

Ref. No. NIDMP/HR/Rectt.-Tech/02/(14)2021-22

Dated: 17.02.2022

**Notification No. 07/2022**

**Subject: Syllabus for written exam and skill test for Technical Posts.**

1. Reference is made to the advertisement No. NIDMP/Rectt./Tech./2021/01 dated 01.10.2021 for technical positions uploaded on NID MP website & published in national dailies and Employment News, regarding recruitment to various technical posts on direct recruitment/ contract basis.
2. Candidates who have applied for various technical posts in response to the above cited advertisement by submitting online application are requested to note syllabus as furnished below for written exam and skill/proficiency test, as applicable.

**Broad Syllabus details:**

S. No	Post	for written test	For Skill/ Proficiency Test
1	<b>Associate Senior Technical Instructor</b>	Specialization: <b>Woodworking, Joinery &amp; Furniture making expert</b> Professional Knowledge: Safety precaution of the carpentry hand tools. Workshop discipline and safety, first aid etc. Introduction to the trade and to carpentry hand tools, their classification, names, and the uses. Measuring, marking, and testing tools, types, sizes, uses, etc. Introduction to timber: growth of a trees, cross-section of an exogenous tree trunk, parts, formation. Parts of a tree. Functions and identification of timber and defects, diseases of timber viz. Knots, shakes, grains etc. Knowledge and operations of the wood working tools and machines as per the industry application. Wood working machines: Description, types, sizes, parts, functions, operations. Safety precautions, care, and maintenance. Oiling, greasing etc. Seasoning of Timber: Types, advantages, and disadvantages, stacking (vertical and	Familiarization with the workshop: Wood working sections and wood working machine shop. show different exercises / jobs done by the trainees in the previous year batches etc. show different audio – visual aids, library, show room etc. Identification and Familiarization of hand tools and wood working machines. Demonstration and use of measuring, marking, and testing tools. Design of the furniture designs using the available design  <b>PROTOTYPE MAKING:</b> 1. Use of various of Hand Tools related to the wood working



	<p>horizontal) Moisture content in timber and its effect on timber, moisture meter and oven method.</p> <p>Characteristics of wood, Physical and mechanical properties of wood, qualities of good timber.</p> <p>Preservation of timber: Chemical treatment of timber - types, process etc. and preservatives used.</p> <p>Description of timbers used in furniture making work: - Wood as available in the Indian/local market.</p> <p>Design of Furniture's for different purpose: Bedroom, dining Hall, Library, Office, Workshop, Classroom.</p> <p>Preparation of bill of materials and simple estimation.</p> <p>Method of preparation of surface for staining, tools and equipment required. Sandpaper - types, grades, size &amp; uses. Portable sander machine and uses. Preparation of putty and use.</p> <p>Staining: - Type, process, methods, and staining materials. Different staining methods applied for different timber.</p> <p>About Industrial Design and role of furniture industry and design in Industrial Design.</p> <p>Types of furniture design practiced in India.</p> <p>Soft Skills</p> <p>Project design, Understanding consumer Workshop and workflow management in labs/studios, Care &amp; maintenance of material, machinery, tools and equipment's.</p> <p>Ability to use/identify/implement cost and logistic aspects of course requirements and their delivery.</p> <p>Design process, Applications of product/ Industrial design.</p> <p>General English Communication - essay writing or Letter Writing</p>	<ol style="list-style-type: none"> <li>2. Working on wood working machines</li> <li>3. Development of any wood joints using the hand tools</li> <li>4. Polishing and Finishing of the product</li> </ol>
2	<p><b>Associate Senior Technical Instructor</b></p> <p><b>Specialization: Motion Graphics.</b></p> <p>Knowledge, World view (Domain)</p> <p>Research, Analysis strengths: - Knowledge of Graphic Design definitions vis-à-vis application in the present industry and professional practice, types of Graphic Design such as user interface, publishing, packaging, environmental graphics, art and illustration, etc., and related importance to achieve business goals.</p>	<p>Practical tasks related to topics mentioned in the broad syllabus for written test and as relevant for Job profile of the post.</p>



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Prototyping/Outcome: - Essential technology for graphic design, Graphic Design software and hardware, Impact of new technologies such as virtual reality, augmented reality, artificial intelligence, Physical immersion, Sensory design

Quality: - Control of quality of the delivered course objectives

Promo: - Knowledge of future trends in graphic design promotional material and promotional design,

Logistic: - Maintenance of equipment's, workshop and computer lab, Manpower management in workshop

#### Tech./tool Skills

Research, Analysis strengths: - Understanding of the nature and role of Graphic Design with respect to emerging global trends such as information overload and complexity, artificial intelligence, sensory design in virtual world, recycle economy, social development and environmental sustainability.

Prototyping/Outcome: - Ability to articulate and communicate thoughts and ideas in the field of graphic design in written and verbal forms, ability to design and deliver presentation on given subject areas, proficiency in use of graphic design software.

Quality: - Knowledge of quality control in marketing & promotion, use of Technology and quality management assurance. Ability to teach quality control parameters in processes to learner

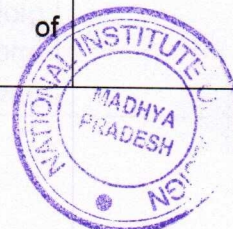
Promo: - Advertising & public relations (PR), Product life cycle, Visual communication, mapping Brand positioning in market

Logistic: - Ability to develop/conduct design or technical workshop for graphic designing.

#### Communication

Research, Analysis strengths: - Understanding and experience to transform knowledge into shareable communication within department. Ability to communicate across disciplines and with managements, report generation of progress, assessment and feedback communication.

Prototyping/Outcome: - Preparation of proposals, corporate communications



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		<p>Quality: - Effective communication in English language as mode of teaching, use of appropriate communication process and medium to address communication gaps</p> <p>Promo: - Sharing of Online and offline research/education material data resource within peers and learners</p> <p>Logistic: - understanding of required learning environment and platforms with students both real and virtual (classroom/sharing) Education</p> <p>Research, Analysis strengths: - Methods of building and sharing knowledge in design, Teaching experience, Ethics in education</p> <p>Prototyping/Outcome: - Creating outline for sharing the data and information as outcome and preparing assessment</p> <p>Quality: - Knowing the best practices in education similar areas. Seeking improvement in quality, creating quality control parameter for education and delivery</p> <p>Promo: - Understanding and study of domain's popular colleges with similar courses education and delivery</p> <p>Logistic: - Resources on applications of appropriate tools for present and future improvement design and professional education</p>	
3	<p><b>Associate Senior Design Instructor</b></p>	<p><b>Specialization: Photography</b></p> <p>"Knowledge, Worldview (Domain):</p> <p>Research, Analysis strengths: Photography, as a communication medium, Design concept development, research</p> <p>Prototyping/Outcome &amp; soft skills: setting up photographic equipment, taking pictures, editing and retouching images, choosing and setting up locations, reproducing and framing photographs.</p> <p>Quality control: Control of quality in course delivery to meet the desired course objectives</p> <p>Logistics: Maintenance of photography lab &amp; equipment's</p> <p>Tech./tool Skills</p> <p>Research, Analysis strengths: - Understanding of the nature and role of Photography with respect to emerging global trends such as information overload and complexity, social development and environmental sustainability.</p>	<p>Practical tasks related to topics mentioned in the broad syllabus for written test and as relevant for Job profile of the post.</p>



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Prototyping/Outcome: - Technical skill in photography, film, art, design or media studies and relevant software.

Quality: - Creativity, Patience and concentration, Attention to detail, Strong networking skills, Teamwork skills

Promo: - Awareness regarding upcoming events and competitions related to the field of film and photography. Photography and event coverage for promotion purpose.

Logistic: - Ability to develop/conduct design or technical workshop for Photography.

#### Communication

Research, Analysis strengths: - Understanding and experience to transform knowledge into shareable communication within department. Ability to communicate across disciplines and with managements, report generation of progress, assessment and feedback communication.

Prototyping/Outcome: - Preparation of proposals, corporate communications

Quality: - Effective communication in English language as mode of teaching, use of appropriate communication process and medium to address communication gaps

Promo: - Sharing of Online and offline research/education material data resource within peers and learners

Logistic: - understanding of required learning environment and platforms with students both real and virtual (classroom/sharing)

#### Education

Research, Analysis strengths: - Methods of building and sharing knowledge in design, Teaching experience, Ethics in education

Prototyping/Outcome: - Creating outline for sharing the data and information as outcome and preparing assessment

Quality: - Knowing the best practices in education similar areas. Seeking improvement in quality, creating quality control parameter for education and delivery

Promo: - Understanding and study of domain's popular colleges with similar courses education and delivery



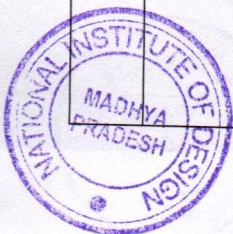
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		Logistics: Resources on applications of appropriate tools for present and future improvement design and professional education	
4	<b>Associate Senior Design Instructor</b>	<p><b>Specialization: Graphic Designer</b></p> <p>Research, Analysis strengths: - Knowledge of Graphic Design definitions vis-à-vis application in the present industry and professional practice, types of Graphic Design such as user interface, publishing, packaging, environmental graphics, art and illustration, etc., and related importance to achieve business goals.</p> <p>Prototyping/Outcome: - Essential technology for graphic design, Graphic Design software and hardware, Impact of new technologies such as virtual reality, augmented reality, artificial intelligence, Physical immersion, Sensory design</p> <p>Quality: - Control of quality of the delivered course objectives</p> <p>Promo: - Knowledge of future trends in graphic design promotional material and promotional design,</p> <p>Logistic: - Maintenance of equipment's, workshop and computer lab, Manpower management in workshop</p> <p>Tech./tool Skills</p> <p>Research, Analysis strengths: - Understanding of the nature and role of Graphic Design with respect to emerging global trends such as information overload and complexity, artificial intelligence, sensory design in virtual world, recycle economy, social development and environmental sustainability.</p> <p>Prototyping/Outcome: - Ability to articulate and communicate thoughts and ideas in the field of graphic design in written and verbal forms, ability to design and deliver presentation on given subject areas, proficiency in use of graphic design software.</p> <p>Quality: - Knowledge of quality control in marketing &amp; promotion, use of Technology and quality management assurance. Ability to teach quality control parameters in processes to learner</p>	Practical tasks related to topics mentioned in the broad syllabus for written test and as relevant for Job profile of the post.



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		<p>Promo: - Advertising &amp; public relations (PR), Product life cycle, Visual communication, mapping Brand positioning in market          Logistic: - Ability to develop/conduct design or technical workshop for graphic designing.</p> <p>Communication          Research, Analysis strengths: - Understanding and experience to transform knowledge into shareable communication within department. Ability to communicate across disciplines and with managements, report generation of progress, assessment and feedback communication.          Prototyping/Outcome: - Preparation of proposals, corporate communications          Quality: - Effective communication in English language as mode of teaching, use of appropriate communication process and medium to address communication gaps          Promo: - Sharing of Online and offline research/education material data resource within peers and learners          Logistic: - understanding of required learning environment and platforms with students both real and virtual (classroom/sharing)</p> <p>Education          Research, Analysis strengths: - Methods of building and sharing knowledge in design, Teaching experience, Ethics in education          Prototyping/Outcome: - Creating outline for sharing the data and information as outcome and preparing assessment          Quality: - Knowing the best practices in education similar areas. Seeking improvement in quality, creating quality control parameter for education and delivery          Promo: - Understanding and study of domain's popular colleges with similar courses education and delivery          Logistic: - Resources on applications of appropriate tools for present and future improvement design and professional education.</p>	
5	Design Instructor	<p><b>Specialization: IT related expertise for Industrial Design</b>          Focus on latest design trends for material selection and design process on the following topics:</p>	<p>Prototype making 3D Modelling as per the industrial standards.          1. 3D modelling, Assembly and Drafting</p>



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	<p>Engineering Design, Mechanical System Design, Material Properties, Design Process, Tools Design, Design of Jigs and Fixtures, Manufacturing process, Advanced Manufacturing Process, QC Parameters, Computer Aided Process Planning, Commands used in the CAD Software.</p> <p>Generation of Drawing, Mechanical System Design Aided Process Planning, Manufacturing Processes, Material Properties, Design process, Applications of product/ Industrial design. General English Communication - essay writing or Letter Writing.</p> <p>Soft Skills Project design, Understanding consumer and us Workshop and workflow management in labs/studios, Care &amp; maintenance of material, machinery, tools and equipment. Ability to use/identify/implement cost and logistic aspects of course requirements and their delivery. Design process, Applications of product/ Industrial design. General English Communication - essay writing or Letter Writing</p>	<p>of parts as per the industrial standards</p> <ol style="list-style-type: none"> <li>2. Generation of Bill of Materials.</li> <li>3. CAM operations.</li> <li>4. Rendering of the product</li> </ol>
6	<p><b>Design Instructor</b></p> <p><b>Specialization: Knitwear Expert Knowledge, Worldview (Domain):</b></p> <p><b>a. Research, Analysis strengths:</b> Basics of Textile theory (Knits), Design concept development, Garment technology, Applied arts</p> <p><b>b. Prototyping/Outcome &amp; soft Skills:</b> Methods of fabric construction - weaving, felting, knitting etc., methods of surface design and value addition - printing, relief, structuring, de- construction etc</p> <p><b>c. Quality control:</b> Appropriate referencing &amp; credits, Control of quality, authenticity of shared knowledge delivered through lectures, media</p> <p><b>d. Logistics:</b> Ability to conduct workshops and skill courses through required tools and logistics, understanding domain's state of the art tools, machinery and technology and their sources, ability to identify new material and their sources.</p> <p><b>Soft Skills</b></p> <p><b>a. Research, Analysis strengths:</b> Project design, Understanding consumer.</p> <p><b>b. Prototyping/Outcome:</b> Workshop and workflow management in labs/studios, Care &amp;</p>	<p>Practical tasks related to topics mentioned in the broad syllabus for written test and as relevant for Job profile of the post.</p>



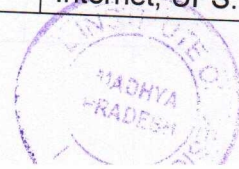




		<p>maintenance of material, machinery, tools and equipment.</p> <p><b>c. Logistics:</b> Ability to use/identify/implement cost and logistic aspects of course requirements and their delivery.</p> <p><b>Tech./tool Skills</b></p> <p><b>a. Research, Analysis strengths:</b> Geometric design by software, soft materials, Knitting, Applied arts on knits, Colour and composition applications</p> <p><b>b. Prototyping/Outcome:</b> Machine operation, computer (CAD/ Nedgraphics etc.) applications for Knitted textile design, material, pattern, lab/studio application exposure in textile and fashion, Material exploration applications, knowledge of tools and techniques.</p> <p><b>c. Quality:</b> Knowledge of quality control in methods of Knitted textile construction and finishing of the final output. Ability to teach QC parameters in processes to learner</p> <p><b>d. Logistics:</b> Ability to develop and conduct a technical workshop for home textile construction</p> <p><b>Communication</b></p> <p><b>a. Research, Analysis strengths:</b> Ability to understand and use basic communication for learning. Needs to communicate with disciplines time to time on requirements and feedback.</p> <p><b>b. Prototyping/Outcome:</b> Use of appropriate textile construction vocabulary during demonstrations periodic Progress report submission.</p> <p><b>c. Quality:</b> Effective communication in instructing.</p> <p><b>d. Logistics:</b> Workshop and Lab communication arrangements, Handling equipment indent &amp; purchase communication.</p> <p><b>Education (Teaching)</b></p> <p><b>a. Research, Analysis strengths:</b> Methods of building and sharing knowledge in design, Teaching experience, Ethics in education</p> <p><b>b. Prototyping/Outcome:</b> Make the applied learning meet education goals and objectives as per curriculum</p> <p><b>c. Quality:</b> Knowing the best practices in education similar areas. Seeking improvement in quality, creating QC parameter for delivery</p> <p><b>d. Promotional:</b> Understanding and study of domain's popular colleges with similar courses education and delivery.</p> <p><b>e. Logistics:</b> Resources on applications of appropriate tools for present and future improvement design and professional education</p>	
7	Assistant Engineer (Civil)	1. Engineering Mechanics, Solid Mechanics and Structural Analysis.	1. Domain field knowledge in the relevant area specific to the post related to the

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		<ol style="list-style-type: none"> <li>2. Fluid Mechanics and Water Resources Engineering.</li> <li>3. Surveying and Levelling.</li> <li>4. Quantity Surveying and Valuation.</li> <li>5. Building materials.</li> <li>6. Construction Technology &amp; Construction Management.</li> <li>7. Geo-technical Engineering.</li> <li>8. Environmental Engineering.</li> <li>9. Design of Structures.</li> <li>10. Transportation Engineering and Urban Planning.</li> <li>11. General English, General Hindi, Quantitative Aptitude, Verbal and Non-Verbal Reasoning, General Studies &amp; Current Affairs.</li> <li>12. Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work, Internet, e-mail and various online tools used in day-to-day office work, central government rules, office procedures."</li> </ol>	<p>Civil Engineering such as entry of quantity of executed works in the M.B, rate analysis, preparation of estimate and tender documents, drawing, survey, civil maintenance works, etc.</p> <ol style="list-style-type: none"> <li>2. Basic civil Engineering, civil Engineering drawing, quality and quantity measurement of building works earth works, road works, rate analysis, knowledge of working survey, preparation of tender document, maintenance of civil structures</li> </ol>
8	<b>Assistant Engineer (IT)</b>	<ol style="list-style-type: none"> <li>1. Digital Logic.</li> <li>2. Computer Organization and Architecture</li> <li>3. Programming and Data Structures.</li> <li>4. Algorithms.</li> <li>5. Theory of Computation.</li> <li>6. Compiler Design.</li> <li>7. Operating System.</li> <li>8. Databases.</li> <li>9. Computer Networks.</li> <li>10. General English, General Hindi, Quantitative Aptitude, Verbal and Non-Verbal Reasoning, General Studies &amp; Current Affairs.</li> <li>11. Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work, Internet, e-mail and various online tools used in day-to-day office work, central government rules, office procedures.</li> <li>12. Programming and Data structure, DBMS, Operating System, SMPS, Assembling and disassembling PCs, BIOS / CMOS Setup, Installation of Drivers and Software, CPU, Mother Board, RAM / ROM, Hard Disk Drive, Optical Drive, Keyboard, Mouse, Monitor, Printer, Scanner, Projector, Virus /Malwares, Networking, Internet, Web Technology, UPS.</li> <li>13. Trouble shootings of various systems / IT equipment / peripherals</li> </ol>	<ol style="list-style-type: none"> <li>1. Knowledge of Networking fundamentals, Routing, Switching, DNS, ADS, DHCP, IP etc.</li> <li>2. Knowledge of Installing, Configuring Windows Server and Linux Server.</li> <li>3. Knowledge of Database SQL Fundamentals, SQL Queries.</li> <li>4. Knowledge of Web Development (.Net, Java, PHP etc.) and Programming Languages (C, C++, C# etc.).</li> <li>5. Practical in computer hardware and software troubleshooting.</li> <li>6. Fundamentals of Computer, SMPS, Assembling and disassembling PCs, BIOS / CMOS Setup, Installation of Drivers and Software, CPU, Mother Board, RAM / ROM, Hard Disk Drive, Optical Drive, Keyboard, Mouse, Monitor, Printer, Scanner, Projector, Virus /Malwares, Networking, Internet, UPS.</li> </ol>



			7. Trouble shooting of all Equipment of Computer Laboratories. 8. MS-office (MS Word, MS PowerPoint, MS Excel).
9	<b>Supervisor (Electrical / Security)</b>	1. General English, General Hindi, Quantitative Aptitude, Verbal & Non-Verbal Reasoning. 2. General Studies & Current Affairs, 3. Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work, Internet, e-mail and various online tools used in day-to-day office work, central government rules, office procedures. 4. Domain knowledge about different labs such as Electrical Machines, Lab, Instrumentation Lab, Power System Lab, Control Systems Lab, Power Electronics Lab, Networks Lab etc, Basic Electrical Engineering, Electrical Circuits, Electrical Measuring Instruments, Electrical Machines. Trouble shootings of various systems / machines / equipment etc. as relevant for Job profile of the post	1. Domain practical knowledge about different labs such as Electrical Machines, Lab, Instrumentation Lab, Power System Lab, Control Systems Lab, Power Electronics Lab, Networks Lab etc. 2. Basic Electrical Engineering, Electrical Circuits, Electrical Measuring Instruments, Electrical Machines. 3. Trouble shootings of various systems / machines / equipment.
10	<b>Technical Assistant</b>	1. General English, General Hindi, Quantitative Aptitude, Verbal & Non-Verbal Reasoning. 2. General Studies & Current Affairs, 3. Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work, Internet, e-mail and various online tools used in day-to-day office work, central government rules, office procedures. 4. Domain knowledge about different labs such as Electrical Machines, Lab, Instrumentation Lab, Power System Lab, Control Systems Lab, Power Electronics Lab, Networks Lab etc, Basic Electrical Engineering, Electrical Circuits, Electrical Measuring Instruments, Electrical Machines. Trouble shootings of various systems / machines / equipment etc. as relevant for Job profile of the post	1. Domain practical knowledge about different labs such as Electrical Machines, Lab, Instrumentation Lab, Power System Lab, Control Systems Lab, Power Electronics Lab, Networks Lab etc. 2. Basic Electrical Engineering, Electrical Circuits, Electrical Measuring Instruments, Electrical Machines. 3. Trouble shootings of various systems / machines / equipment.

3. Any further updates shall be made available only on the Institute website. Candidates are advised to keep on checking the Institute's website for further updates.



  
Chief Administrative Officer

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2. Registrar, NID MP
3. Assistant Engineer (IT)- for uploading this notification on official website of NID MP for information of the applicants.
4. Office copy