



# RASHTRIYA ISPAT NIGAM LIMITED

## ON-LINE EXAMINATION - RECRUITMENT OF OPERATORS AND TECHNICIANS

### 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.	Name of the Tests	Number of Questions	Maximum Marks	Duration
1	Discipline/Domain Knowledge	75	75	120 Minutes
2	General Awareness / Knowledge	20	20	
3	English Language	20	20	
4	General Aptitude (i.e. Arithmetic, Reasoning, Data interpretation etc.)	35	35	
	<b>Total</b>	<b>150</b>	<b>150</b>	

The duration of the test is 120 minutes; however you may have to be at the venue for approximately 160 minutes including the time required for logging in, collection of the call letters, going through the instructions etc. All tests except test of English Language will be provided in English and Hindi. You can answer Questions as per time allotted to respective tests. All the questions will have multiple choices. Out of the four options 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 treated as your answer to that question. There will be no penalty for wrong answers marked by you. However, you are advised not to mark your answers by random guessing.**

**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.**

**DISCIPLINE/DOMAIN KNOWLEDGE  
SYLLABUS FOR OPERATOR**

<b>Discipline</b>	<b>Syllabus (75 Questions)</b>
Diploma in Mechanical Engg	Engineering Materials and Material testing Production Technology Engineering Mechanics Strength of Materials Design of Machine Elements Thermal Engineering Hydraulics and Fluid Power Control Systems Industrial Engineering & Management Refrigeration & Air-conditioning Energy sources & Power Plant Engineering
Diploma in Electrical Engg	Electrical Engineering Materials Basic Electrical Engineering D.C. machines & measuring instruments Electrical circuits Electronics engg A.C. machines -I Power systems -I( G& P) Electrical utilization & traction Electrical installation & estimation Industrial management & smart technologies A.C. machines-II Power systems -II (T,D & P) Power electronics & PLC Digital electronics & Micro controllers
Diploma in Mech/ Metallurgy ( For Operator(NDT) post)	Thermodynamics Foundry Technology Engineering Materials Material Testing TQM Industrial Management Steel Making

Some sample questions are given below.

**MECHANICAL**

- Q.1.** The power transmitted through a pipe is maximum when the loss of head due to friction is given by (H = head supplied)
- (1) H/4                      (2) H/3                      (3) H/2                      (4) 2H/3

**ELECTRICAL**

- Q.1.** The total electric flux through any closed surface surrounding charges is equal to the amount of charge enclosed. The above statement is known as \_\_\_\_\_
- (1) Maxwell's first law                      (2) Maxwell's second law  
(3) Gauss's law                                  (4) Coulomb's square law

**METALLURGY**

- Q.1.** Which of the following metals is called a refractory metal ?
- (1) Iron                      (2) Nickel                      (3) Tungsten                      (4) Copper

## SYLLABUS FOR TECHNICIAN

Diploma in Mech / ITI (Fitter)	35 question from Diploma (Mech) Syllabus 40 Questions from ITI-Fitter Trade syllabus
Diploma in Mech / ITI (Mill Wright)	35 question from Diploma (Mech) Syllabus 40 Questions from Mill Wright Trade (MMTM) Syllabus
Diploma in Elect / ITI (Electrician)	35 Questions from Diploma(Elect) Syllabus 40 Questions from ITI Electrician Trade Syllabus
ITI (Electrician) for Technician (Crane)	10 questions from EOT Cranes (basic level) 65 questions from ITI Electrician Trade Syllabus
Diploma in Instrumentation/ ITI ( Instrument Mechanic)	35 Questions from Diploma(Inst) Syllabus *40 Questions from ITI Instrument Mechanic Trade Syllabus
<p><b>*Syllabus for Diploma in Instrumentation :</b>            Electronic Components and devices            Electronic circuits            Digital Electronics            Electronic Measuring Instruments            Process Instrumentation            Linear IC Applications &amp; Communication Systems            Process Control            Analytical Instrumentation            Industrial Electronics &amp; control Systems            Industrial Management &amp; Smart Technologies            Micro Controllers &amp; Applications            Industrial Automation            Instrumentation in Process Industries</p>	

Some sample questions are given below.

### MECHANICAL/ITI (FITTER)

- Q.1.** A finish cut is given to improve the surface finish of a rough milled work piece ?
- (1) Decrease cutting speed, feed rate and depth of cut
  - (2) Increase feed rate, depth of cut and reduce cutting speed
  - (3) Increase cutting speed, reduce feed rate and depth of cut
  - (4) Increase feed rate, depth of cut and cutting speed

### MECHANICAL/ITI (MILL WRIGHT)

- Q.1.** To verify without using an advanced instrument that reference lines traced on the ground are at a right angle (90°), what is the quickest method ?
- (1) Verify with a protractor.
  - (2) Verify the angle with a bevel square.
  - (3) Use the equal diagonals method with a steel tape.
  - (4) Use the squareness method (3-4-5) with a steel tape.

### ELECTRICAL/ITI (ELECTRICIAN)

- Q.1.** What is the best measuring instrument to use for troubleshooting a three-phase motor whose overcurrent protections open instantly when the motor is turned on ?
- (1) Voltmeter
  - (2) Wattmeter
  - (3) Ammeter
  - (4) Megohmmeter

## ITI (ELECTRICIAN) FOR TECHNICIAN (CRANE)

- Q.1.** On a conventional mechanical crane, which of the following components requires an every day oil level verification ?
- (1) Transfer gearbox. (2) Final drive.  
(3) Torque converter. (4) Planetary reduction.

## INSTRUMENTATION/ITI (INSTRUMENT MECHANIC)

- Q.1.** Strain gauge, LVDT and thermocouple are examples of –
- (1) Active transducers (2) Passive transducers  
(3) Analog transducers (4) Primary transducers

## GENERAL AWARENESS/KNOWLEDGE

This test is designed to measure your awareness about the past and present events.

- Q.1.** OSCAR awards are given for best performance in which of the following field ?  
(1) Films (2) Literature (3) Sports (4) Science
- Q.2.** R. K. Laxman is famous for ——  
(1) Painting (2) Cartoons  
(3) Film Direction (4) Other than those given as options
- Q.3.** “Kumbh-Mela” is held in our country after every ——  
(1) 6 years (2) 12 years  
(3) 14 years (4) Other than those given as options
- Q.4.** Who among the following is the current Finance Minister of India ?  
(1) Shri Arun Jaitley (2) Shri P. Chidambram  
(3) Shri Amit Shah (4) Other than those given as options

## 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.1.** 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 '4'. (Ignore the errors of punctuation, if any).

The regaining of freedom as we well know has / given rise for many dormant issues /  
(1) (2)  
and conflicts in our society. No error.  
(3) (4)

- Q.2.** Pick out from the words given below each sentence the word which would complete the sentence correctly and meaningfully.

He wants me to look \_\_\_\_ his garden during his absence.  
(1) at (2) over (3) after (4) into

**Q.3-6.** 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 (3) of rights is duty. If we all discharge our duties, rights will not be (4) to seek. If leaving duties unperformed we run (5) rights, they will escape us like an elusive person. The more we pursue them, the farther (6) they fly.

- Q.3.** (1) end (2) source (3) purpose (4) power  
**Q.4.** (1) far (2) close (3) easy (4) against  
**Q.5.** (1) as (2) after (3) from (4) for  
**Q.6.** (1) off (2) can (3) did (4) could

### GENERAL APTITUDE

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

**Q.1.** 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) Other than those given as options

**Q.2.** 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) Other than those given as options

**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 (4) i.e. 'Other than those given as options' as your answer.

**Q.3.**  $\frac{24}{65} \times \frac{13}{56} \times \frac{5}{7} = ?$

- (1)  $\frac{3}{49}$  (2)  $\frac{15}{245}$  (3)  $\frac{3}{77}$  (4) Other than those given as options

**Q.4.** The interest on a certain deposit at 9% per annum is Rs.405 in one year. How much will be the additional interest in one year on the same deposit at 10% per annum ?  
 (1) Rs. 40.50 (2) Rs. 450 (3) Rs. 855 (4) Other than those given as options

**Q.5-6. 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 :

% of Employees Giving Different Ranks						
Attribute	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.5.** Which attribute for promotion has received the highest rank ?  
 (1) Perseverance (2) Seniority (3) Honesty (4) Sociability
- Q.6.** How many employees gave rank III to intelligence ?  
 (1) 119 (2) 98 (3) 77 (4) 70

### Other Instructions :

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

- (1) The examination will be conducted on-line i.e. on a computer.
- (2) Before clicking on the 'Start' option, the candidates can go through the instructions shown on the screen.
- (3) All tests except of English will be in English and Hindi.
- (4) Only when the 'Start' icon is clicked will the actual test time for test will start.
- (5) Only one question at a time will be displayed on the screen.
- (6) All the questions will have multiple choices. Out of the four answers to a question only one will be the correct answer. **You will have to select the most appropriate answer and 'mouse click' that alternative which you feel is appropriate/ correct. The alternative/ option that is clicked on will be treated as the answer to that question.**
- (7) 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 examination. When the clock runs out the exam ends by default - you are not required to end or submit your exam.
- (8) The Question Palette displayed on the right side of screen will show the status of each question using one of the following symbols:



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



The question(s) "Answered and Marked for Review" will be considered for evaluation.



The question(s) "Marked for Review" will not be considered for evaluation. Hence, no marks will be allocated for the same.

- (9) The Marked for Review status for a question simply indicates that you would like to look at that question again. *If a question is answered and Marked for Review, your answer for that question will be considered in the evaluation.*
- (10) To select a question to answer, you can do one of the following :
  - a) 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.
  - b) Click on Save and Next to save answer to current question and to go to the next question in sequence.
  - c) 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.
- (11) To select your answer to a Question, click on one of the option buttons.
- (12) To change your answer to a Question, click the other desired option button.
- (13) To save your answer, you MUST click on **Save & Next**.
- (14) To deselect a chosen answer to a Question, click on the chosen option again or click on the **Clear Response** button.
- (15) 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.

- (16) 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.
- (17) **Questions that are saved or marked for review after answering will ONLY be considered for evaluation.**
- (18) The candidates are requested to follow the instructions of the Test Administrator carefully. If a 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 the Organization.
- (19) 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.
- (20) After the expiry of time for examination for respective sections, the candidates will not be able to attempt any question or check their answers for respective section.
- (21) Please note :
- a) Candidates will not be allowed to “finally submit” unless they have exhausted the actual test time of the examination.
  - b) Under no circumstances should a candidate click on any of the ‘keyboard keys’ during the test once the exam starts as this will lock the exam.

**B] General Instructions:**

- (1) Please note 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. (Preferably the same photograph as was as uploaded).
- (4) You must scrupulously follow the instructions of the Test Administrator and Organization 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 this 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 this call-letter alongwith photocopy of photo identity proof duly stapled together to the invigilator. Currently valid photo identity proof may be PAN Card/Passport/Permanent 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/E-Aadhar Card with a photograph/Employee ID/Bar Council Identity card with photograph. Please Note - **Ration Card and Learner’s Driving License will NOT be accepted as valid ID proof**. 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. In case of candidates who have changed their name will be allowed only if they produce Gazette notification/their marriage certificate/affidavit.

- (7) Biometric data (right thumb impression and photograph) will be captured at the examination venue both before and after exam. With regards to the same, please note the following :
- (a) If fingers are coated (stamped ink/mehndi/coloured...etc), ensure to thoroughly wash them so that coating is completely removed before the exam day.
  - (b) If fingers are dirty or dusty, ensure to wash them and dry them before the finger print (biometric) is captured.
  - (c) Ensure fingers of both hands are dry. If fingers are moist, wipe each finger to dry it.
  - (d) If the primary finger to be captured is injured/damaged, immediately notify the concerned authority in the test centre.
- (Any failure to observe these points will result in non-admittance for the examination)
- (8) 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. The Organization may take further action against such candidates as deemed fit by it.
- (9) 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.
- (10) The possibility of occurrence 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 movement of candidates, delay in test. Conduct of a re-exam is at the absolute discretion of test conducting body. Candidates will not have any claim for a re-test. Candidates not willing to move or not willing to participate in the delayed process of test delivery shall be summarily rejected from the process.
- (11) 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.
- (12) Please note that a candidate is allowed to appear only once in the online examination. Multiple appearance in online examination will result in cancellation of candidature. In case more than one call letter has been generated, candidates are advised to appear only once on the date and at the time mentioned on the respective call letter. All other call letters are to be surrendered.
- (13) Anyone found to be disclosing, publishing, reproducing, transmitting, storing or facilitating transmission and storage of test contents in any form or any information therein in whole or part thereof or by any means verbal or written, electronic or mechanical or taking away the papers supplied in the examination hall or found to be in unauthorised possession of test content is likely to be prosecuted.
- (14) Instances for providing incorrect information and/or process violation by a candidate detected at any stage of the selection, process will lead to disqualification of the candidate from the selection process and he/she will not be allowed to appear in any Organization recruitment process in the future. If such instances go undetected during the current selection process but are detected subsequently, such disqualification will take place with retrospective affect.

#### **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.
- (ii) One Ball point pen

**WISH YOU GOOD LUCK**