

- The following is the list of eligible candidates for appearing in the examination for the post of Draughtsman at National Sugar institute, Kanpur.
- The exam is scheduled to be held on **26 Oct 2021** as below -

Paper type	Time		Place of Examination
Written Exam (Multiple Choice Questions)	All candidates	09:00 AM to 10:30 AM	National Sugar Institute, Kalyanpur, Kanpur - 208017
Skill Test (In AutoCAD)	Group-A	11:30 AM to 01:30 PM	
	Group-B	02:30 PM to 04:30 PM	

- Admit cards are already dispatched to the eligible candidates. **In case of non-receipt of admit card due to any reason, the eligible candidates are advised to come to institute for exam on the scheduled date along with a proof of identity in original with a photocopy of the same.**
- The candidates are required to report to NSI Kanpur at least ONE hour before the commencement of the written exam.

Sl. No.	Roll Number	Name of the candidates	Address
1.	2101	Shri Aditya Kumar Tiwari	Shri Aditya Kumar Tiwari, S/o Shri Rajiv Kumar Tiwari, House No. 62, Village – Jankipuram, Kalyanpur Khurd, Thana- Kalyanpur, District- Kanpur Nagar (U.P), 208017
2.	2102	Shri Jyotiraditya Pandey	Shri Jyotiraditya Pandey, S/o Shri Brajesh Pandey, A-62, Gali No-8 Chander Vihar Mandawali Delhi-110092
3.	2103	Shri Avinash Gupta	Shri Avinash Gupta S/o, Shri Pal Babu Gupta LIG-94, Vaidehi Vihar, Jarauli Phase-2 Kanpur, Pin No.208027
4.	2104	Shri Ankur Shukla	Shri Ankur Shukla S/o, Shri Manoj Kumar Shukla E.W.S 764/876 Ratanpur Colony, Panki, Kanpur (U.P) 208020
5.	2105	Shri Shubham Raj	Shri Shubham Raj S/o, Shri Santosh Kumar E.W.S.-418 A, Awas Vikas-3, Kalyanpur, Kanpur (U.P), 208017

6.	2106	Shri Pawan Kumar	Shri Pawan Kumar S/o, Shri Munna Lal 1233/21 Chandipurwa Naubasta, Kanpur (U.P), 208021
7.	2107	Shri Mohammad Talha	Shri Mohammad Talha, S/o Shri Abdul Nasir 123/496 Fazal Ganj, Kanpur Nagar, (U.P), 208012
8.	2108	Shri Shivam Pal	Shri Shivam Pal S/o Smt Suman Pal Khasra No. 1064/16, Shastrinagar Bholakhera Lucknow (U.P) - 226023
9.	2109	Shri Pankaj Sharma	Shri Pankaj Sharma, S/o Shri Gulab Sharma 301-A Machhariya Road, Naubasta, Kanpur, (U.P), 208021
10.	2110	Shri Akash Dixit	Shri Akash Dixit, S/o Shri Prem Chandra Dixit 117/O/196 'A' Geeta Nagar, Kanpur, (U.P), 208025
11.	2111	Shri Vikram Kumar	Shri Vikram Kumar, S/o Shri Ashok kumar H.No-95/A, Sadanand Nagar ahirwan Harjinder Nagar, Kanpur, (U.P), 208007.
12.	2112	Km. Arati	Km. Arati, D/o Shri Sikandar Kumar Vill-Basupur, Post-Marikpur, Dist-Jaunpur, (U.P), 222203.
13.	2113	Shri Laraib Ahmad	Shri Laraib Ahmad, S/o Shri Ataulah House No.-53 KHA, Vill-Kaulachak, Post-Banjariya, Deoria, (U.P), 274408
14.	2114	Shri Harshit Singh Sengar	Shri Harshit Singh Sengar, S/o Shri Rakesh Singh Sengar 128/310-Y-1 Kidwai Nagar, Kanpur, (U.P), 208011
15.	2115	Shri Shashvat Sahu	Shri Shashvat Sahu, S/o Shri Surya Prakash Sahu C77 Rajeev Nagar, Yashoda Nagar, Kanpur Nagar, (U.P), 208011

16.	2116	Shri Amit Kumar	Shri Amit Kumar, S/o Shri Ashok Kumar Ward No. 2, Upadhayay Colony, Rampur Litiha Bhatpar Rani, Deoria (UP) Pin-274702
17.	2117	Shri Shivanshu Shukla	Shri Shivanshu Shukla, S/o Shri Anil Kumar Shukla H.No. 116, CPWD Colony, IIT Gate Kalyanpur Kanpur (UP) - 208016
18.	2118	Shri Kaushal Kumar Patel	Shri Kaushal Kumar Patel, S/o Shri Shiv Lal Patel Vill-Pure, Post-Kachhawa Road, Dist-Varanasi (U.P), 221313.
19.	2119	Shri Sachin Prajapati	Shri Sachin Prajapati, S/o Shri Ram Jiwan Prajapati 102-A, Surendra Nagar, Rawatpur, Kanpur Nagar (U.P), 228019
20.	2120	Shri Vikas Modanwal	Shri Vikas Modanwal, S/o Shri Gopal Modanwal Vill/Post-Kolhui, Dist-Maharajganj (U.P), 273309
21.	2121	Shri Prashant Joshi	Shri Prashant Joshi, S/o Shri Murli Manohar Joshi Qtr. No.9-II-7, Obra Colony, Obra Sonebhadra (U.P), 231219
22.	2122	Shri Ajay Pratap	Shri Ajay Pratap, S/o Shri Suresh Narayan Singh Ashok Nagar (South), Ghatampur, Kanpur Nagar (U.P), 209206
23.	2123	Shri Aniket Tiwari	Shri Aniket Tiwari, S/o Shri Ashok Kumar Tiwari EWS-142, Awas Vikas No-03, Panki, Kalyanpur Road, Kanpur (U.P), 208017
24.	2124	Shri Gayas Shahrukh	Shri Gayas Shahrukh, S/o Shri Mohd. Shakeel 3/738, Ruchi Khand-I Sharda Nagar Lucknow (U.P), 226012
25.	2125	Shri Imran Khan	Shri Imran Khan, S/o Shri Nishar Ahamad Savaiya, Raniganj, Pratapgarh (U.P), 230304

26.	2126	Shri Mohd Faizan	Shri Mohd Faizan, S/o Shri Abdul Haq Mohalla- Devistha Town Mohammadi Kheri Dist-Lakhimpur Kheri (U.P), 262804
27.	2127	Shri Amaresh Chaudhary	Shri Amaresh Chaudhary, S/o Shri Ram Kumar Chaudhary, Vill/Post-Deisand, Dist-Basti (U.P), 272123
28.	2128	Shri Azhar	Shri Azhar, S/o Shri Jalaluddin 738/4, Street No.9, Near Engine Shed Manjit Nagar Ludhiana Punjab - 141001
29.	2129	Shri Ajay Kumar Kannaujiya	Shri Ajay Kumar Kannaujiya, S/o Shri Bedi Prasad MO-Quazipur Dhobi Tola, Post-Maghar, Distt-Santkabir Nagar (U.P), 272173
30.	2130	Shri Chiranjeevi S	Shri Chiranjeevi S, S/o Shri Shanmugam V L11/7, Tnhb Street, Gummidipoondi, Chennai, 601201
31.	2131	Shri Sanjeev Kumar	Shri Sanjeev Kumar, S/o Shri Prabhu Dayal 1551/92 Madhav Puram IIT Society Kalyanpur, Kanpur (U.P), 208016
32.	2132	Shri Lalit Prakash Mishra	Shri Lalit Prakash Mishra, S/o Shri Raman Bihari Mishra H.No- 68/593 Near UCO Bank Dholi Pyau, Mathura (U.P), 281001
33.	2133	Shri Piyush Chaudhary	Shri Piyush Chaudhary, S/o Shri Shiv Pal Chaudhary Vill – Kant Ganga PO – Bhujani Sant Kabir Nagar (U.P) – 272175
34.	2134	Shri Ravi Kumar Kaushal	Shri Ravi Kumar Kaushal, S/o Shri Sewak Ram Kaushal Vill- Kotwa Sadak, Post- Hathaundha, Distt- Barabanki (U.P), 225405
35.	2135	Shri Jitendra Kumar	Shri Jitendra Kumar, S/o Shri Vishnu Lal Vill- Jasanwara, Dewa, Barabanki (U.P), 225301,

36.	2136	Shri Shivam Dubey	Shri Shivam Dubey, S/o Shri D R Dubey 74, Gayatri Nagar Near AFS Gate, Nainital Road, Izatnagar, Bareilly (U.P), 243122,
37.	2137	Shri Pravin Verma	Shri Pravin Verma, S/o Shri Satish Chandra Verma 145, Shiv City Indore (MP) – 452012
38.	2138	Shri Sagar	Shri Sagar, S/o Shri Yogendra Kumar H.No. 621, O.C.F. Colony Sector – 29A Chandigarh - 160030
39.	2139	Shri Aman Kanaujiya	Shri Aman Kanaujiya, S/o Shri Chandra Shekhar 116/440 Ram Lala Road, Rawatpur Gaon, Kanpur Nagar (U.P), 208019
40.	2140	Shri Sunil Kumar Pal	Shri Sunil Kumar Pal, S/o Shri Som Nath Pal H.No- 518, Nankari, IIT, Kanpur (U.P), 208016
41.	2141	Km. Nisha Singh	Km. Nisha Singh, D/o Shri Krishna Nand Singh Ward No- 4, Buddha Nagar, Piprahi Hata, Kushinagar (U.P), 274206
42.	2142	Shri Randhir Singh	Shri Randhir Singh, S/o Shri Rajendra Prasad Singh Vill/P.O- Pachewara, Chunar, Dist- Mirzapur (U.P), 231305
43.	2143	Shri Totan Ghosh	Shri Totan Ghosh, S/o Shri Tentul Ghosh Vill- Pabakhali, P.O- Shibnibash, P.S- Krishananj, Dist- Nadia (West Bengal), 741509
44.	2144	Shri Vinay Pal	Shri Vinay Pal, S/o Shri Jhabol Shanker Pal 40, Radha Puram Gova Garden Kalyanpur, Kanpur (U.P), 208017
45.	2145	Shri Hemant Suman	Shri Hemant Suman, S/o Shri Sohan Lal Suman H.No.67, Kamla Nano, Atul Road Near Sukhadiya Stadium Dist. – Bhilwara Rajasthan - 311001

46.	2146	Shri Ashutosh Pandey	Shri Ashutosh Pandey, S/o Shri Harinarayan Pandey H.No-117, Adarsh Vihar, P.O- New PAC Line, Kanpur (U.P), 208015
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Syllabus

Theory

1. **Nomenclature, description and use of drawing instruments & various equipment used** in drawing office. Their care and maintenance.
2. **Lay out of a drawing sheet** as per B.I.S. Lines and their meanings
3. **Type of lettering proportion** and spacing of letters and words.
4. **Terms & definitions**- polygons and circles
5. **Definition of ellipse, parabola, hyperbola, different methods of their construction.** Definition & method of drawing involutes cycloid curves, helix & spiral.
6. **Terminology** – feature, functional feature, functional dimension, datum dimension, principles. Units of dimensioning, system of dimensioning, Method of dimensioning & common features.
7. **Planes and their normal, projections.**
8. **Projections and orthographic projection.** First angle and third angle projection.
9. **Principal of orthographic projection.** Projection of solids like prism, cones, pyramids and frustums in various position.
10. **Importance of free hand sketching, machine drawing.** Material and equipment required in sketching.
11. **Constructions of different types of scales, their appropriate uses, Principle of R.F, diagonal & Vernier.**
12. **Importance sectional views.** Types of sectional views & their uses. Parts not shown in section.
13. **Solution of problems to find out the true shape of surfaces when solids are cut by different cutting planes.**
14. **section lines of different materials, conventional signs, symbols & abbreviations, hatching.**
15. **Definition of development, its need in industry & different method of developing the surfaces.**
16. **Definition of intersection & interpenetration curves.** Common method to find out the curve of interpenetration
17. **Solution of problems on interpenetration of prism, cones, & pyramids with their axes intersecting at an angle.** Intersection of cylinder.
18. **Principle of isometric projection, Difference between Isometric drawing & Isometric projection.** Isometric scale. Dimensioning an isometric drawing.
19. **Different methods of drawing Isometric views.** Principle and types of oblique projection Advantage of oblique projection over isometric projection.
20. **Types of perspective projection** Fundamental concept and definition, Location of station point.
21. **Screw threads, terms nomenclature, types of screw thread, proportion and their uses, threads conventions.**

22. **Types of nuts & their proportion, uses.** Types of bolts and studs, and their proportion, uses. Different types of locking devices. Different types of machine screws, cap screws, set screws and their specification.
23. **Different types** of foundation bolts.
24. **Types of assembly drawing,** types of detailed drawing, preparation of bill of materials. Description of Welded Joints and their representation (Actual and Symbolic) Indication of Welding Symbol on drawing as per BIS.
25. **Purpose, terms, different types** of key (Heavy duty and Light duty) and proportions, use of cotters and pins
26. **Types of fastening materials,** types of rivets, their proportions and uses. Types of riveted joints, terms and proportions of riveted joints. Conventional representation
27. **Causes of failure of riveted joint** efficiency of riveted joints.
28. **Description and application** of simple measuring tools, Description of vices, hammers, cold chisel, files, etc. And proper method of using them. Method of using precision measuring instrument such as Vernier height gauges
29. **Name and brief description of common equipment** necessary for sheet metal work. Different types and uses of joints employed in sheet metal work
30. **Name and brief description of the Hand tools** identification of gas cylinders. Different types of welded joints and necessary preparation required for these. Welding symbols as applied to drawing. Safety precautions, Hand tools used for molding. The description, use and care of hand tools
31. **Limits, fit, tolerance.** Tolerance dimensioning, geometrical tolerance. Indications of symbols for machining and surface finishes on drawing (grades and micron values) Production of interchangeable parts, geometrical tolerance. Familiarization with IS: 919, IS:2709.
32. **Couplings,** necessity of coupling, classification of couplings. Uses and proportion of different types of couplings. Materials used for couplings.
33. **Use of a bearing, types of bearing,** frictional and anti-frictional bearings.
34. **Material used for frictional bearings.** Properties of frictional bearing (sliding bearing) materials.
35. **Parts of anti-frictional bearings** (ball, roller, thrust ball, needle & taper roller) Materials and proportion of parts. Difference between frictional and anti-frictional bearings. Advantages of anti-frictional bearings.
36. **Belts-power transmitted** by belt. Materials of belts slip and creep Velocity of belt. Arc of contact. Simple exercise in calculation of belt speeds, nos. Of belts needed in V-belt drive, velocity, pulley ratio etc. Standard pulleys width of pulley face, velocity ratio chain drive.
37. **Piping materials** and specifications of W.I. & Steel pipes. Pipe threads. Pipe fittings. Specifications of fittings. Brief description of different types of pipe joints.
38. **Use of gears in transmission** of power. Different types of gears. Cast gears and machined gears. Use of udomograph for drawing profile of gears etc
39. **Use of Cam in industry.** Types of cam, kinds of motion, displacement diagrams. Terms

- used in cam. Types of followers. Related theories.
40. **Brief description of petrol**, diesel and gas engines
 41. **Working principle** of valves and their description.
 42. **Brief description**, working principle and function of hydraulic jack, press accumulator, ram etc.
 43. **Structural Steel B.I.S.** Specification for rolled sections. Structural steel roof truss joints and supports.
 44. **Different locating** methods clamping devices. Different locating methods clamping devices.
 45. **Lay out of Machine foundations.** Brief treatment of the principle Involved and the precautions to be observed. Lay out of machine Foundation.
 46. **Function of gauges**, different types of gauges and their uses. Use of templates in industry. Related theories.
 47. **Related theories** of press tool with tolerance
 48. **Working of Blow off cock & simple carburetor**
 49. **Related Theory:** Tile stock and revolving center, Rams, bottom safety valve, tool post of shaping machines.

SKILL

1. Prepare different types of documentation as per industrial need by different methods of recording information.
2. Construct different Geometrical figures using drawing Instruments.
3. Draw orthographic Projections giving proper dimensioning with title block using appropriate line type and scale.
4. Construct free hand sketches of simple machine parts such as tool post of a Lathe with correct proportions.
5. Draw Sectional views showing orthographic, isometric and oblique projections.
6. Develop surface and interpenetration of solid in orthographic projection.
7. Draw different types of fasteners and locking devices as per BIS convention.
8. Acquire basic knowledge on tools and equipment of Allied trades viz. Fitter, Turner, Machinist, Sheet Metal Worker, Welder, Foundry man, Electrician and Maintenance Motor Vehicles and apply it in day to day work.
9. Draw different couplings and bearings with tolerance dimension indicating surface finish symbol.
10. Creating of part list/ BOM for sub assembly and assembly drawings.
11. Introduction and overview of various CAD Software's available in market which are used in different industries.
12. Creation of Standard templates and Callouts that are required Drafting in CAD Software

13. Create objects on drawing space using toolbars, commands and menus in CAD application software.
14. Customize object drawing on CAD using Toolbars viz. Draw, Modify, Dimensioning, Format Layer and Style.
15. Create objects using 3D Modeling Space and Print Preview and Plotting in CAD. Prepare object in 3D and convert it 2D from 3D only.
16. Draw detail and assembly drawing of machine parts viz., Pulleys, Pipe fittings, Gears and Cams using CAD.
17. Draw IC Engine Parts with dimensioning and tolerance using CAD, applying quality concept.
18. Draw detail and assembly of Manufacturing and Process tools applying conventional signs & symbols using CAD.
19. Measure and inspect different components by using gauges and measuring instruments and check for accuracy without any assistance.
20. Interpretation and representation ISO tolerances and fits. Create document of limits, Fits and Tolerances used in various parts of machine assembly.
21. Create and plot a machine part with assembly, specify detail in Title Block and layout space in CAD.
22. Representation of sealing elements, springs and fluidic power e.g. hydraulic and pneumatic elements.
23. Create production drawing of machine part/complex drawing applying GD&T (Geometrical Dimensioning & Tolerances).
24. Create documents for various materials used in various parts with material properties and its use in that part.
25. Basic information about various ERP packages used in various industries.
26. Basic information of 7 QC tools & Basic manufacturing processes for various components.