

2. **Method of Recruitment :**

The method of Recruitment will be **Written Test followed by Skill Test.**

3. **Scheme of Examination**

The examination will be in two phases, Phase – I & Phase-II. Phase-I will be Written Test and Phase-II will be Skill Test (Practical). The details are as under:-

PHASE-I (WRITTEN TEST)

1.	Examination	Written Test
2.	Mode of Examination	ONLINE
3.	Duration of Examination	2 Hours
4.	Type of Examination	Subjective + Objective
5.	Maximum Marks	60 marks
6.	Minimum qualifying marks	30 out of 60

PHASE-II (SKILL TEST)

1.	Examination	Skill Test
2.	Mode of Examination	ONLINE
3.	Duration of Examination	2 Hours
4.	Type of Examination	Skill based (Practical)
5.	Maximum Marks	60 marks
6.	Minimum qualifying marks	30 out of 60

4. **SELECTION CRITERION**

Only those who qualify in the written test (minimum 50% marks) will be eligible for the Skill Test. The qualifying marks for Skill Test will also be 50% of the maximum marks. A merit list of such candidates will be prepared with the **sum total of the marks obtained by the candidate in both Written and Skill Test.**

5. **SYLLABUS**

(i) **Syllabus for Written Examination (Phase-I)**

S. No.	Topics	Total No. of Questions	Marks	Total marks
1.	A Brief History of Computers, Designing for Performance, Von Neumann Architecture, Hardware Architecture, Computer Components, Interconnection Structures, Bus Interconnection, Scalar Data Types, Fixed and Floating Point Numbers, Signed Numbers, Integer Arithmetic, 2's Complement Method for Multiplication, Booths Algorithm, Hardware Implementation, Division, Restoring and Non Restoring algorithms, Floating point	05	1 mark each	05

	representations, IEEE standards, Floating Point Arithmetic.			
2.	<p><u>Software Engineering</u></p> <p>Importance of Software Engineering Paradigms, Life Cycle Models-Waterfall Model, Prototyping Model, Spiral Model, RAD; Requirement Analysis, Design process, Software Project Planning, Cost Estimation, Software Quality Assurance, Software Testing</p>	05	1 mark each	05
3.	<p><u>Operating Systems</u></p> <p>Structure and Interface, Memory Management, Process Management, Interrupt Handling, Timing and Synchronization, Device Driver, File System, Virtual Machines, Windows and Linus OS</p>	05	1 mark each	05
4.	<p><u>Algorithms and Data Structures</u></p> <p>Order Notation, Recurrence, Counting and Probability, Elementary Data Structures such as lists, stacks, queues, binary search trees. Sorting Algorithms: External Sorting Branch & Bound Method Dynamic Programming</p>	10	1 mark each	10
5.	<p><u>Networks, Network Security and Web Security</u></p> <p>Overview of Networking LAN, VLAN, MAN, WAN, Internet and Intranet etc Server-Client based network, peer to peer networks, Network Hardware and Components, concept of Server, client, node, segment, backbone, host etc. Analog and Digital transmission, Functions of Network Interface Card (NIC), Repeaters, Hub, Switches, Routers, Bridges etc. Transmission Media and Topologies media types, Protocol and Services, OSI Model, Media Access Method, FTP, SMTP, HTTP, POP3, DNS, IMAP, MIME, WINS and RAS services, Web services , Proxy Services etc; Routing protocols, TCP/IP and Sub-nettings, TCP/IP Errors and Solutions, Network Management (SNMP, RMON, DHCP) Cryptography, Firewalls, Wireless and Mobile Data Services, Wireless Technology, Mobile Communications, Network Security, Public Key encryption, Hashing, Digital Signature, Web Security, System Security, Intruders, Malicious Software</p>	10	1 mark each	10

6.	<u>Programming</u> Static and Dynamic Web Pages, DHTML, CSS, Active Web Pages, Java Script, Servlet API, The servlet life cycle, Cookies and Sessions, JSP, CGI, ODBC, JDBC, Java,J2EE, PHP, Python, ASP.NET, LAMP,WAMP, XAMP	15	1 mark each	15
7.	<u>Search Engine Optimization</u> <ul style="list-style-type: none"> Improving the overall user experience of a site (making your content easy for users to find and engage with)-this will encourage repeat visits and links from other sites, all of which increase search engine ranking. Optimizing site architecture (the actual coding and design of a website) Mobile friendly design –since the majority of users now view websites on a phone or other mobile device (opens in a new tab), Google rewards sites that are designed to be as easily viewed on a small screen as they are on a desktop computer. 	05	1 mark each	05
8.	<u>Mobile Application Development (Android and iOS Mobile Platforms)</u> <ul style="list-style-type: none"> Android: Experience with Android SDK concepts, Android Studio etc. iOS: Knowledge of Swift 3.0 programming language, Apple’s Xcode IDE etc. 	05	1 mark each	05
9.	<u>Knowledge on Advanced Technologies like Blockchain, Artificial Intelligence</u>			

(ii) **Syllabus for Skill Test (Phase-II)**

S. No.	Topics	Total No. of Questions	Marks	Total marks
1.	Programming Skills like PHP, JAVA, Python, .NET, Android Application	02	10 marks each	20
2.	Database Design Skills like Hadoop, My SQL, Oracle	02	10 marks each	20
3.	Servers like Windows, Apache, Linux	02	10 marks each	20

Contd/-

6. Schedule of Examination

Schedule of examination will be intimated with the Admit Card. Detailed examination schedule will also be notified on Institute's website www.niepa.ac.in in due course. No candidate will be admitted for the Written Examination/Skill Test without proper Admit Card. Candidates will also be required to bring one valid ID Proof (in original) such as Voter ID Card/ AADHAR Card/Driving License/Passport/PAN Card along with the Admit Card. **Without identity proof, the candidates will not be allowed to appear for the examination under any circumstance.**

7. General Terms & Conditions

1. Only Indian Nationals are eligible to apply.
2. Candidates applying for the reserved post must ensure that they are entitled for such reservation as per the eligibility prescribed. They should also be in possession of the necessary caste certificate in support of their claim at the time of filling up of application form.
3. All educational, professional and technical qualification should be from a recognized Board/University.
4. Persons working in Govt./PSUs/Autonomous Bodies should apply through proper channel or produce a relevant 'No Objection Certificate' at the time of Written Test/Skill Test barring which their candidature will not be considered and will be treated as cancelled.
5. The candidates are required to satisfy themselves before applying that they possess the essential qualifications laid down for the post.
6. No modifications are allowed after candidate submits the online application form including category. If any discrepancies are found between the data filled by the candidate online and the original testimonials, his/her candidature is liable to be rejected. Hence, no request for change in any particulars of any candidate shall be entertained by the Institute at a later stage.
7. The prescribed essential qualifications are the minimum and the possession of the same does not entitle candidates to be called for Written/Skill Test.
8. In case, a large number of applications are received, screening will be done to limit the number of candidates to those possessing higher/relevant qualification and experience.
9. Closing date of Online Application will be the CRUCIAL DATE for determining the eligibility with regard to age, essential qualification etc.
10. Only shortlisted candidates will be called for Written Test/Skill Test.
11. All results/Notifications will be published on our website www.niepa.ac.in ([link:http://www.niepa.ac.in/recruitment%20per.aspx](http://www.niepa.ac.in/recruitment%20per.aspx)), therefore, the candidates are required to visit the Institute's website regularly till completion of recruitment process.
12. Incomplete online applications, in any respect shall be rejected and no further correspondence shall be entertained. In addition, no other means/mode of submission of application, except online, shall be accepted under any circumstances.
13. Candidates are advised not to attempt for registration more than once. In case of multiple Registrations, his/her most recent (current) registration/application will be considered as final.
14. Canvassing in any form will be a disqualification.
15. With regard to any provisions not covered in this Notification, the Government of India rules/regulations shall prevail.
16. Any modifications/amendments/corrigendum in respect of the above Notification shall be made available only on Institute's website. No further press advertisement will be published. Hence, prospective applicants are advised to visit Institute's website regularly for this purpose.
17. All correspondence/announcements with respect to above recruitment process shall be done through e-mail/notices on the Institute's website. Important information regarding recruitment will be available in Institute's website and as such, candidates are advised to visit the same frequently. The Institute will

not be responsible for any loss of e-mail sent, due to invalid/wrong e-mail ID provided by the candidate or due to any other reason. Candidate's e-mail ID and mobile number should remain valid till the recruitment process is over.

2. How to Apply:

Documents to be kept handy before filling up the online application. All the documents should be in pdf format.

- A soft copy of your passport size photo and signature (jpeg/jpg format only)
- Date of Birth certificate
- Matriculation certificate (equivalent to 10th Standard)/Mark Sheet
- Intermediate certificate (equivalent to 10th Standard)/Mark Sheet
- Any degree certificate (Graduation/Post Graduation)/Mark Sheet
- Experience Certificate, if any
- Forwarding Letter/NOC from the current employer in case of candidates working in Govt./PSUs/autonomous bodies.
- Caste Certificate in the format prescribed by the Government of India.

3. Procedure for filling up online application:

- The eligible and interested candidates may apply online at the Institute's website www.niepa.ac.in ⇒ **Jobs** ⇒ **Regular/Permanent Vacancies**. Applications through any other mode will not be accepted.

The following will be the step wise procedure:-

- Step-1 : Register on the web portal with your login/password and mobile number
- Step-2 : To fill up the details of the applicant in the application form
- Step-3 : To fill up the details related to educational qualification/ experience
- Step-4 : Uploading the documents related to educational qualification/experience/Forwarding Letter/No Objection Certificate (NOC)
- Step-5 : Uploading of photograph and signature
- Step-6 : Uploading of caste certificate
- Step-7 : Check the entries, confirm declaration and finally submit the application.

Note:

- (i) Candidates are required to keep a printout of the online application form for future reference.
- (ii) Incomplete applications shall be summarily rejected and no correspondence in this regard shall be entertained.
- (iii) In case of any difficulty in filling up the online form, please send an e-mail to recruitment1@niepa.ac.in alongwith the screenshot of the error displayed (if any)

“Government strives to have a work force which reflects gender balance and women candidates are encouraged to apply”