



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली

NATIONAL INSTITUTE OF TECHNOLOGY DELHI

(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संस्थान)

(An autonomous Institute under the aegis of Ministry of Education (Shiksha Mantralaya), Govt. of India)

Plot No. FA7, Zone P1, GT Karnal Road, Delhi-110036, INDIA

दूरभाष/Tele: +9111-33861000, 1001, 1005, वेबसाइट/Website: www.nitdelhi.ac.in

QUESTION PAPER FOR THE POST OF TECHNICIAN (Mechanical Engineering)

(PAY LEVEL-3 , as per the 7th CPC)

Maximum Marks : 100

Time: 150 Minutes

Name of Candidate : _____

Roll No. : _____

INSTRUCTIONS TO CANDIDATES

- The Written Examination shall consist of one paper with Part A, Part B, and Part C, carrying 100 marks in total.
- Part A contains 20 Objective Type questions on General Knowledge, carrying 01 mark each (20 marks).
- Part B contains 60 Objective Type questions on Domain Knowledge, carrying 01 mark each (60 marks).
- Part C contains 05 Descriptive Type questions, each carrying 04 marks (20 marks).
- For Objective Type questions (Part A & B), four options (A, B, C, D) shall be provided and only one correct answer is to be chosen.
- One (01) mark shall be awarded for each correct answer in Part A and Part B.
- Negative marking of 0.25 mark shall be applicable for each incorrect answer in Part A and Part B.
- Unattempted questions in Part A and Part B shall not attract negative marking.
- No negative marking shall be applicable for Part C (Descriptive questions).
- The total duration of the Written Examination (Part A, B & C) shall be 2 hours and 30 minutes (150 minutes).
- Candidates must write their Name, Roll Number and Signature on each page of the Question Paper / Answer Booklet.

- l) Candidates must ensure that the Question Paper / Answer Booklet is complete and free from defects before the examination begins.
- m) Mobile phones, electronic watches, calculators and all electronic gadgets are strictly prohibited in the examination hall.
- n) Cutting, overwriting or use of correction fluid in answers is not permitted.
- o) The Question Paper, Answer Sheet(s) and Admit Card must be returned to the Invigilator after completion of the examination.
- p) Use of unfair means or misconduct during the examination shall lead to cancellation of candidature.
- q) The decision of the Institute authorities shall be final and binding in all matters related to the examination.
- r) In case of any discrepancies, the English Version of the Question shall prevail.

अभ्यर्थियों के लिए निर्देश

- a) लिखित परीक्षा एक प्रश्न पत्र की होगी, जिसमें भाग-A, भाग-B तथा भाग-C सम्मिलित होंगे, तथा कुल 100 अंक होंगे।
- b) भाग-A में सामान्य ज्ञान से संबंधित 20 वस्तुनिष्ठ प्रकार के प्रश्न होंगे, जिनमें प्रत्येक प्रश्न 01 अंक का होगा (कुल 20 अंक)।
- c) भाग-B में विषय/डोमेन ज्ञान से संबंधित 60 वस्तुनिष्ठ प्रकार के प्रश्न होंगे, जिनमें प्रत्येक प्रश्न 01 अंक का होगा (कुल 60 अंक)।
- d) भाग-C में 05 वर्णनात्मक प्रकार के प्रश्न होंगे, जिनमें प्रत्येक प्रश्न 04 अंक का होगा (कुल 20 अंक)।
- e) वस्तुनिष्ठ प्रकार के प्रश्नों (भाग-A एवं भाग-B) के लिए चार विकल्प (A, B, C, D) दिए जाएंगे तथा केवल एक सही उत्तर का चयन करना होगा।
- f) भाग-A एवं भाग-B में प्रत्येक सही उत्तर के लिए एक (01) अंक प्रदान किया जाएगा।
- g) भाग-A एवं भाग-B में प्रत्येक गलत उत्तर के लिए 0.25 अंक की नकारात्मक अंकन किया जाएगा।
- h) भाग-A एवं भाग-B में अनुत्तरित (Unattempted) प्रश्नों पर कोई नकारात्मक अंकन नहीं होगा।
- i) भाग-C (वर्णनात्मक प्रश्नों) में नकारात्मक अंकन लागू नहीं होगा।
- j) लिखित परीक्षा (भाग-A, भाग-B एवं भाग-C) की कुल अवधि 2 घंटे 30 मिनट (150 मिनट) होगी।
- k) अभ्यर्थियों को प्रश्न पत्र / उत्तर पुस्तिका के प्रत्येक पृष्ठ पर अपना नाम, रोल नंबर एवं हस्ताक्षर करना अनिवार्य होगा।
- l) अभ्यर्थियों को यह सुनिश्चित करना होगा कि प्रश्न पत्र / उत्तर पुस्तिका पूर्ण एवं किसी भी प्रकार की त्रुटि से मुक्त हो, परीक्षा प्रारंभ होने से पूर्व।
- m) परीक्षा कक्ष में मोबाइल फोन, इलेक्ट्रॉनिक घड़ियाँ, कैलकुलेटर तथा सभी प्रकार के इलेक्ट्रॉनिक उपकरण सख्त रूप से वर्जित हैं।
- n) उत्तरों में कटिंग, ओवरराइटिंग या करेक्शन फ्लूड का प्रयोग वर्जित है।
- o) परीक्षा समाप्ति के पश्चात प्रश्न पत्र, उत्तर पत्रक(ों) तथा प्रवेश पत्र (एडमिट कार्ड) पर्यवेक्षक को वापस करना अनिवार्य होगा।
- p) परीक्षा के दौरान अनुचित साधनों का प्रयोग या कदाचार पाए जाने पर अभ्यर्थी की उम्मीदवारी निरस्त कर दी जाएगी।
- q) परीक्षा से संबंधित सभी मामलों में संस्थान प्राधिकरणों का निर्णय अंतिम एवं बाध्यकारी होगा।
- r) किसी भी प्रकार की विसंगति की स्थिति में, प्रश्न का अंग्रेजी संस्करण मान्य होगा।

PART A

Q. No.	Question	Answer
1	Which is the largest cricket ground in the world, by capacity? A. Narendra Modi Stadium B. Shaheed Veer Narayan Singh International Cricket Stadium C. Rajiv Gandhi International Cricket Stadium D. Bharat Ratna Shri Atal Bihari Vajpayee Ekana Cricket Stadium	A
2	Which among the following is the correct designation of Hindi in India? A. National language B. Language of communication between states & centre C. The Official Language of the Union of India D. Official and National Language of India	C
3	There is no provision in the Constitution for the impeachment of the A. Chief Justice of India B. Chief Justice of a High Court C. Vice President D. Governor	D
4	Raigad Fort is located in which state? A. Rajasthan B. Maharashtra C. Kerala D. Tamil Nadu	B
5	International Labour Day is observed every year on which day? A. April 29 B. April 30 C. May 1 D. May 2	C
6	Select the correct option for the sentence below- When the teacher entered the class, a student..... on the blackboard. A. Is writing B. Was writing C. Wrote D. Writes	B
7	Find the correctly spelt word- A. Jurisdiction B. Juresdiction C. Jurisdection D. Juriesdiction	A
8	Rearrange the given phrases to form a meaningful sentence- 1. Reading books is a habit 2. But also enlarges the mind 3. Because it not only increases knowledge 4. Which must be cultivated by everybody Please select the correct sequence- A. 1, 2, 3, 4 B. 4, 1, 3, 2 C. 1, 2, 4, 3 D. 1, 4, 3, 2	D

9	Synonym of Installed is- A. Established B. Started C. Settled D. Manufactured	A
10	Antonym of Arrogant is- A. Coward B. Humble C. Rude D. Egotistic	B
11	B's brother is A, D's father is C, B's mother is E. A and D are brothers. How is E related to C? A. Sister B. Sister-in-law C. Niece D. Wife	D
12	A person walks from a point towards North-East direction. After walking 500 m he turns towards South and covers a distance of 400 m. At last, he reaches- A. 100 m North-East from the starting point B. 100 m North from the starting point C. 300 m East from the starting point D. 300 m North-East from the starting point	C
13	Arrange the following words in a meaningful order- 1. Consultation 2. Disease 3. Doctor 4. Treatment 5. Recovery Select the correct option- A. 2, 3, 1, 4, 5 B. 4, 3, 2, 1, 5 C. 2, 3, 4, 1, 5 D. 5, 1, 4, 3, 2	A
14	Find the wrong term in the given series- 4, 7, 12, 22, 38, 71 A. 7 B. 12 C. 22 D. 38	C
15	Choose the number that will complete the second pair in the same way as first pair- 3. : 27 :: 4 : ? A. 24 B. 64 C. 40 D. 44	B

16	<p>If 'TEACHER' is coded as 'VGCEJGT' then what will be code for 'CHILDREN'?</p> <p>A. EJKNFTGP B. EJKNFHTP C. EJKNFGTO D. EJKNEGTP</p>	A
17	<p>The age of Ram is twice the age of Shyam and half the age of Sohan. Shyam is elder than Mohan. Who is the eldest?</p> <p>A. Mohan B. Ram C. Sohan D. Shyam</p>	C
18	<p>The average age of A, B and C is 26 years. If the average age of A and C is 29 years, then what is the age of B?</p> <p>A. 26 years B. 20 years C. 29 years D. 23 years</p>	B
19	<p>A man travelled 30% of his journey at a speed of 85 kmph and the rest of his journey at a speed of 33 kmph. Find his average speed throughout the journey.</p> <p>A. 46.6 kmph B. 48.6 kmph C. 42.6 kmph D. 44.6 kmph</p>	B
20	<p>What does the "Page Layout" tab allow you to adjust?</p> <p>A. Inserting hyperlinks B. Text color C. Fonts and paragraphs D. Margins, orientation, and size</p>	D

PART B

Sr No	Questions
1	The derivative of $\sin x$ with respect to x is: a) $\cos x$ b) $-\cos x$ c) $\sin x$ d) $-\sin x$
2	SI unit of electric current is: a) Volt b) Coulomb c) Ampere d) Ohm
3	The Zeroth law of thermodynamics helps in defining: a) Heat b) Work c) Temperature d) Entropy
4	Stress is defined as: a) Load \times Area b) Area / Load c) Load / Area d) Strain / Stress
5	In casting, excess metal provided to compensate shrinkage is called: a) Riser b) Sprue c) Runner d) Vent
6	Mean of the first 10 natural numbers is: a) 5 b) 5.5 c) 6 d) 10
7	Which gas law relates pressure and volume? a) Charles' law b) Boyle's law c) Avogadro's law d) Dalton's law
8	Lathe machine is primarily used for: a) Drilling b) Milling c) Turning d) Grinding
9	pH of a neutral solution is: a) 0 b) 5 c) 7 d) 14

Sr No	Questions
10	The slope of velocity–time graph gives: a) Displacement b) Acceleration c) Speed d) Distance
11	Elastic limit is the point up to which: a) Material breaks b) Plastic deformation occurs c) Hooke's law is valid d) Stress is zero
12	Which process occurs at constant pressure? a) Isochoric b) Isothermal c) Isobaric d) Adiabatic
13	SI unit of work is: a) Newton b) Joule c) Watt d) Pascal
14	Which of the following is an input device? a) Monitor b) Printer c) Keyboard d) Speaker
15	In statistics, the most frequent value is called: a) Mean b) Median c) Mode d) Variance
16	Resistance welding works on the principle of: a) Gas flame b) Arc heat c) Electrical resistance d) Chemical reaction
17	Acceleration due to gravity on Earth is approximately: a) 8.9 m/s^2 b) 9.8 m/s^2 c) 10.8 m/s^2 d) 7.8 m/s^2
18	A solution having pH less than 7 is: a) Neutral b) Basic c) Acidic d) Saturated

Sr No	Questions
19	Young's modulus is the ratio of: a) Stress / Strain b) Load / Area c) Strain / Stress d) Force / Area
20	Which cycle is used in petrol engines? a) Diesel cycle b) Otto cycle c) Rankine cycle d) Brayton cycle
21	Fourier's law is related to: a) Radiation b) Convection c) Conduction d) Evaporation
22	In MS Excel, a workbook consists of: a) Rows only b) Columns only c) Cells only d) Worksheets
23	Kinetic energy depends on: a) Velocity b) Mass c) Both mass and velocity d) Height
24	Chemical bonding involving sharing of electrons is: a) Ionic b) Metallic c) Covalent d) Hydrogen
25	CNC machine stands for: a) Computer Network Control b) Central Numeric Control c) Computer Numerical Control d) Control Network Computer
26	Probability of an impossible event is: a) 1 b) 0 c) -1 d) 0.5
27	In thermodynamics, a system that exchanges energy but not mass is: a) Open system b) Closed system c) Isolated system d) Adiabatic system

Sr No	Questions
28	The unit of entropy is: a) kJ b) kJ/kg c) kJ/kg·K d) J
29	Which metal is commonly used for electrical wiring? a) Aluminium b) Copper c) Iron d) Lead
30	In forging, metal is shaped by: a) Cutting b) Melting c) Plastic deformation d) Casting
31	The integral of velocity with respect to time gives: a) Acceleration b) Displacement c) Force d) Momentum
32	Valency of oxygen is: a) 1 b) 2 c) 3 d) 4
33	In computing, RAM is: a) Permanent memory b) Secondary memory c) Volatile memory d) Read-only memory
34	Hooke's law is valid up to: a) Ultimate stress b) Elastic limit c) Yield point d) Breaking point
35	Which instrument is used to measure small linear dimensions accurately? a) Steel rule b) Vernier caliper c) Measuring tape d) Protractor
36	SI unit of power is: a) Joule b) Newton c) Watt d) Pascal

Sr No	Questions
37	Boyle's law is valid at: a) Constant volume b) Constant pressure c) Constant temperature d) Constant mass only
38	Welding defect caused by trapped gas is: a) Crack b) Porosity c) Slag inclusion d) Undercut
39	Which of the following is an application of thermodynamics? a) Refrigerators b) Gas compressors c) Power plants d) All of the mentioned
40	Alternating current changes direction: a) Once b) Twice c) Periodically d) Never
41	In a computer, ALU stands for: a) Arithmetic Logic Unit b) Advanced Logic Unit c) Automatic Logic Unit d) Applied Logic Unit
42	Which property resists change in motion? a) Elasticity b) Inertia c) Density d) Viscosity
43	The process of coating metals with zinc is: a) Annealing b) Tempering c) Galvanizing d) Hardening
44	Mean effective pressure is related to: a) Volume b) Work output c) Heat input d) Speed
45	The unit of magnetic flux is: a) Tesla b) Weber c) Henry d) Coulomb

Sr No	Questions
46	Piston rings are produced using which pattern? a) Sweep pattern b) Gated pattern c) Match plate pattern d) Loose piece pattern
47	A compound having same molecular formula but different structure shows: a) Isomerism b) Polymerism c) Allotropy d) Catalysis
48	Which is NOT an operating system? a) Windows b) Linux c) MS Word d) UNIX
49	Heat transfer in solids mainly occurs by: a) Convection b) Radiation c) Conduction d) Evaporation
50	The centroid of a uniform rod lies at: a) One end b) Quarter length c) Midpoint d) Any point
51	Unit of frequency is: a) Newton b) Tesla c) Hertz d) Ampere
52	Chaplets are made of: a) Core sand b) Organic matter c) Wood d) Metal
53	The slope of stress–strain curve in elastic region represents: a) Toughness b) Ductility c) Young's modulus d) Hardness
54	The unit of electric resistance is: a) Ampere b) Volt c) Ohm d) Watt

Sr No	Questions
55	Which software is used for presentations? a) MS Word b) MS Excel c) MS PowerPoint d) MS Access
56	Work done is zero when force is: a) Parallel to displacement b) Perpendicular to displacement c) Opposite to displacement d) At 45° to displacement
57	Which alloy contains copper and zinc? a) Bronze b) Brass c) Steel d) Duralumin
58	The first law of thermodynamics is based on conservation of: a) Mass b) Energy c) Momentum d) Charge
59	A magnetic field is produced by: a) Stationary charge b) Moving charge c) Neutral atom d) Photon
60	The SI unit of pressure is: a) Bar b) Pascal c) Newton d) Joule

PART C

Sr No	Questions
1	Explain the working principle and use of a Micrometer Screw Gauge. State its least count, method of zero error correction, and two common mistakes made by technicians during measurement.
2	Name and explain the functions of any five main parts of a Lathe machine. Also state the purpose of feed mechanism and lead screw during machining operations.
3	Differentiate between drilling, boring, and reaming. State one application of each of these operations in workshop practice.
4	Describe the step-by-step process of preparing a sand mold using a given single-piece pattern. What specific properties must the molding sand possess, and what is the function of the "riser" and "gate" in achieving a defect-free casting?
5	Explain the key differences between the gas welding process and the arc welding process. Detail the differences in heat source, electrode usage, the resulting joint strength and their application.

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QUESTION PAPER FOR THE POST OF TECHNICIAN (Mechanical Engineering)

Answer Key for Part B

Q. No	Ans	Q. No.	Ans	Q. No.	Ans	Q. No.	Ans
1	a	16	c	31	b	46	C
2	c	17	b	32	b	47	a
3	c	18	c	33	c	48	c
4	c	19	a	34	b	49	c
5	a	20	b	35	b	50	c
6	b	21	c	36	c	51	c
7	b	22	d	37	c	52	d
8	c	23	c	38	b	53	c
9	c	24	c	39	c	54	c
10	b	25	c	40	c	55	c
11	c	26	b	41	a	56	b
12	c	27	b	42	b	57	b
13	b	28	c	43	c	58	b
14	c	29	b	44	b	59	b
15	c	30	c	45	b	60	b



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F. No.: NITD/01/Admn/606/2025-26/TEME

Dated: 10.03.2026

NOTICE

Subject: Provisional Result of the Written Test/Examination held on 10.03.2026 for the post of Technician in the Department/Discipline of Mechanical Engineering, NIT Delhi (01 OBC), advertised vide Advt. No.: 08/2025 – reg.

S. No.	Roll No.	Form No	Part A (20 Marks)	Part B (60 Marks)	Part C (20 Marks)	Marks Obtained in written Test/Examination (100 Marks)
1.	25087001	CNDN10028	04.25	25.50	06.00	35.75
2.	25087003	CNDN10489	11.75	36.00	11.50	59.25
3.	25087006	CNDN10727	11.75	49.00	11.00	71.75
4.	25087007	CNDN10878	11.75	01.50	06.00	19.25
5.	25087012	CNDN11324	18.75	25.00	03.00	46.75
6.	25087013	CNDN11370	01.75	05.00	00	6.75
7.	25087014	CNDN11386	11.50	27.00	09.00	47.5
8.	25087015	CNDN11387	11.75	34.25	13.50	59.5
9.	25087017	CNDN11679	12.75	38.50	16.00	67.25
10.	25087020	CNDN12063	13.75	50.25	10.00	74
11.	25087022	CNDN12181	16.25	36.50	15.00	67.75
12.	25087023	CNDN12209	10.50	49.25	12.50	72.25
13.	25087024	CNDN12261	16.50	46.25	09.50	72.25
14.	25087026	CNDN12358	11.25	39.75	06.00	57
15.	25087028	CNDN12389	04.00	35.75	06.50	46.25
16.	25087030	CNDN12421	12.50	35.00	12.50	60
17.	25087033	CNDN9348	14.00	50.00	11.50	75.5
18.	25087035	CNDN9717	16.50	43.50	12.50	72.5
19.	25087036	CNDN9720	04.25	21.25	00	25.5

Note:

Minimum Qualifying percentage is 55% i.e. 55 marks out of 100.

The result of the candidates who appeared for the aforementioned post is provisional in nature and may be subject to change upon receipt and examination of representations, if any, against the provisional answer key.

Further, it is hereby informed that only the candidates who are finally shortlisted, as specified at Point No. 2 under (A) of the document dated 12.12.2025, shall be called to appear for the Proficiency Test for the said post (Ref. F. No. NITD/01/Admn/606/2025-26 dated 12.12.2025).

The selection of candidates shall be subject to meeting all the eligibility criteria and successful verification of documents.

Candidates are requested to regularly visit the Institute website for further updates and notifications.

This issues with the approval of the Competent Authority.

Sd/
(Registrar, NIT Delhi)



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F. No.: NITD/01/Admn/606/2025-26/TEME

Dated: 10.03.2026

NOTICE

Subject: Provisionally shortlisted candidate for the Proficient Test for the post of Technician in the Department/Discipline of Mechanical Engineering, NIT Delhi (01 OBC), advertised vide Advt. No.: 08/2025 – reg.

S. No.	Roll No.	Form No	Part A (20 Marks)	Part B (60 Marks)	Part C (20 Marks)	Marks Obtained in written Test/Examination (100 Marks)
1.	25087033	CNDN9348	14.00	50.00	11.50	75.5
2.	25087020	CNDN12063	13.75	50.25	10.00	74
3.	25087035	CNDN9717	16.50	43.50	12.50	72.5
4.	25087023	CNDN12209	10.50	49.25	12.50	72.25
5.	25087024	CNDN12261	16.50	46.25	09.50	72.25
6.	25087006	CNDN10727	11.75	49.00	11.00	71.75

Note:

The minimum qualifying percentage for the said post in the OBC category is 55%, i.e., 55 marks out of 100. However, only the top six (06) candidates have been provisionally shortlisted against the one (01) advertised post, as specified at Point No. 2 under (A) of the document F. No. NITD/01/Admn/606/2025–26 dated 12.12.2025. Accordingly, the above-mentioned candidates have been provisionally shortlisted for the Proficiency Test scheduled to be held on 16.03.2026 (AN).

The above list is provisional in nature and may be subject to change upon receipt and examination of representations, if any, against the provisional answer key.

The selection of candidates shall be subject to meeting all the eligibility criteria and successful verification of documents.

Candidates are requested to regularly visit the Institute website for further updates and notifications.

This issues with the approval of the Competent Authority.

Sd/-
(Registrar, NIT Delhi)