

EOI No: NIELIT/KOL/2022/O I

Date : 01/09/2022

Last Date : 31/08/2023

# **Skill Assessment and Certification by NIELIT Kolkata for Students trained by Institutes in West Bengal**

**Unit I:**

**Jadavpur University Campus,**

**Kolkata-700032.**

**Telephone (EPABX): (033)2414-6054/6081.**

**Fax:(033)2414-6549**

**Unit II:**

**SaltLake Campus, BF-267,**

**Sector-I, SaltLake,**

**Kolkata-700064.**

**Phone: +91(033)-46022246/46020938**



## Contents

|  |    |
|--|----|
| Introduction to NIELIT .....   | 2  |
| Introduction to NIELIT Kolkata .....   | 3  |
| Skill Assessment and Certification according to the skill of the student ..... | 4  |
| Responsibilities of Stake Holder-1 .....                                       | 5  |
| Responsibilities of Stake Holder-2 .....                                       | 5  |
| Infrastructure: .....  | 6  |
| Faculty Member quality: .....  | 6  |
| Quality of faculties would be according to the following .....                 | 6  |
| Electronics Oriented Courses: .....  | 6  |
| Lab Instructor: .....  | 6  |
| Table-1 (List of Courses) .....  | 7  |
| 1. Advance Diploma in Computer Application (250 hrs) .....                     | 8  |
| 2. Diploma in Computer Application (200 hrs) .....                             | 9  |
| 3. Diploma in Hardware and Networking (120 hrs) .....                          | 10 |
| 4. Certificate Course in Advance JAVA (80 hrs) .....                           | 10 |
| 5. Certificate Course in C Language (80 hrs) .....                             | 11 |
| 6. Certificate Course in C++ (80hrs) .....                                     | 11 |
| 7. Certificate Course in Auto-CAD (80 hrs) .....                               | 12 |
| 8. Certificate Course in Desktop Publishing (80 hrs) .....                     | 12 |
| 9. Certificate Course in Financial Accounting & GST using Tally (80 hrs) ..... | 12 |
| 10. Certificate Course in Oracle DBA (80 hrs) .....                            | 13 |
| 11. Certificate Course in Web Design (80 hrs) .....                            | 14 |
| 12. Certificate course in PHP and MySQL (80 hrs ) .....                        | 14 |
| 13. Certificate Course in Data Science using Python (80 Hrs) .....             | 15 |
| 14. Certificate Course in Office Tools (40 hrs) .....                          | 16 |
| 15. Certificate Course in Soft skill and Communicative English (40 hrs) .....  | 16 |
| 16. Certificate Course in Laptop, Printer & Desktop Repairing (40 hrs) .....   | 17 |
| 17. Certificate Course in CAD, Drafting and 3D Modeling (40 Hrs) .....         | 18 |
| 18. Certificate Course in Cyber Security (40 hrs) .....                        | 19 |
| Annexure –II .....   | 20 |
| APPLICATION FORM: .....  | 20 |
| DECLARATION: .....   | 21 |

*Signature* *Signature*



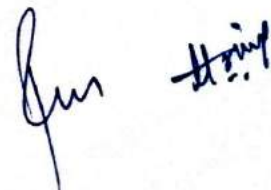
# Introduction to NIELIT

National Institute of Electronics & Information Technology (NIELIT), (erstwhile DOEACC Society), an Autonomous Scientific Society under the administrative control of Ministry of Electronics & Information Technology (MeitY), Government of India, was set up to carry out Human Resource Development and related activities in the area of Information, Electronics & Communications Technology (IECT). NIELIT is engaged both in Formal & Non-Formal Education in the area of IECT besides development of industry oriented quality education and training programmes in the state-of-the-art areas. NIELIT has endeavoured to establish standards to be the country's premier institution for Examination and Certification in the field of IECT. It is also one of the National Examination Body, which accredits institutes/organizations for conducting courses in IT in the non-formal sector.

As on date, NIELIT has forty seven (47) centers located at Agartala, Aizawl, Ajmer, Alawalpur (Saksharta Kendra), Aurangabad, Bhubaneswar, Calicut, Chandigarh, Chennai, Chuchuyimlang, Churachandpur, Daman, Delhi, Dibrugarh, Dimapur, Gangtok, Gorakhpur, Guwahati, Haridwar, Imphal, Itanagar, Jammu, Jorhat, Kargil, Kohima, Kolkata, Kokrajhar, Kurukshetra, Lakhanpur (Saksharta Kendra), Leh, Lucknow, Lunglei, Majuli, Mandi, Pasighat, Patna, Pali, Ranchi, Ropar, Senapati, Shillong, Shimla, Silchar, Srinagar, Tezpur, Tura and Tezu with its Headquarters at New Delhi. It is also well networked throughout India with the presence of about 700 + institutes.

Over the last two decades, NIELIT has acquired very good expertise in IT training, through its wide repertoire of courses, ranging from 'O' Level (Foundation), 'A' Level (Advance Diploma), 'B' Level (MCA equivalent), 'C' Level (M-Tech level), IT literacy courses such as CCC (Course on Computer Concept), BCC (Basic Computer Course) and other such long term and short term course in the non formal sector like courses on Information Security, ITeS-BPO(Customer Care/Banking), Computer Hardware Maintenance (CHM-O/A level), Bio-Informatics(BI-O/A/B level), ESDM etc. besides, high end courses offered by NIELIT Centres at Post-Graduate level (M.Tech) in Electronics Design & Technology, Embedded Systems etc. which are not normally offered by Universities/Institutions in the formal sector, in association with the respective state Universities.

The basket of activities of NIELIT is further augmented by the wide range of projects that it undertakes. NIELIT has demonstrated its capability and capacity to undertake R&D projects, consultancy services, turnkey projects in office automation, software development, website development etc. NIELIT is also the nodal implementing agency on behalf of MeitY for Data



Digitization of the population of 15 assigned States and 2 Union Territories for the creation of National Population Register (NPR) project of Registrar General of India (RGI).

NIELIT is also successfully executing the Agriculture Census and Input Survey project under which tabulation of about 10 crore data records have to be done. NIELIT has planned a roadmap for adopting appropriate pedagogy for metamorphosing NIELIT into an Institute of National Importance.

## **Introduction to NIELIT Kolkata**

NIELIT, Kolkata (formerly DOEACC Society Kolkata Centre since 14.12.2002 and prior to that Regional Computer Centre (RCC), Calcutta) is an Autonomous Scientific Society under the administrative control of Ministry of Electronics & Information Technology (MeitY), Government of India, and one of the oldest IT houses in eastern region imparting IT Education and Training for more than 30 years. The Centre was established in 1976 as a Registered Scientific Society (Autonomous Body) by the Central and West Bengal Governments.

In December 2002, Regional Computer Centre, Calcutta (RCC) was merged with DOEACC Society - An Autonomous Scientific Society of Department of Electronics & Information Technology under Ministry of Communications & Information Technology, Govt. of India.





# Skill Assessment and Certification according to the skill of the student

**Objective:** NIELIT Kolkata invites interested institutes to conduct Training in different Skill Development Courses as per information attached herewith. NIELIT Kolkata will maneuver the entire process through registration, evaluation and certification. The details of the roles and responsibilities of the stake holders are as follows:

- **Stakeholder1: NIELIT Kolkata**

Roles and responsibility-Registration, Evaluation and Certification

- **Stakeholder2:** NIELIT Accredited, NIELIT Affiliated, ESDM Training Partner, Weibel Training Partner, Common Service Centre (CSC), Training Partner of National Skill Development Corporation (N.S.D.C), Institutes having prior experience in imparting training in Govt. Organizations. Charitable Trusts/Organizations & Others who are involved in skill development activities are also eligible to apply.



## Responsibilities of Stake Holder-1

- **Registration:** Students will be registered by the institutes with NIELIT Kolkata as per guideline provided by the NIELIT Kolkata from time to time. For registration – appropriate Registration Fees + GST per course will be charged by NIELIT Kolkata.
- **Skill assessment process:** The Skill will be judged by NIELIT Kolkata through its own mechanism. Key skill will be evaluated through practical / viva examination. Practical will be a combination of different testing of the knowledge they have acquired while undergoing the training program. The assessment will also reflect the market demand so that a demand versus availability may be mapped. For Examination and Certification – appropriate Examination fees + GST per paper will be charged by NIELIT Kolkata.
- **Certification:** Certificates will be issued by NIELIT Kolkata to successful (passed) candidates only. In case if a candidate fails to clear the examination he can reappear by making the payment for each appearance.

## Responsibilities of Stake Holder-2

- **Mobilization, Registration and Admission of the students:** Concerned Institute/individual will mobilize and register students with NIELIT Kolkata as per guideline provided by the NIELIT Kolkata from time to time. Suitable training fees to be collected by the institutes from the candidates. For eligibility of the candidates and course fees in different courses refer Table 1.
- **Training Conduction:** The training will be provided by the identified/selected institutes for the courses specified by NIELIT Kolkata. Minimum no of candidates required for conducting examination is minimum 40 or as decided by NIELIT Kolkata from case to case basis for institutes located within 200 km and min 80 for institutes located above 200 km
- **Faculty Development program:** NIELIT Kolkata will assess the qualities of the faculties deployed or to be deployed with respect to the courses to be implemented. In case the faculties are not up to the required standards but can be groomed than they will be trained by NIELIT Kolkata as per convenience of both the stakeholders on chargeable basis.

## Infrastructure:

- **Hardware:**
  - a) Minimum 10 number of Computer Systems (for a batch size of minimum 20 and will increase proportionately) having latest configurations (Dual Core and above, Minimum of 1 GB RAM, 20 GB free Hard Disk space) or appropriate infrastructure as per the course being offered.
  - b) Internet Connectivity: 1Mbps line / Broadband
  - c) Projector: Minimum 1
  - d) Printer: Minimum 1 Printer
  - e) Scanner: At least 1
  - f) UPS Power supply– adequate as per system requirement
  - g) Webcam, Speaker
- **Software:**
  - a) Windows 7 or Above
  - b) Antivirus
  - c) Tally Package
  - d) AutoCAD Package
  - e) Multimedia Course related Software
  - f) Any other software related to the course

## Faculty Member quality:

Quality of faculties would be according to the following

- **Computer Oriented Courses:**
  - a) Faculty – Science Graduate with A Level cleared / B Level / MCA /B.E/ B.Tech / M.Sc in Computer Science / M.Sc with Diploma on Computer Courses or higher,
  - b) B.Com/M.Com candidates with experience in teaching Financial Accounting related Subject.
  - c) Relevant Experience/specialization in respective subject is required.

## Electronics Oriented Courses:

- a) Faculty - B.E / B.Tech / Diploma / ITI in Computer Science, Electrical or Electronics & communication, Instrumentation for Hardware Course.
- b) Relevant Experience/specialization in respective subject is required.

## Lab Instructor:

- a) Graduation/Diploma in Computer Science, Electrical or Electronics & communication, Instrumentation or higher with relevant experience.



## Table-1 (List of Courses)

| Sl | Course Name  | Course duration in hrs | Month wise duration* | Min Eligibility (appearing / appeared) | Registration Fees without GST | Examination Fees without GST |
|----|--|------------------------|----------------------|--|-------------------------------|------------------------------|
| 1  | Advance Diploma in Computer Applications                       | 250                    | 6-10                 | Graduation                             | 1000                          | 1000                         |
| 2  | Diploma in Computer Application                                | 200                    | 4-6                  | XII                                    | 600                           | 600                          |
| 3  | Diploma Hardware and Networking.                               | 120                    | 3-4                  | XII/10 +ITI                            | 600                           | 600                          |
| 4  | Certificate Course in Advance JAVA                             | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 5  | Certificate Course in "C" Language                             | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 6  | Certificate Course in C++                                      | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 7  | Certificate Course in Auto-CAD                                 | 80                     | 2-3                  | ITI/<br>Polytechnic/HS/<br>BE/ B.Tech  | 600                           | 600                          |
| 8  | Certificate Course in Desktop Publishing                       | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 9  | Certificate Course in Financial Accounting and GST using Tally | 80                     | 2-3                  | XII (preferably Commerce)              | 600                           | 600                          |
| 10 | Certificate Course in Oracle DBA                               | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 11 | Certificate Course in Website Designing                        | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 12 | Certificate course in PHP and MySQL                            | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 13 | Basic Data Science using Python                                | 80                     | 2-3                  | XII                                    | 600                           | 600                          |
| 14 | Certificate Course in Office Tools                             | 40                     | 1-2                  | VIII                                   | 375                           | 375                          |
| 15 | Certificate Course in Soft Skill and Communicative English     | 40                     | 1-2                  | X                                      | 375                           | 375                          |
| 16 | Certificate Course in Laptop, Printer & Desktop Repairing      | 40                     | 1-2                  | X                                      | 375                           | 375                          |
| 17 | Certificate Course in CAD, Drafting and 3D Modeling            | 40                     | 1-2                  | ITI/<br>Polytechnic<br>/BE/B. Tech     | 375                           | 375                          |
| 18 | Information Security and Tools                                 | 40                     | 1-2                  | XII                                    | 375                           | 375                          |

**\*Month wise duration Table**

| Sl No | Hours          | Proposed Duration in Months |
|-------|----------------|-----------------------------|
| 01    | <=40 HRS       | 1-2                         |
| 02    | >40 and <=80   | 2-4                         |
| 03    | >80 and <=200  | 4-6                         |
| 04    | >200 and <=300 | 6-8                         |

**Gradation Table**

| Sl No | Marks       | Grade |
|-------|-------------|-------|
| 01    | 100% to 90% | A+    |
| 02    | 89% to 80%  | A     |
| 03    | 79% to 70%  | B+    |
| 04    | 69% to 60%  | B     |



|    |            |      |
|----|------------|------|
| 05 | 59% to 50% | C+   |
| 06 | 49% to 40% | C    |
| 07 | Below 40%  | Fail |

### 1. Advance Diploma in Computer Application (250 hrs)

| S. No | Topic   | Minimum No. of Hours |
|-------|---|----------------------|
| 1     | Introduction to Computer<br>Computer and Latest IT gadgets, Evolution of Computers & its applications, IT gadgets and their applications, Basics of Hardware and Software, Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Application Software, Systems Software, Utility Software, Open source and Proprietary Software  | 4                    |
| 2     | Introduction to Operating System<br>Operating System, Basics of Operating System, Operating Systems for Desktop and Laptop, User Interface for Desktop and Laptop, Task Bar, Icons & shortcuts, running an application, Operating System simple setting, using mouse and changing its properties, changing system date and time, changing display properties, to add or remove Program and its features, adding, removing & sharing Printers, File and Folder management, types of file extensions.   | 6                    |
| 3     | Information Technology and Office Tools-<br>Introduction to Computer; Introduction to Operating System; Word Processing; Spreadsheet; Presentation; Introduction to Network, Internet and WWW; E-mail, Social Networking and e-Governance Services; Digital Financial Tools and Applications.   | 50                   |
| 4     | An Overview of the Database Management System: What is database?, Why database?, database system, database management system (DBMS), advantages of DBMS.<br>An Architecture of the Database system: Three levels of architecture, mappings, role of Database Administrator (DBA), E-R model, three approaches of DBMS- relational, hierarchical and network.<br>Relational Database Management System (RDBMS): Introduction, RDBMS terminology, relational model, base tables, keys.<br>Normalization: Normal forms, Boyce-Codd Normal form, higher normal forms.<br>The SQL Language: Introduction, Characteristics of SQL, data definition, data manipulation, SQL commands, SQL operators, Queries, aggregate functions.<br>Backup and Recovery: Transaction recovery, system recovery, SQL support. | 40                   |
| 5     | HTML Programming Basics:<br>Introduction, Basic Structure of HTML, Head Section, Formatting Tags: Bold, Italic, Underline, Strikethrough, Anchor links and Named Anchors<br>Image Tag, Paragraphs, Tables: Attributes -(Border, Cellpadding, Cellspacing, height, width), TR, TH, TD, Rowspan, Colspan Lists : Ordered List, Unordered List, Forms, Form Elements, Input types, Input Attributes, Text Input Text Area, Dropdown, Radio buttons, Check boxes, Submit and Reset Buttons Frames: Frameset, nested Frames.<br>CSS:<br>Introduction to CSS, Types of CSS, CSS Properties: Back Ground properties, Block Properties, Box properties, List properties, Border Properties, Positioning Properties, CSS Lists CSS Tables, CSS Menu Design CSS Image Gallery.                                    | 50                   |

*for* *History*

|                                   |   |     |
|-----------------------------------|---|-----|
|                                   | JavaScript:<br>Introduction to Scripting Language, Variables in Java Script, Operators in JS, Conditions Statements, JS Popup Boxes, JS Events, Basic Form Validations in JavaScript.<br>Photo Editor: Basic photo editing using Photo editor software. |     |
| 6                                 | Problem solving and programming on Python –<br>Introduction to Python, Operators, Expressions and Python Statements, Sequence Data Types, Functions, File Processing, Scope and Modules, NumPy Basics.  | 40  |
| 7                                 | Internet of Things and its Applications (IOT)<br>Introduction to Internet of Things – Applications/Devices, Protocols and Communication Model, Sensors, Actuators and Microcontrollers  | 40  |
| 8                                 | Project   | 20  |
| Theory / Lecture Hours:           |   | 100 |
| Practical/Tutorial/Lecture Hours: |   | 150 |
| Total Hours:                      |   | 250 |

## 2. Diploma in Computer Application (200 hrs)

| S. No | Topic   | Minimum No. of Hours |
|-------|---|----------------------|
| 1     | Information Technology and Office Tools-<br>Introduction to Computer; Introduction to Operating System; Word Processing; Spreadsheet; Presentation; Introduction to Network, Internet and WWW; E-mail, Social Networking and e-Governance Services; Digital Financial Tools and Applications.   | 50                   |
| 2     | Problem solving and programming on Python –<br>Introduction to Python, Operators, Expressions and Python Statements, Sequence Data Types, Functions, File Processing, Scope and Modules, NumPy Basics.  | 40                   |
| 3     | An Overview of the Database Management System: What is database?, Why database?, database system, database management system (DBMS), advantages of DBMS.<br>An Architecture of the Database system: Three levels of architecture, mappings, role of Database Administrator (DBA), E-R model, three approaches of DBMS- relational, hierarchical and network.<br>Relational Database Management System (RDBMS): Introduction, RDBMS terminology, relational model, base tables, keys.<br>Normalization: Normal forms, Boyce-Codd Normal form, higher normal forms.<br>The SQL Language: Introduction, Characteristics of SQL, data definition, data manipulation, SQL commands, SQL operators, Queries, aggregate functions.<br>Backup and Recovery: Transaction recovery, system recovery, SQL support. | 40                   |
| 4     | HTML Programming Basics: Introduction, Basic Structure of HTML, Head Section, Formatting Tags: Bold, Italic, Underline, Strikethrough, Anchor links and Named Anchors Image Tag, Paragraphs, Tables: Attributes –(Border, Cellpadding, Cellspacing, height, width), TR, TH, TD, Rowspan, Colspan Lists : Ordered List, Unordered List, Forms, Form Elements, Input types, Input Attributes, Text Input Text Area, Dropdown, Radio buttons, Check boxes, Submit and Reset Buttons  | 50                   |

*for King*



|                                   |   |     |
|-----------------------------------|---|-----|
|                                   | Dropdown, Radio buttons , Check boxes, Submit and Reset Buttons<br>Frames: Frameset, nested Frames.<br>CSS: Introduction to CSS, Types of CSS, CSS Properties: Back Ground properties, Block Properties, Box properties, List properties, Border Properties, Positioning Properties, CSS Lists CSS Tables, CSS Menu Design CSS Image Gallery.<br>JavaScript: Introduction to Scripting Language, Variables in Java Script, Operators in JS, Conditions Statements, JS Popup Boxes, JS Events, Basic Form Validations in JavaScript.<br>Photo Editor: Basic photo editing using Photo editor software. |     |
| 5                                 | Project   | 20  |
| Theory / Lecture Hours:           |   | 100 |
| Practical/Tutorial/Lecture Hours: |   | 100 |
| Total Hours:                      |   | 200 |

### 3. Diploma in Hardware and Networking (120 hrs)

| S. No                             | Topic                             | Minimum No. of Hours |
|-----------------------------------|-----------------------------------|----------------------|
| 1                                 | Power Supply                      | 6                    |
| 2                                 | Motherboards                      | 10                   |
| 3                                 | Primary & Secondary Memories      | 10                   |
| 4                                 | Buses and IO Ports                | 10                   |
| 5                                 | Computer Peripherals              | 10                   |
| 6                                 | Display units                     | 6                    |
| 7                                 | Establishing LAN Connection       | 20                   |
| 8                                 | Bluetooth and Wireless Networking | 6                    |
| 9                                 | Booting and POST test             | 6                    |
| 10                                | Virus removal and protection      | 6                    |
| Theory/ Lecture Hours:            |                                   | 20                   |
| Practical/Tutorial/Lecture Hours: |                                   | 70                   |
| Total Hours:                      |                                   | 90                   |

### 4. Certificate Course in Advance JAVA (80 hrs)

| S.No | Topic                            | Minimum No. of Hours |
|------|----------------------------------|----------------------|
| 1    | Introduction to Core Java        | 10                   |
| 2    | Introduction to J2EE             | 06                   |
| 3    | SQL & JDBC                       | 20                   |
| 4    | Beans in Servlets                | 14                   |
| 5    | Introduction to struts framework | 10                   |
| 6    | JSP                              | 10                   |

|                                   |             |    |
|-----------------------------------|-------------|----|
| 7                                 | Hibernation | 10 |
| Theory/ Lecture Hours:            |             | 30 |
| Practical/Tutorial/Lecture Hours: |             | 50 |
| Total Hours:                      |             | 80 |

### 5. Certificate Course in C Language (80 hrs)

| S.No                              | Topic                           | Minimum No. of Hours |
|-----------------------------------|---------------------------------|----------------------|
| 1                                 | Introduction to C               | 02                   |
| 2                                 | Data types & operator           | 06                   |
| 3                                 | Logical & looping constructs    | 15                   |
| 4                                 | Functions                       | 06                   |
| 5                                 | Arrays & Pointers               | 25                   |
| 6                                 | Structures & union              | 10                   |
| 7                                 | Standard library & header files | 06                   |
| 8                                 | File Handling Operations        | 10                   |
| Theory/ Lecture Hours:            |                                 | 30                   |
| Practical/Tutorial/Lecture Hours: |                                 | 50                   |
| Total Hours:                      |                                 | 80                   |

### 6. Certificate Course in C++ (80 hrs)

| S.No                              | Topic                                  | Minimum No. of Hours |
|-----------------------------------|--|----------------------|
| 1                                 | Introduction to OOP's concept          | 02                   |
| 2                                 | Data types. Operator & Logical/looping | 05                   |
| 3                                 | Functions and arrays                   | 15                   |
| 4                                 | Classes & objects                      | 10                   |
| 5                                 | Inheritance                            | 10                   |
| 6                                 | Polymorphism                           | 10                   |
| 7                                 | Operator overloading                   | 05                   |
| 8                                 | Function overloading                   | 05                   |
| 9                                 | Exception handling                     | 05                   |
| 10                                | File Handling Operations               | 08                   |
| 11                                | Introduction to Template               | 05                   |
| Theory/ Lecture Hours:            |  | 30                   |
| Practical/Tutorial/Lecture Hours: |  | 50                   |
| Total Hours:                      |  | 80                   |

*for* *Hand*



### 7. Certificate Course in Auto-CAD (80 hrs)

| S.No                              | Topic  | Minimum No. of Hours |
|-----------------------------------|--|----------------------|
| 1                                 | Introduction, GUI, Coordinate, Limit, Grip, Grid, Snap | 10                   |
| 2                                 | Drawing, Viewing, modify, editing commands             | 20                   |
| 3                                 | Plot, Linetype, Model Space Paper Space, 2D Isometric  | 10                   |
| 4                                 | 3D drawing, Modeling                                   | 40                   |
| Theory/ Lecture Hours:            |  | 20                   |
| Practical/Tutorial/Lecture Hours: |  | 60                   |
| Total Hours:                      |  | 80                   |

### 8. Certificate Course in Desktop Publishing (80 hrs)

| S. No                             | Topic        | Minimum No. of Hours |
|-----------------------------------|--------------|----------------------|
| 1.                                | MS paint     | 10                   |
| 2.                                | Photoshop    | 24                   |
| 3.                                | Page maker   | 12                   |
| 4.                                | Coral draw   | 24                   |
| 5.                                | Project work | 10                   |
| Theory/Lecture Hours:             |              | 20                   |
| Practical/Tutorial/Lecture Hours: |              | 60                   |
| Total Hours:                      |              | 80                   |

### 9. Certificate Course in Financial Accounting & GST using Tally (80 hrs)

| S. No | Topic   | Minimum No. of Hours |
|-------|---|----------------------|
| 1     | Advance Financial Accounting:-<br>Financial Accounting (Definition, Concept, Process Voucher, Journal & Ledger, Double Entry System).<br>Classification of A/Cs (Personal, Real & Nominal) and Golden Rules of Accounting. Capital & Revenue Expenditure, Depreciation.<br>Reports (Trial Balance, Statement of Profit & Loss/ Receipts & Payments and Balance Sheet.<br>Day Books (Purchase & Sale), Cash/ Bank Book, A/Cs Receivable & Payable, Debit Note, Credit Note, Bank Reconciliation.                     | 04                   |
| 2     | Tally ERP 9:-<br>Accounting Software (ERP/SAP, Self developed software used by organizations, Tally ERP9, etc.).<br>Tally – Introduction, System Requirement, Main Features, Company Creation, Group Creation, Ledger Creation, Voucher entry, View Reports-Theory & Practical.<br>Receipts & Payments Voucher, Purchase (inward supply) Voucher/ Register & Sales (outward supply) Voucher/ Register, Journal Voucher/ Register, Bill adjustment method & Outstanding statement, Credit period-Theory & Practical. | 16                   |

|  |  |           |
|--|--|-----------|
|  | Opening Balance & Opening Balance Sheet, Creation of Admin and Non-admin users, Password Policy – Theory & Practical.<br>Concept of Financial & Assessment year, IT Act & Rules.   | 02        |
| 3  | TDS/ TCS under Income Tax Act & GST (Concept, Payments, Returns/ e-filing (Theory & Practical using Tally ERP 9)   | 04        |
| 4  | GST (Concept, Act/ Rules, over view) CGST, SGST, IGST, UTGST, Composition Tax, Reverse Charge Mechanism ITC, Registration, Tax Payments, Returns, Hands-on Training.   | 16        |
| 5  | Costing using Tally(Theory & Practical):-<br>Concept of Cost Centre, Cost Unit & Cost Category<br>Budget & Budgetary Control, Standard Costing & Variance Analysis, Job & Contract Costing<br>Data Import & Export, Change Company, Backup, Restore, Yearending etc. | 06        |
| 6  | Sales Invoice & Inventory using Tally:-<br>Sales Invoice with singly/ multiple items, POS Billing, Stock Summary, Stock Category creation and Stock Transfer, Godown Creation, ABC analysis, Stock Journal, Physical Verification of Stock, Manufacturing Inventory. | 10        |
| 7  | Payroll (PF, ESI, P.Tax, Income Tax, Bonus, Gratuity, Leave Encashment and Components of salary & allowances).   | 04        |
| 8  | Ratio Analysis(Theory & Practical)   | 02        |
| 9  | Revision of Tally Package  | 08        |
| 10                                       | Revision of GST  | 04        |
| 11                                       | How to appear interview in different organization as Accounts Professional   | 02        |
| 12                                       | Interactive Session & Certification distribution   | 02        |
| <b>Theory/ Lecture Hours:</b>            |  | <b>50</b> |
| <b>Practical/Tutorial/Lecture Hours:</b> |  | <b>30</b> |
| <b>Total Hours:</b>                      |  | <b>80</b> |

### 10. Certificate Course in Oracle DBA (80 hrs)

| S. No | Topic                             | Minimum No. of Hours |
|-------|-----------------------------------|----------------------|
| 1.    | Oracle architecture               | 02                   |
| 2.    | Database administration tools     | 03                   |
| 3.    | Oracle instance                   | 03                   |
| 4.    | Creating a database               | 02                   |
| 5.    | Data dictionary & views           | 02                   |
| 6.    | Control files                     | 02                   |
| 7.    | Log files                         | 02                   |
| 8.    | Table space                       | 03                   |
| 9.    | Storage, structure & relationship | 04                   |
| 10.   | Managing undo data                | 04                   |
| 11.   | Managing tables & index           | 02                   |

*for printing*



|                                   |                                       |    |
|-----------------------------------|---------------------------------------|----|
| 12.                               | Maintaining data integrity            | 02 |
| 13.                               | Managing password security &resources | 03 |
| 14.                               | Users &privileges                     | 03 |
| 15.                               | Managing rules                        | 02 |
| 16.                               | Auditing &loading data                | 01 |
| Theory/ Lecture Hours:            |                                       | 30 |
| Practical/Tutorial/Lecture Hours: |                                       | 60 |
| Total Hours:                      |                                       | 80 |

### 11. Certificate Course in Web Design (80 hrs)

| 5. No                                 | Topic                         | Minimum No. of Hours |
|---------------------------------------|-------------------------------|----------------------|
| 1.                                    | Introduction to Internet &Web | 4                    |
| 2.                                    | HTML                          | 20                   |
| 3.                                    | JavaScript                    | 20                   |
| 4.                                    | CSS                           | 20                   |
| 5.                                    | jQuery                        | 10                   |
| 6.                                    | BootStrap                     | 10                   |
| Theory / Lecture Hours:               |                               | 20                   |
| Practical / Tutorial / Lecture Hours: |                               | 60                   |
| Total Hours:                          |                               | 80                   |

### 12. Certificate course in PHP and MySQL (80 hrs )

| SI No | Topics   | Minimum No. of Hours |
|-------|--|----------------------|
| 1     | What is a Scripting Language? Programming Language Vs Scripting Language, What does PHP stand for? Why use PHP? PHP File Extensions.   | 2                    |
| 2     | How to Download & Install XAMPP & Net Beans: PHP Tutorial<br>What is XAMPP? Why use XAMPP? How to Download and Install XAMPP Basic Web server configuration XAMPP Control Panel<br>ConfigureXAMPP What is the PHPIDE? Introduction to Netbeans IDE | 4                    |
| 3     | Introduction to PHP : Evaluation of PhpBasic Syntax<br>Defining variable and constantPhp Data type<br>Operator and Expression  | 6                    |
| 4     | Handling Html Form With Php Capturing Form Data Dealing with Multi-value filed<br>Generating File uploaded form Redirecting a form after submission  | 6                    |

*for* *thou*

|                                       |  |    |
|---------------------------------------|--|----|
| 5                                     | DECISIONS AND LOOP Making<br>Decisions Doing Repetitive task with looping Mixing<br>Decisions and loopingwith Html PHP If...Else...Elseif<br>PHP Switch<br>PHP While LoopsPHP For Loops  | 6  |
| 6                                     | FUNCTION What is a function Define a<br>function<br>Call by value and Call by reference Recursive<br>function  | 8  |
| 7                                     | STRING Creating and accessing String Searching &<br>Replacing String Formatting String<br>String Related Library function  | 4  |
| 8                                     | ARRAY Anatomy of an Array<br>Creating index based and Associative array Accessing array<br>Element<br>Looping with Index base darray<br>Looping with associative array using each() and foreach()Some<br>useful Library function | 6  |
| 9                                     | Working with File and Directories: Understanding<br>File & directory<br>Opening and closing a file<br>Coping, renaming and deleting a file Working with<br>directories<br>File Uploading & Downloading                           | 10 |
| 10                                    | STATE MANAGEMENT Using query string(URL rewriting)<br>Using Hidden field Using cookiesUsing session  | 6  |
| 11                                    | String matching with regular expression :What is regularexpression<br>Pattern matching in Php Replacing text<br>Splitting a string with a Regular Expression   | 6  |
| 12                                    | Database Connectivity with MySql: Introduction toRDBMS<br>Connection with MySql Database Performing basic database<br>operation(DML) (Insert, Delete, Update, Select)<br>Setting query parameterExecuting query                  | 16 |
| Theory / Lecture Hours:               |  | 20 |
| Practical / Tutorial / Lecture Hours: |  | 60 |
| Total Hours:                          |  | 80 |

### 13. Certificate Course in Data Science using Python (80 Hrs)

| S. No | Topic | Minimum No. of Hours |
|-------|-------|----------------------|
|-------|-------|----------------------|

*for string*



|  |   |           |
|--|---|-----------|
| 1  | Introduction to Data Science: Introduction, Types of Data, Data collection and pre-processing methods   | 10        |
| 2  | Basics of Python/R, Data visualization: Introduction to Python, Data Structures in Python, Control Structures and functions, Classes and Objects, Introduction to NumPy, NumPy Arrays, Introduction to Panda, Matplotlib, Data visualisation using Panda, Matplotlib.                       | 20        |
| 3  | Statistics Fundamental: Descriptive & Inferential Statistics, Probability Concept: Marginal, Joint & Conditional Probability, Bayes Theorem, Probability Distributions, Entropy & Information Gain, Regression & Correlation, Confusion Matrix, Bias & Variance, Covariance and correlation | 10        |
| 4  | Machine learning using Python: Applications of Machine Learning, Supervised and Unsupervised Learning, Regression and Classification, Introduction to Clustering, Python Libraries used for Machine Learning, Intuition using Python  | 20        |
| 5  | Case study using Machine learning concepts: Pre-processing, data analysis and modelling, model evaluation and deployment of model.  | 20        |
| <b>Practical/Tutorial/Lecture Hours:</b> |   | <b>30</b> |
| <b>Total Hours:</b>                      |   | <b>50</b> |

#### 14. Certificate Course in Office Tools (40 hrs)

| S. No                                    | Topic                                 | Minimum No. of Hours |
|--|---------------------------------------|----------------------|
| 1  | Knowing Computer                      | 02                   |
| 2  | Operating Computer using GUI based OS | 04                   |
| 3  | Word Processing                       | 12                   |
| 4  | Spread Sheet                          | 12                   |
| 5  | Communicating using the Internet      | 02                   |
| 6  | WWW & Web Browsers                    | 02                   |
| 7  | Communication & Collaboration         | 04                   |
| 8  | Making Small Presentation             | 02                   |
| <b>Theory/ Lecture Hours:</b>            |                                       | <b>20</b>            |
| <b>Practical/Tutorial/Lecture Hours:</b> |                                       | <b>20</b>            |
| <b>Total Hours:</b>                      |                                       | <b>40</b>            |

#### 15. Certificate Course in Soft skill and Communicative English (40 hrs)

| S.No | Topic   | Minimum No. of Hours |
|------|---|----------------------|
| 1    | Brief introduction to: Spoken variety of English, the two chief spoken varieties-British and American; Indian English and idea of a neutral accent. | 03                   |
| 2    | Consonant sounds, Vowel sounds in English: Pure vowels (Long vowels and short vowels) Phonetic Symbols,   | 03                   |
| 3    | Refresher classes on English Grammar and Vocabulary   | 03                   |
| 4    | Connected Speech: Word stress and sentence stress   | 04                   |

|                     |   |           |
|---------------------|---|-----------|
| 5                   | Reading from texts, computer aided teaching and learning exercises        | 02        |
| 6                   | Entry behavior evaluation, Introductory Module on Personality Development | 03        |
| 7                   | Presentation and speech giving techniques                                 | 01        |
| 8                   | Module on Office Etiquette  | 01        |
| 9                   | Module on Customer Care   | 02        |
| 10                  | Telephone handling Techniques   | 02        |
| 11                  | Module on Active Listening  | 01        |
| 12                  | Module on Product features and benefits                                   | 01        |
| 13                  | Module on call structure  | 01        |
| 14                  | Module on objection handling and questioning Techniques                   | 01        |
| 15                  | Power point Presentation  | 01        |
| 16                  | Module on Telemarketing and Prospecting                                   | 01        |
| 17                  | Module on Complain handling and handling of difficult people              | 01        |
| 18                  | Group Discussion  | 01        |
| 19                  | Lesson on 'How to Face Interview', Body Language,                         | 04        |
| 20                  | Debating Competition  | 01        |
| 21                  | Conduction of role-plays  | 01        |
| 22                  | Conducting Mock interviews  | 01        |
| 23                  | Interactive sessions  | 01        |
| <b>Total Hours:</b> |   | <b>40</b> |

#### 16. Certificate Course in Laptop, Printer & Desktop Repairing (40 hrs)

| S. No               | Topic   | Minimum No. of Hours |
|---------------------|---|----------------------|
| 1                   | Introduction and Assembling of Desktop Computer   | 6                    |
| 2                   | Introduction to Operating System , Window XP, 7, 8, 10 Installation & UBUNTU Installation | 7                    |
| 3                   | Application Software & Driver installation  | 3                    |
| 4                   | Identification of different Parts & Basic repairing and troubleshooting of Laptop         | 10                   |
| 5                   | Toner refilling, Installation, Repair & Basic Troubleshooting of Printer                  | 10                   |
| 6                   | CCTV Installation   | 4                    |
| <b>Total Hours:</b> |   | <b>40</b>            |

*Signature*



### 17. Certificate Course in CAD, Drafting and 3D Modeling (40 Hrs)

| S. No                                 | Topic  | Minimum No. of Hours |
|---------------------------------------|--|----------------------|
| 1                                     | Limits ,units ,Line , O-snap , Polygon , Arc , Circle , Ellipse , Rectangle , Array , Move , Copy .                  | 02 hrs               |
| 2                                     | Rotate , Offset ,Revision cloud , Trim , Stretch , Break , Joint , Selection Method                                  | 02 hrs               |
| 3                                     | Mirror , Solid , Scale , Extend , Explode , Fillet , Chamfer ,Donut , Layer , Match Properties , Text , Multi Text . | 02 hrs               |
| 4                                     | Block , Insert , Dynamic Block , W Block , Attribute , External Reference , Hatch ,Gradient .                        | 02 hrs               |
| 5                                     | Table , Align , Boundary , Divide , Measure , Point , Region , Polyline .  | 02 hrs               |
| 6                                     | Layout Management , Plotting ,Dimension , Properties , Match Properties ,Edit , Edit with grips .                    | 02 hrs               |
| 7                                     | Polyline , Lengthen , spline   | 02 hrs               |
| 8                                     | Project of a 2D Drawing  | 02 hrs               |
| 9                                     | Draft setting, Isolate, Different shape in Isometric   | 02 hrs               |
| 10                                    | Project drawing of anisometric model.  | 02 hrs               |
| 11                                    | 3D Box , cylinder , Cone , Pyramid , Torus , Extrude , UCS setting , Region , Subtract                               | 02 hrs               |
| 12                                    | Loft, loft reference to guide curve, Sweep, Revolve, Union, Intersect, Polysulfide.                                  | 02 hrs               |
| 13                                    | Planar, surface, Press/ Pull, Slice, Thicken, Smooth object, Extract Face, Imprint.                                  | 02 hrs               |
| 14                                    | Extrude face, Taper face, Move Face, Copy Face, Color Face, Shell.   | 02 hrs               |
| 15                                    | Helix, Align, Array, Marrow, Fillet, Chamfer, Move Gizmo.  | 02 hrs               |
| 16                                    | Mesh revolves, Mesh edge, Surface, Ruled surface, Tabulate Surface.  | 02 hrs               |
| 17                                    | Convert to solid or surface, material input, Render, Sky off-on, Walk Through.                                       | 02 hrs               |
| 18                                    | Project  | 02 hrs               |
| 19                                    | Project  | 02 hrs               |
| 20                                    | Project  | 02 hrs               |
| Theory / Lecture Hours:               |  | 10                   |
| Practical / Tutorial / Lecture Hours: |  | 30                   |
| Total Hours:                          |  | 40 hrs               |

*[Handwritten signatures]*

### 18. Certificate Course in Cyber Security (40 hrs)

| S. No               | Topic  | Minimum No. of Hours |
|---------------------|--|----------------------|
| 1                   | Network basics, IPV4, Class, Classless, CIDR, IPV6, Basics of routing and switching, NAT   | 6                    |
| 2                   | Basic Linux Commands   | 2                    |
| 3                   | Need of Cyber security, Ethical Hacking, Scope of Ethical Hacking, Types of Hackers, Phases of Ethical Hacking   | 4                    |
| 4                   | Cryptography(Symmetric, Asymmetric), PKI with PGP  | 4                    |
| 5                   | Security Attacks and counter measures: information Gathering, sniffing, scanning   | 6                    |
| 6                   | ARP Cache Poisoning and MITM Attack, Brute Force attack, IP spoofing & MAC spoofing, DOS attack  | 6                    |
| 7                   | Metasploit Framework<br>Exploit MS17-010 Vulnerability<br>Reverse TCP Connection<br>Reverse connection in different network using port forwarding<br>Software-based vulnerabilities (Badblue/iceblaster) | 6                    |
| 8                   | Steganography, Web security vulnerability  | 2                    |
| 9                   | Cyber law And forensic: Digital Forensic   |                      |
| <b>Total Hours:</b> |  | <b>40</b>            |

*[Handwritten signatures]*



## Annexure –II

### APPLICATION FORM

|    |   |   |
|----|---|---|
| 1  | Training Center name  |   |
| 2  | Training Center Location  | District:<br>City/Village:<br>Address:<br>Contact Person Mobile No: |
| 3  | Full details of Centre In Charge<br>a) Name<br>b) Centre Address<br>c) Telephone No.<br>d) Mobile No.<br>e) E-Mail:<br>f) Fax No.<br>g) NIELIT Accreditation No:<br>/ESDM TP ID:<br>/NIELIT Facilitation No:<br>/WIL Registration No:<br>/CSC Number: |   |
| 4  | Complete Address of the Centre with brief description of location   |   |
| 5  | Experience in conducting NIELIT Courses (Mention the Course names etc.)   |   |
| 6  | List of course to be applied for  | Attach separate sheet for multiple courses                          |
| 7  | Hardware Availability   | Attach details  |
| 8  | Software Availability   | Attach details  |
| 9  | Faculty Profile   | Attach details  |
| 10 | Experience in Education & Training activities   | Attach details  |

*[Signature]*

## DECLARATION:

- i. I, ..... Son / daughter / wife of ..... have read and understood the GUIDELINES / INSTRUCTIONS FOR CONDUCTING THE COURSE and agree to abide by the same.
- ii. I certify that I am the competent authority, by virtue of the administrative and financial powers vested in me by ..... to furnish the above information and to undertake the above stated commitment on behalf of the organization referred to in col.1 above.
- iii. I am aware that in case any information given by me is found false or misleading my organization would be debarred from the conduction of the course besides being subjected to any other action that may be deemed fit by NIELIT, Kolkata.
- iv. The details furnished with regard to faculty and infrastructure is correct to the best of my knowledge and belief and we will ensure availability of these facilities on a continued basis till we continue to offer candidates the courses applied for.
- v. I agree to abide by the decisions of the NIELIT, Kolkata or its designated agencies in respect of my application for permission to offer candidates for the courses.
- vi. I agree to all terms & conditions mentioned in the EOI Ref no:  
\_\_\_\_\_

### Signature of the Witness:

Name:  
Designation:  
Date:  
Address:  
Seal of the organization

### Signature of the Authorized Signatory:

Name:  
Designation:  
Date:  
Address:  
Seal of the organization

*[Handwritten signature]*