seniority	32	17	22	19	5	5
Perseverance	14	19	17	9	27	14
Efficiency	15	19	21	14	14	17
Intelligence	10	14	10	14	17	35
Honesty	24	17	7	9	27	16
Sociability	5	14	23	35	10	13

- Q.4.** Which attribute for promotion has received the highest rank ?  
 (1) Perseverance (2) Seniority (3) Honesty (4) Sociability (5) Efficiency
- Q.5.** How many employees gave rank III to intelligence ?  
 (1) 119 (2) 98 (3) 77 (4) 70 (5) 10
- Q.6.** Which attribute is considered the least important for promotion ?  
 (1) Honesty (2) Intelligence (3) Perseverance (4) Efficiency (5) Sociability

### TEST OF REASONING

This is a test to see how well you can think. It contains questions of various kinds. Here are some sample questions.

- Q.7.** If the letters in the word TOPS can be rearranged to form a meaningful word beginning with O, the last letter of that word is your answer. If more than one such word can be formed, M is the answer and if no such word can be formed, X is the answer.  
 (1) T (2) P (3) M (4) S (5) X
- Q.8.** Some leaders are dishonest. Satyapriya is a leader. Which of the following inferences definitely follows from these two statements ?  
 (1) Satyapriya is honest (2) Satyapriya is dishonest  
 (3) Some leaders are honest (4) Leaders are generally dishonest  
 (5) Satyapriya is sometimes dishonest
- Q.9.** If the letters of the following alphabet interchange positions, so that A takes the place of Z and Z takes the place of A; B takes the place of Y and Y takes the place of B and so on, what will be the 13th letter from the right ?  
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
 (1) M (2) N (3) O (4) L (5) None of these
- Q.10.** If the first and the second letters in the word 'DEPRESSION' were interchanged, also the third and the fourth letters, the fifth and sixth letters and so on, which of the following would be the seventh letter from the right ?  
 (1) R (2) O (3) S (4) I (5) None of these
- Q.11.** In a row of girls, if Seeta who is 10th from the left and Lina who is 9th from the right interchange their seats, Seeta becomes 15th from the left. How many girls are there in the row ?  
 (1) 16 (2) 18 (3) 19 (4) 22 (5) None of these
- Q.12-16.** Read the information given below and answer the questions.  
 Six plays A, B, C, D, E and F of a famous playwright are to be staged one on each day from Monday to Saturday. The schedule of the plays is to be in accordance with the following.  
 (1) A must be on the previous day of the on which E is staged.  
 (2) C must not be staged on Tuesday.  
 (3) B must be on a day which follows the day on which F is staged.  
 (4) D must be staged on Friday only and should not be immediately preceded by B.  
 (5) E must not be staged on the last day of the schedule.
- Q.12.** Which of the following is the schedule of plays, with the order of their staging from Monday ?  
 (1) E A B F D C (2) A F B E D C (3) A F B C D E (4) F A B E D C (5) None of these

- Q.13.** Play C cannot definitely be staged on which of the following days in addition to Tuesday ?  
 (1) Monday (2) Wednesday (3) Thursday (4) Friday (5) Saturday
- Q.14.** Play D is between which of the following pairs of plays ?  
 (1) C and E (2) E and F (3) A and E (4) B and E (5) C and F
- Q.15.** Which of the following plays is on Monday ?  
 (1) E (2) A (3) F (4) B (5) C
- Q.16.** Which of the following plays immediately follows B ?  
 (1) F (2) E (3) D (4) C (5) A

### TEST OF ENGLISH LANGUAGE

This is a test to see how well you know English. Your English language ability would be tested through questions on grammar & vocabulary, synonyms, antonyms, sentence completion, comprehension of a passage etc.

**Q.17-18.** Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is '5'. (Ignore the errors of punctuation, if any).

- Q.17.** Most of the third world / country are experiencing / the ethnic or communal problem/  
 (1) (2) (3)  
 in varying degrees. / No error.  
 (4) (5)
- Q.18.** The regaining of freedom / as we well know has given rise for / many dormant issues /  
 (1) (2) (3)  
 and conflicts in our society. No error.  
 (4) (5)

**Q.19-20.** Pick out from the words given below each sentence the word which would complete the sentence correctly and meaningfully.

- Q.19.** Continuous unemployment has induced in the people a kind of \_\_\_\_\_ which is most depressing.  
 (1) laziness (2) encouragement (3) satisfaction (4) anger (5) awakening
- Q.20.** He wants me to look \_\_\_\_\_ his garden during his absence.  
 (1) at (2) over (3) after (4) into (5) from

**Q.21-26.** In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

The true (21) of rights is duty. If we all (22) our duties, rights will not be (23) to seek. If leaving duties unperformed we run (24) rights, they will (25) us like an elusive person. The more we pursue them, the farther (26) they fly.

- Q.21.** (1) end (2) source (3) joy (4) purpose (5) power
- Q.22.** (1) deny (2) devote (3) discharge (4) imagine (5) fulfill
- Q.23.** (1) far (2) close (3) easy (4) against (5) common
- Q.24.** (1) as (2) after (3) at (4) from (5) for
- Q.25.** (1) hold (2) grab (3) fight (4) escape (5) chase
- Q.26.** (1) off (2) can (3) did (4) could (5) towards

### TEST OF TECHNICAL KNOWLEDGE

Questions in the Technical Knowledge Test will be based on the subject of specialisation.

#### (A) Details of the On-line Examination Pattern

- (1) The examination would be conducted on-line i.e. on a computer.
- (2) All tests except of English will be in English and Hindi.
- (3) All the questions will have multiple choices. Out of the five answers to a question only one will be the correct answer. **The candidate has to select the most appropriate answer and 'mouse click' that alternative which he/ she feels is appropriate/ correct. The alternative/ option that is clicked on will be highlighted and will be treated as the answer to that question. Answer to any question will be considered for final evaluation, only when candidates have submitted the answers by clicking on "Save & Next" or "Mark for Review & Next".**
- (4) The clock has been set at the server and the countdown timer at the top right corner of your screen will display the time remaining for you to complete the exam. When the clock runs out the exam ends by default - you are not required to end or submit your exam.

- (5) The question palette at the right of screen shows one of the following statuses of each of the questions numbered:



You have not visited the question yet.



You have not answered the question



You have answered the question



You have NOT answered the question but have marked the question for review



You have answered the question but marked it for review.

The Marked for Review status simply acts as a reminder that you have set to look at the question again. *If an answer is selected for a question that is Marked for Review, the answer will be considered in the final evaluation.*

- (6) To select a question to answer, you can do one of the following :
- Click on the question number on the question palette at the right of your screen to go to that numbered question directly. Note that using this option **does NOT save your answer** to the current question.
  - Click on **'Save & Next'** to save answer to current question and to go to the next question in sequence.
  - Click on **'Mark for Review and Next'** to save answer to current question, mark it for review, and to go to the next question in sequence.
- (7) You can view the entire paper by clicking on the **Question Paper** button.
- (8) To select your answer, click on one of the option buttons
- (9) To change your answer, click the another desired option button
- (10) To save your answer, you MUST click on **Save & Next**
- (11) To deselect a chosen answer, click on the chosen option again or click on the **Clear Response** button.
- (12) To mark a question for review click on **Mark for Review & Next**. *If an answer is selected for a question that is Marked for Review, the answer will be considered in the final evaluation.*
- (13) To change an answer to a question, first select the question and then click on the new answer option followed by a click on the **Save & Next** button.
- (14) Questions that are saved or marked for review after answering will ONLY be considered for evaluation.**
- (15) Sections will be displayed on the top bar of the screen. Questions in a section can be viewed by clicking on the section name. The section you will view will be highlighted.
- (16) After clicking the **Save & Next** button on the last question for a section, you will automatically be taken to the first question of the next section.
- (17) You can move the mouse cursor over the section names to view the status of the questions for that section.
- (18) You can shuffle between sections and questions anytime during the examination as per your convenience.
- (19) The candidates are requested to follow the instructions of the "Test Administrator" carefully. If any candidate does not follow the instructions / rules, it would be treated as a case of misconduct/ adoption of unfair means and such a candidate would be liable for debarment from appearing for examinations for a period as decided by Bureau of Indian Standards.
- (20) The candidates may ask the Test Administrator about their doubts or questions only before the commencement of the test. No query shall be entertained after the commencement of the examination.
- (21) After the expiry of 120 minutes, the candidates will not be able to attempt any question or check their answers. The answers of the candidate would be saved automatically by the computer system even if he/ she has not clicked the "Submit" button.

(22) Please note :

- (a) Candidates will not be allowed to “finally submit” unless they have exhausted the actual test time.
- (b) Under no circumstances should a candidate click on any of the ‘keyboard keys’ once the exam starts as this will lock the exam.

**B] General Instructions:**

- (1) Please note your roll number, password, date, time and venue address of the examination given in the call letter.
- (2) You may visit the venue one day before the Online Examination to confirm the location so that you are able to report **on time** (as printed on the call letter) on the day of the examination. Late comers will not be allowed.
- (3) The call letter should be brought with you to the examination venue along with your recent passport size photograph duly pasted on it.
- (4) You must scrupulously follow the instructions of the Test Administrator and Bureau of Indian Standards’ Representative at the examination venue. If you violate the instructions you will be disqualified and will be asked to leave the examination venue.
- (5) No use of calculators (separate or with watch), books, note books or written notes, cell phones (with or without camera facility), or any other electronic device will be allowed during the examination.
- (6) Please bring the call letter with your photograph affixed thereon, currently valid Photo identity proof in original and a photocopy of the same ID proof which you bring in original - **THIS IS ESSENTIAL**. Please hand over the call-letter alongwith photocopy of photo identity proof duly stapled together to the invigilator. Currently valid photo identity proof may be PAN Card/Passport/ Driving Licence/Voter’s Card/Bank Passbook with photograph/Photo Identity proof issued by a Gazetted Officer on official letterhead /Photo Identity proof issued by a People’s Representative on official letterhead/Valid recent Identity Card issued by a recognised College/University/Aadhar Card with a photograph/Employee ID/Bar Council Identity card with photograph. Please note that your name as appearing on the call letter (provided by you during the process of registration) should exactly match the name as appearing on the photo identity proof. Female candidates who have changed first/last/middle name post marriage must take special note of this. If there is any mismatch between the name indicated in the Call Letter and Photo Identity Proof you will not be allowed to appear for the exam.
- (7) Your responses (answers) will be analysed with other candidates to detect patterns of similarity of right and wrong answers. If in the analytical procedure adopted in this regard, it is inferred/ concluded that the responses have been shared and scores obtained are not genuine/valid, your candidature may be cancelled. Any candidate who is found copying or receiving or giving assistance or engaging in any behaviour unbecoming of a candidate will not be considered for assessment. Bureau of Indian Standards may take further action against such candidates as deemed fit by it.
- (8) You should bring with you a ball-point pen. A sheet of paper will be provided which can be used for rough work or taking down the question number you would like to review at the end of the test before submitting your answers. After the test is over you **MUST** hand over this sheet of paper to the Test Administrator before leaving the venue.
- (9) The possibility for occurrences of some problem in the administration of the examination cannot be ruled out completely which may impact test delivery and/or result from being generated. In that event, every effort will be made to rectify such problem, which may include the conduct of another examination if considered necessary. Decision of the test conducting body in this regard shall be final. Candidates not willing to accept such change shall loose his/her candidature for this exam.
- (10) If the examination is held in more than one session, the scores across various sessions will be equated to adjust for slight differences in difficulty level of different test batteries used across sessions. More than one session are required if the nodes capacity is less or some technical disruption takes place at any centre or for any candidate.

**IMPORTANT POINTS TO REMEMBER**

You are advised to bring with you the following:

- (i) Call letter with photo affixed thereon and photo ID card in **Original** and photocopy as mentioned in point 6 above.
- (ii) One Ball point pen

**WISH YOU GOOD LUCK**