CORRIGENDUM

EOI No: NIELIT/KOL/2026-27/1
Date : 17/04/2026
Last Date : 31/03/2027

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

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 endeavourer 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 fifty five (55) centers located in major cities such as Agartala, Aizawl, Ajmer, Aurangabad, Balasore, Bhubaneswar, Bikaner, Buxar, Calicut, Chandigarh, Chennai, Chuchuyimlang, Churachandpur, Daman, Delhi, East Delhi, South West Delhi, Dibrugarh, Dimapur, Gangtok, Gorakhpur, Guwahati, Haridwar, Hyderabad, Imphal, Itanagar, Jammu, Jorhat, Kargil, Kohima, Kolkata, Kokrajhar, Kurukshetra, Leh, Lucknow, Lunglei, Majuli, Mandi, Muzaffarpur, Noida, Pasighat, Patna, Pali, Pilibhit, Ranchi, Ropar, Senapati, Shillong, Shimla, Silchar, Srinagar, Tezpur, Tezu, Tirupati, and Tura 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 causes, 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

Welcome to NIELIT Kolkata, one of the oldest Centres among all 56 NIELIT offices in the country and a paradise of learning in the field of Information, Electronics and Communications Technology (IECT) resulting in Digital Literacy, Skill Development and Capacity Building towards a Digital Society.

Our Vision is "*to be the leader in the development of industry oriented quality education and training and be the country's premier Institution for examination and certification in the field of Information, Electronics and Communications Technology (IECT)*".

Since its inception in 2003, NIELIT Kolkata has established itself as a premier institution providing affordable quality education as per the job market requirements for candidates from all over India. Apart from these, we also offer customised courses for Government and Corporate clients. As a committed and dedicated institute, our aim is to provide quality computer training/services that exceed the expectation of our students. We offer various NSQF aligned Skill Oriented short and long-term courses starting from Digital Literacy courses (ACC, BCC, CCC, CCC Plus, ECC, etc.) to specialised courses (Data Science, AI, IoT, Multimedia and Animation Technology 'O' Level, ESDM, etc.) as per industry demand leading to skill development in the area of IECT. Our Centre is also reaching out in rural areas by implementing the Capacity Building initiative of NIELIT for weaker section of the society, funded by Govt of India.

We have started a cluster of Centre of Excellence in new emerging areas for Future Skills PRIME capacity building projects (Blockchain, Data Analytics, AR/VR, Robotic Process Automation, Cyber Securities, IoT, etc.) of Ministry of Electronics and Information Technology (MeitY), Government of India. The basket of activities of NIELIT Kolkata 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.

The Kolkata Centre has been entrusted with execution of the national level project on "Computerization (software development and data processing) of Agriculture Census 2021-22" by the Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt of India, which conducts Agriculture Census in the country at five yearly intervals to collect detailed data on operational holdings in the country. The Centre was associated with the NIC for carrying out data entry and processing for the last 5 Agriculture Censuses.

NIELIT Kolkata is the implementing agency for the Govt. of India sponsored Training program in the area of Electronic System Design and Manufacturing (ESDM) in the state of West Bengal with the help of its Accredited Training Partners and thereby providing an opportunity to the youths of West Bengal for making their career in ESDM sector. We are also implementing training program for the youths of West Bengal under the project "Skill Development of youths in Aspirational Districts in area of IECT leading to enhancement in Employability". We are also implementing ST/SC job seekers scheme by Directorate General of Employment for SC/ST youths in the state of West Bengal with IT-O Level & CHM-O level courses.

NIELIT, being a key constituent unit of Ministry of Electronics and Information Technology (MeitY), Government of India, also undertakes a wide range of Upskilling / Reskilling and Capacity Building programs aimed towards supporting the initiatives of the State Government in IECT and related areas. It is, in fact, the preferred agency for rollout of Government initiatives on self-sustainable basis in areas ranging from skilling and empowerment of SC/ST, under-deprived, Women, weaker section etc; recruitment of technical manpower; R&D in IT and Electronics; Online services and many other technical related projects. Most of our courses are free of cost for eligible SC/ST candidates.

The institute provides quality education in online, blended and class room modes delivered through modern ICT tools. Our strength is in our qualified and experienced faculty members and state of the art infrastructure. We focus on providing excellence in training, by conducting research and development activities, consultancies. In all training courses, our goal is to maintain a learner-centric focus towards producing competent professionals in Computer Science and Electronics and Communication technologies contributing towards the development of new technologies to achieve our Vision by contributing towards the welfare of entire mankind.

Under the dynamic and visionary leadership of Director General, NIELIT in the last few years has metamorphosed into a national institute of repute, scripting an extraordinary growth story, which can be rarely matched by other organizations. I encourage you all to be a part of this growth story and explore all that NIELIT Kolkata Centre has to offer!

NIELIT Kolkata is fulfilling the dream of Atmanirbhar Bharath through advanced Science and Technology Training in the area of Information, Electronics and Communications Technology. Come, join the NIELIT Kolkata family now to transform your life; and explore a bright future ahead.

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 conduct the entire process through registration, evaluation and certification. Stakeholder details are as under:

- **Stakeholder 1: NIELIT Kolkata**

  Roles and responsibility-Registration, Evaluation and Certification

- **Stakeholder 2:**

  NIELIT Accredited, NIELIT Affiliated, Common Service Centre (CSC), Charitable Trusts/Organizations & Others who are having specialization in advance area of multimedia/ IoT/ Machine Learning/ Artificial Intelligence/Big Data/ Blockchain experience in conducting industry oriented courses linked with placement.

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. Only Two (02) No. of attempts are allowed for successful completion of the Course.

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 Table1.

- **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 200km and min 80 for institutes located above 200km.

- **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.

- **New Course Addition:** If an institute requests to include a new course within our existing course list in EOI, then the institute have to pay Rs 5000/- (Five Thousand). This fee is applicable for maximum 3 (three) proposed courses at a time.

Infrastructure requirement for conduction of training:

- **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 4GB / 8GBRAM, 500 GB Hard Disk) or appropriate infrastructure as per the course being offered.
  b) Internet Connectivity: 10 Mbps line/ 100 Mbps 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 10 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 Qualification:

Qualification 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	Post Graduate Diploma in Computer Application and IT trends	600	12	Graduation	1000	1000
2	Diploma in Computer Application with Accounting, Business Application and Digital Marketing Schemes	500	6-8	X	750	750
3	Computer & Soft Skills with Communicative English	500	6-8	X	750	750
4	Career-Ready Skills Development Program (Digital, Communication & Entrepreneurship)	400	4-6	X	750	750
5	Diploma in Computer Application	400	12	XII	750	750
6	Diploma in Hardware and Networking	400	12	XII	750	750
7	Certificate Course in Advance JAVA	80	2-3	XII	600	600
8	Certificate Course in "C" Language	80	2-3	XII	600	600
9	Certificate Course in C++	80	2-3	XII	600	600
10	Certificate Course in Auto-CAD	80	2-3	ITI/ Polytechnic/HS /BE/ B.Tech	600	600
11	Certificate Course in Desktop Publishing	80	2-3	XII	600	600
12	Certificate Course in Financial Accounting and GST using Tally	80	2-3	XII (preferably Commerce)	600	600
13	Certificate Course in Web Designing	80	2-3	XII	600	600
14	Certificate course in PHP and MySQL	80	2-3	XII	600	600
15	Certificate Course in Data Science using Python	80	2-3	XII	600	600
16	Certificate Course in Office Tools	40	1-2	VIII	375	375
17	Certificate Course in Soft Skill and Communicative English	40	1-2	X	375	375
18	Ethical Hacking Basics & Counter measures	40	1-2	XII	375	375
19	Data Analytics and Data Visualization [DADV] (50 Hrs)	40	1-2	XIII	375	375
20	Certificate Programing in 2D Animation	150	4-6	XII	600	600
21	Certificate Course in Multimedia Developer & Tools	180	4-6	XII	600	600

Sl	Course Name	Course duration in hrs	Month wise duration*	Min Eligibility (appearing/ appeared)	Registration Fees without GST	Examination Fees without GST
22	Certificate course in Revit	80	2-3	XII	600	600
23	Course in Autodesk Inventor	80	2-3	XII	600	600
24	Certificate Course in Power BI and Tableau	30	1	XII	375	375

Gradation Table

SlNo	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. Post Graduate Diploma in Computer Application & IT trends (600 hrs)

S.No	Topic	Minimum No. of Hours
1	Introduction to Computers & Operating Systems - Basics of Computers (Hardware & Software), Number System (Digital, Binary, Octal and Hexadecimal), Boolean Algebra Postulates, logic gates: NOT, AND, OR, NAND, XOR, XNOR, truth tables, History and Generations of Computers, Types of Computers (Supercomputers, Mainframes, PCs, etc.), Operating Systems (Windows), File Management & System Navigation	50
2	Microsoft Office Suite – MS Word: Document Formatting, Tables, Mail Merge, Picture Shapes , Header & Footer, Hyperlink, Watermark, Macro, MS Excel: Formulas, Functions, Charts, Pivot Tables, Conditional formatting, MS PowerPoint: Slide Design, Animations, Presentations, MS Access: Basics of Databases & Queries	100
3	Network, Internet & Web Technologies - Basic of Network (Analogue and digital Communication >>Mode of Communication- Simplex, half duplex and full duplex >>Network Architecture- Client server, Peer to Peer), Network Type and Topologies, Basics of the Internet & Browsing, Email Management & Online Communication, Cloud Storage & Online Collaboration, Cyber Crime: Definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying, Cyber safety: Safely browsing the web, identity protection, confidentiality	50
4	Programming Fundamentals - Introduction to Programming Logic, HTML (Basic Tags and Document structure, HTML Tags, Head Tags, Title Tags, Introduction to HTML and Web design, how to create simple Web page, how to format text, Create Table, Adding Web link and Images, Forms), Basics of C Programming, Flowcharts & Algorithms	80
5	Accounting & Business Applications – Introduction to Tally, Billing, GST, and Payroll Management, Financial Reporting & Analysis	80

6	Desktop Publishing (DTP) – Introduction to DTP, Adobe Photoshop: Image Editing & Graphic Design, CorelDRAW: Vector Graphics & Logo Design, Adobe PageMaker / InDesign: Layout Design & Publishing	70
7	Digital Marketing & IT Trends – Basics of Digital Marketing (SEO, Social Media, Email Marketing), Cybersecurity Awareness	70
8	Project Real-World Projects, Case Studies & Live Demonstrations	100
Theory/Lecture Hours:		**300**
Practical/Tutorial/Lecture Hours:		**300**
Total Hours:		**600**

2. Diploma in Computer Application with Accounting, Business Application and Digital Marketing Schemes (500hrs)

S.No	Topic	Minimum No. of Hours
1	**Introduction to Computers & Operating Systems -** Basics of Computers (Hardware & Software), Number System (Digital, Binary, Octal and Hexadecimal), Boolean Algebra Postulates, logic gates: NOT, AND, OR, NAND, XOR, XNOR, truth tables, History and Generations of Computers, Types of Computers (Supercomputers, Mainframes, PCs, etc.), Operating Systems (Windows), File Management & System Navigation	70
2	**Microsoft Office Suite –** MS Word: Document Formatting, Tables, Mail Merge, Picture Shapes , Header & Footer, Hyperlink, Watermark, Macro MS Excel: Formulas, Functions, Charts, Pivot Tables, Conditional formatting MS PowerPoint: Slide Design, Animations, Presentations MS Access: Basics of Databases & Queries	100
3	**Network, Internet & Web Technologies -** Basic of Network, Basics of the Internet & Browsing, Email Management & Online Communication, Cloud Storage & Online Collaboration	70
4	**Accounting & Business Applications -** Introduction to Tally, Billing, GST, and Payroll Management, Financial Reporting & Analysis	80
5	**Digital Marketing & IT Trends –** Basics of Digital Marketing (SEO, Social Media, Email Marketing), Cybersecurity Awareness	80
6	**Project –** Real-World Projects, Case Studies & Live Demonstrations	100
Theory/Lecture Hours:		**200**
Practical/Tutorial/Lecture Hours:		**300**
Total Hours:		**500**

3. Computer & Soft Skills with Communicative English (500 hrs)

S.No	Topic	Minimum No. of Hours
1	**Computer Fundamentals & Basics –** **Introduction to Computers:** What is a Computer, Importance of Computers in Government & Private Jobs, Components of a Computer (Hardware & Software), Types of Computers: Desktop, Laptop, Tablet, Smartphone, Understanding Input, Output & Storage Devices **Operating System Basics – Windows & Linux:** Introduction to Operating Systems (Windows & Linux), Understanding the Windows Desktop, Taskbar & Start Menu, File & Folder Management (Creating, Renaming, Moving, Deleting), Using the Control Panel & System Settings, Installing & Uninstalling Software, Understanding User Accounts & Permissions, Introduction to Linux: Basics of Ubuntu/Linux Mint **Typing Skills & Speed Building:** Importance of Typing Speed in CBT Exams & Office Work, Introduction to Touch Typing Techniques, Practice with Typing Software (Rapid Typing, TypingMaster, Online Tools), Setting Speed & Accuracy Goals **Basic Troubleshooting & Maintenance:** Common Computer Problems & Their Solutions, How to Update Software & Drivers, Managing Storage Space & Cleaning Unwanted Files, Understanding Antivirus & Security Essentials	50
2	**Office Productivity for Exams & Workplace –** **MS Word – Creating & Formatting Documents:** Introduction to Microsoft Word & Google Docs, Creating, Saving & Opening Documents, Formatting Text: Fonts, Colors, Alignment, Spacing, Inserting Tables, Images, Shapes, Hyperlinks, Page Layout & Printing Options, Creating Cover Letters, Job Applications, & Official Letters, Resume Writing & Formatting **MS Excel – Data Entry, Formulas & Charts:** Introduction to Microsoft Excel & Google Sheets, Basics of Rows, Columns & Cells, Formatting Data (Bold, Colors, Borders, Merging Cells), Entering & Managing Data, Essential Formulas: SUM, AVERAGE, COUNT, IF, VLOOKUP, Creating & Formatting Charts: Bar, Line, Pie Charts, Sorting & Filtering Data, Using Excel for Data Analysis (Basic Level) **MS PowerPoint – Presentations & Slides:** Introduction to Microsoft PowerPoint & Google Slides, Creating & Designing Slides, Inserting Text, Images, Shapes, and Graphs, Applying Transitions & Animations, Preparing PPT for Interviews & Job Presentations	100
3	**Internet, Email & Online Applications -** **Email Communication & Professional Writing:** Creating & Managing Email Accounts (Gmail, Outlook), Writing Formal Emails (Structure, Subject, Salutation, Body, Signature),	50

	Attaching Files & Using CC/BCC, Managing Inbox, Folders & Spam Filters, Email Etiquette for Government & Private Jobs **Internet Browsing & Digital Literacy:** Introduction to Web Browsers (Chrome, Firefox, Edge), Effective Use of Search Engines (Google, Bing), Using Google Search Operators for Better Results, Identifying Fake News & Safe Browsing Practices, Understanding Digital Footprints & Cyber Safety **Government e-Services & Online Applications:** Registering on Government Job Portals (SSC, WBPSC, IBPS, etc.), Filling Online Job Application Forms (Step-by-Step Guide), Uploading Photos, Signatures & Other Documents, Online Payment Methods & Troubleshooting Payment Issues, Checking Admit Cards, Results & Notifications Online	
4	**Computer-Based Test (CBT) Practice & Mock Tests -** **Understanding CBT Exam Format:** What is a Computer-Based Test (CBT), Navigating the CBT Exam Interface, Time Management Strategies for CBT Exams, Avoiding Common Mistakes in Online Tests **CBT Mock Tests & Question Solving:** Practicing Online Tests for: General Awareness (Current Affairs, History, Geography, Politics), Reasoning & Logical Thinking, Quantitative Aptitude (Basic Math, Data Interpretation), Analyzing Test Results & Improving Weak Areas	40
5	**Resume Building, Job Readiness & Digital Skills –** **Resume Writing & Cover Letters:** Importance of a Well-Formatted Resume, Creating ATS-Friendly Resumes, Customizing Resumes for Government & Private Jobs, Writing Professional Cover Letters **Job Search Strategies & Application Process:** Using LinkedIn, Naukri, Govt Job Portals Effectively, Understanding Job Descriptions & Matching Skills, Preparing for Walk-in Interviews & Online Applications **Digital Payments & Government Services:** Using UPI, Net Banking & Mobile Wallets, Applying for Aadhar, PAN, Ration Card Online, Understanding Digital India & Govt Schemes, Using Government Apps for Jobs & Education	60
6	**Confidence Building & Communication Skills –** **Building Self-Confidence & Motivation:** Understanding the importance of self-confidence in career growth, Identifying personal strengths and weaknesses, Overcoming fear of public speaking through practical exercises, Developing positive thinking habits and self-motivation techniques, Setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals for career success, Practicing daily confidence-building exercises and affirmations **Leadership & Teamwork:** Defining leadership and its importance in professional environments, Understanding different leadership styles and their applications, Developing decision-making and problem-solving skills, Practicing real-life leadership scenarios through case studies,	40

	Importance of teamwork in professional and exam settings, Strategies for effective team coordination and collaboration, Handling conflicts within a team and resolving disputes professionally **Time Management & Productivity:** Learning time management principles for balancing studies and work, Using prioritization techniques like Eisenhower Matrix & Pomodoro Technique, Creating effective to-do lists, planners, and digital scheduling tools, Identifying time-wasting habits and replacing them with productive routines, Practicing focus and concentration exercises for enhanced productivity	
7	**Workplace Readiness & Professional Etiquette –** **Professional Etiquette & Grooming:** Understanding the significance of professional appearance, Dress codes for government and private job roles, Basics of personal grooming and hygiene in the workplace, Workplace do's and don'ts: punctuality, discipline, and professional behaviour **Business Communication Skills:** Writing structured and professional business emails and reports, Formatting emails correctly with appropriate subject, salutation, and tone, Understanding telephone and video call etiquette for formal communication, Handling client and colleague interactions effectively **Conflict Resolution & Decision-Making:** Learning strategies to manage workplace conflicts diplomatically, Developing emotional intelligence for better workplace relationships, Understanding different problem-solving techniques, Practicing real-life workplace scenarios for better decision-making	30
8	**Government Job Interview Preparation –** **Interview Preparation:** Understanding the most common questions in government job interviews, Learning the STAR (Situation, Task, Action, Result) method for structured responses, Mastering body language and non-verbal communication for interviews, Conducting mock interviews for real-time feedback and improvement. **Public Speaking & Group Discussion:** Techniques to develop clear and confident speech, Learning how to structure and express opinions effectively in group discussions, Overcoming stage fear and nervousness through guided practice, Conducting role-playing exercises for public speaking confidence **Handling Stress in Interviews:** Practicing mindfulness and relaxation techniques to stay calm under pressure, Developing mental resilience through guided meditation exercises, Managing last-minute nervousness with effective self-control strategies	30
9	**English Grammar for Competitive Exams –** **Sentence Construction & Tenses:** Understanding the rules for constructing proper sentences, Learning and applying Present, Past & Future tenses correctly in writing and speaking, Subject-verb agreement, sentence connectors, and modifiers **Common Grammar Mistakes & Corrections:**	40

	Identifying confusing words and commonly misused phrases, Correcting punctuation errors for proper sentence flow, Learning prepositions, conjunctions, and interjections **Building Vocabulary:** Understanding government job-related terminologies, Learning synonyms, antonyms, idioms & phrases, Practicing daily vocabulary exercises for improved retention	
10	**Spoken English & Fluency for Interviews –** **Pronunciation & Accent Training:** Identifying and correcting common mispronunciations, Improving clarity and natural speech flow, Learning phonetics and sound variations in English **Conversational Practice & Role-Plays:** Engaging in real-life situations like greetings, job interviews, office communication, Building confidence through daily conversation practice, Role-playing job interview scenarios, office discussions, and presentations **Group Discussions & Debates:** Learning structured speaking techniques for discussions, Improving fluency and confidence in delivering opinions, Practicing debate techniques for formal argumentation and persuasion	30
11	**Business & Workplace English-** **Email & Formal Letter Writing:** Learning structured formats for professional emails and memos, Writing effective and concise business emails, Structuring official letters and formal reports **Speaking in Meetings & Presentations:** Preparing effectively for workplace meetings, Structuring and presenting ideas clearly and concisely, Developing public speaking confidence for office presentations **Negotiation & Handling Difficult Conversations:** Learning professional ways to agree or disagree in formal discussions, Techniques for negotiating salaries, promotions, and benefits, Handling workplace disagreements diplomatically and professionally	30
Theory/Lecture Hours:		**200**
Practical/Tutorial/Lecture Hours:		**300**
Total Hours:		**500**

4. Career-Ready Skills Development Program (Digital, Communication & Entrepreneurship) (400 Hours)

S.No	Topic	Minimum No. of Hours
1	**Computer Fundamentals & Basics:** • **Introduction to Computers**: Basic concepts, hardware & software, types of computers, devices. • **Operating System Basics**: Windows. • **Typing Skills & Speed Building**: Touch typing techniques, speed and accuracy.	30

	• **Basic Troubleshooting & Maintenance**: Solve common issues, software updates, and antivirus essentials	
2	**MS Office:** • **MS Word**: Document creation, formatting, letter & resume writing. • **MS Excel**: Data entry, formulas, charts, and analysis. • **MS PowerPoint**: Presentation design and interview preparation.	50
3	**Internet, Email & Online Applications:** • **Email Communication**: Writing formal emails, inbox management, and etiquette. • **Internet Browsing & Digital Literacy**: Safe browsing, search engines, and digital footprints.	50
4	**Personal Development & Leadership:** • **Self-Confidence Building**: Overcoming public speaking fear, positive thinking, and SMART goals. • **Leadership & Teamwork**: Decision-making, team coordination, and conflict resolution. • **Time Management & Productivity**: Eisenhower Matrix, Pomodoro Technique, and focus exercises. • **Leadership in Action**: Real-life case studies on leadership challenges and teamwork dynamics.	70
5	Professional Etiquette & Business Communication: • **Professional Etiquette & Grooming**: Dress codes, personal grooming, and workplace behaviour. • **Business Communication**: Writing professional emails, handling calls, and client interaction. • **Conflict Resolution & Decision-Making**: Strategies for managing workplace conflicts and making decisions under pressure. • **Effective Networking**: Building relationships and presenting yourself in professional settings.	60
6	**Spoken & Written English for Career Success:** • **Pronunciation & Accent Training**: Correcting mispronunciations and improving clarity. • **Conversational Practice & Role-Plays**: Job interviews, office communication, and real-world scenarios. • **Group Discussions & Debates**: Structured speaking techniques, debate practice, and persuasion skills. • **Business Writing**: Email & Formal Letter Writing: Business emails, memos, and official letters. • **Public Speaking & Presentations**: Speaking in meetings, pitching ideas, and handling public speaking situations.	70

7	**Entrepreneurship & Business Skills:** • **Business Planning & Strategy**: Developing a business idea, market research, and strategic planning. • **Financial Management**: Budgeting, financial forecasting, and managing cash flow for startups. • **Marketing & Branding**: Creating a brand identity, marketing strategies, and digital marketing tools. • **Leadership & Risk Management**: Managing teams, handling challenges, and mitigating risks in entrepreneurship. • **Pitching & Networking**: Crafting a business pitch and building professional networks for growth.	70
Total Hours:		**400**

5. Diploma in Computer Application (400hrs)

S.No	Topic	Minimum No.of Hours
1	**Information Technology, Office Tools, Soft Skills and Financial Literacy for Banking Skill with Application** Fundamentals of Computer, Word processing concepts: saving, Closing, Opening an existing document, selecting text, editing text, Finding and replacing text, printing documents, Creating and Printing Merged Documents, Mail Merge, Character and Paragraph Formatting Spread sheet Concepts, Creating, Saving and Editing a Workbook, Inserting, Deleting Work Sheets, entering data in a cell /formula Copying and Moving from selected cells, handling Basic Formulae &Functions, Formatting Cells – changing data alignment, changing date, number, character or currency format, changing font, adding borders and colors Creating, Opening and Saving Presentations, Creating the Look of Your Presentation, Working in Different Views, Working with Slides, Graphs & Charts **Soft Skills and Communicative English-** Refresher classes on English Grammar and Vocabulary, Connected Speech: Word stress and sentence stress, Reading from texts, computer aided teaching and learning exercises, Entry behaviour evaluation, Introductory Module on Personality, Presentation and speech giving techniques, Module on Office Etiquette, Module on Customer Care, Telephone handling Techniques, Module on Active Listening, Module on Product features and benefits, Module on objection handling and questioning Techniques, Power point Presentation, Module on Tele-marketing and Prospecting, Module on Complain handling and handling of difficult people, Group Discussion, Conducting Mock interviews, Interactive sessions **Financial Literacy for Banking Scheme and Applications -** Why savings are needed, Why save in a bank, Banking products- ATM card, Banking Instruments-Cheque, Demand Draft(DD),Banking Services Delivery Channels, Know Your Customer(KYC), Opening of bank account and documents required, Types of bank accounts, Bank's services including remittances, Mobile banking Password security and ATM withdrawal	80
2	**Programming and Problem Solving through Python Language** **Introduction to Programming:** The basic Model of computation: Algorithms,	80

	Flowcharts, Types of Programming Languages **Introduction to Python:** Python Introduction, Technical Strength of Python, Introduction to Python Interpreter and program execution **Operators, Expressions and Python Statements:** Assignment statement, Expressions, Arithmetic, Relational, Logical operators and their precedence **Branching and Conditional Statements:** If, if-else, if-elif-else, Simple programs **Loops in Python:** Notion of iterative computation and control flow – range function, While Loop, For Loop, Break Statement, Continue Statement, Pass statement, Else **Sequence Data Types:** Lists, Tuples, Dictionary. **String:** Input/Output, Indexing, Slicing, Looping strategy, Methods **File Processing:** Concept of Files, File opening in various modes and closing of a file, Reading from a file, Writing onto a file, File functions-open(), close(), read(), readline(),readlines(),write(), writelines(),tell(),seek(), Command Line arguments **Modules:** Module Basics, Import Module	
3	**Web Design, Data Communication and Networking** Introduction of HTML, Writing my first HTML Page, Basic tags used in HTML, Elements In HTML, Attributes In HTML, Formatting In HTML, Meta Tags and their use, Commenting a HTML Code, Images and incorporating images, working with Tables, Working with Lists, Working with hyperlinks, Frames and frame management, Working with Iframes, Working with Block elements, Background images, Coloured text and coloured background, working with fonts, Form designing and Form Management, Using Multimedia inside HTML, Marquee Tag, Headers, Working with Layouts, Role of Tags in Html, Attributes in Html, Event Handling, MIME Media Types. Introduction of CSS, CSS Syntax, CSS Selectors, Ways To Insert CSS, Background image handling, Background colour management using CSS, Text management using CSS, Font management using CSS, Managing Hyperlinks using CSS, Managing Lists using CSS, Designing Tables using CSS, Working with the BOX Model, Designing Borders using CSS, Designing Outline using CSS, Setting Page Margin using CSS, Padding using CSS, Setting Display Using CSS, Setting Width And Max Width using CSS, Setting Position using CSS, Setting the Float Property using CSS, Inline Block property, Horizontal Alignment in CSS, Working With Combinators, Working with Pseudo-class, working with Pseudo-elements, Creating a navigation bar, Working with images, Working with Attribute selectors. JavaScript Basics, JavaScript Syntax, Enabling JavaScript in Browsers, Placing JavaScript, Variables, Operators, Conditional Statement(if, if else), Switch case, Loops(while, do while and for loop), Functions, Events and event handling, Cookies, Page Redirection, Dialog Box(Alert, Confirm, prompt), void keyword, Printing webpage using JavaScript, Working with Objects, Numbers, Boolean, String in JavaScript, Arrays and Array Management, Working with Date, Mathematical operations, Regular Expressions, Document Object Model (DOM), Errors and Error Handling, Client Side Validation, Animations in Webpages, Multimedia in Webpages, Image Map. Introduction to Data and Information, Data Communication, Data Representation, Data Transmission Modes, Computer Networks. Network Topology (Bus topology, Star topology, Ring topology, and Mesh topology), Categories of Networks (LAN, MAN, WAN), Protocols, and Standards in Networking, OSI Model, TCP/IP Model, Addressing in TCP/IP, Transmission Media and its Categories, guided Media, Comparison between Twisted Pair Cable, Co-Axial Cable and Optical Fiber, Unguided Media, Network Devices: Hubs, Switches, Bridges, Repeater, Router, Gateway, Data and Signals, Analog Signal, Digital Signal, Types of Channels, Transmission of digital Signal, Bandwidth of Signal and Channel, Multiplexing, FDM, TDM, CDM, WDM, SDM, Switching, Circuit Switched and Packet Switched Networks, Comparison between Circuit Switching and Packet Switching, Data Link Layer Services, Common Data Link Layer Protocols, Token Ring / IEEE 802.5, Medium	80

	Access Control (MAC), Random Access Protocols, Controlled Access Protocols, Channelization (FDMA, TDMA, CDMA), Physical Addressing, Error Dete, tion, Identifying the Encapsulated Data, Framing, Flow Control, Error Control, Congestion Control, Network Layer, Internetworking, Internet Protocol (IP), and IPV4, Internet Control Protocol (ARP, RARP, ICMP, and IGMP), Types of Security (Application Security, Computer Security, Data Security, Information Security, Network Security), Need of Security, Security Services (Confidentiality, Integrity, Availability, Authentication, Non-Repudiation, Access Control), Firewalls, Malware, Types of Malware, Security Countermeasures, Antivirus Software.	
4	**Application Development using PHP and MySQL** Introduction of Web Site: Concept of Website and Web Pages, types of Websites Introduction to Open source Technologies: Operating system, Web Server, Database, Scripting Languages Platforms for website development: LAMP, WAMP and MAMP, Scripting language Introduction of Php: Programming Concepts, Architecture of web application, PHP Data Types and basics Control Structures: Conditional statement, if, else, case, for, while loops Arrays in PHP: Types of Arrays, Array attributes, Associative arrays, Array functions. PHP Functions: String and other functions in PHP, Super global, PHP Functions, Types of Function: User Defined Function and Inbuilt Functions, PHP Email Function etc. Object Oriented Concepts: Classes, defining a class and its usage, Constructor, Inheritance, Exception Handling, Use of include and require. PHP Forms methods: GET, POST& REQUEST, creating user forms File handling in PHP: Uploading files and images, Using file system in PHP. What is database? Why data base? Architecture of Database Management System, Advantages of DBMS **Tables-** Introduction to Tables, Different Ways of creating a table, Guidelines for naming fields, Controls and Objects, Create a table using the Table Wizard **Designing a Table-** Create a table from scratch using Design view, Setting Primary Keys, Modifying the Table Design- To insert the field within the table, Rename a field name in a table, Deleting Fields, Moving Fields, Changing a Field Size, Saving a Table, Sorting and Filtering Data in a Datasheet-Quick-Sort Feature. **Query Basics and SQL-** What is a Query? Usage of Queries, Types of Queries, Steps for Creating a Query, Removing a Field, Inserting a Field, Hiding Fields, Working with Action Queries Creation of Database Connection file, Database connectivity, using MySQL functions in PHP. Server-side validations. Inserting, Updating, deleting data using PHP and MySQL through forms, Bind Parameters for Database Queries, Using MySQL Store procedures in PHP, Database server configuration using IPv4 and IPv6, Fetching Data from Database server. Web service architecture & Introduction, Session and cookies, Authentication and Authorization, storing hashed passwords in the database, Login and Logout operation, Access Control Filter, Session based and cookie-based login, Using security features etc. SQL Injection, Cross Site Scripting, Broken Authentication and Session Management, Insecure Direct Object References, Cross Site Request Forgery, Security Misconfiguration, Insecure Cryptographic Storage, Failure to restrict URL Access.	80
5	Project	80

6. Diploma in Hardware and Networking (400 hrs)

S.No	Topic	Minimum No. of Hours
1	**Introduction to Computers**	12

	Introduction to basic computer systems and their components including input, processing, and output units; Understanding the difference between hardware and software; Study of types of computers such as desktop, laptop, and tablets; Introduction to operating systems including basics of functions such as process management, memory management, file system handling, and user interface; Basic understanding of commonly used operating systems such as Microsoft Windows and Linux; Basic understanding of number systems including binary and decimal representation.	
2	**Motherboards and Digital Basics** Study of motherboard types and form factors including ATX and Micro ATX; Identification of motherboard components such as CPU socket, RAM slots, BIOS, and CMOS battery; Introduction to basic concepts of Digital Electronics including logic gates (AND, OR, NOT) and simple truth tables; Practical exercises on identification and handling of motherboard components. Basic understanding of electronic components such as diode and transistor and their role in computer hardware; Introduction to switching concepts and basic power supply working (SMPS); Integration of these concepts within hardware-related topics for better understanding.	30
3	**Microprocessors and Microcontrollers** Introduction to microprocessor architecture and working; Study of Intel 8085 and Intel 8086 including instruction sets and basic programming concepts; Introduction to microcontrollers with study of 8051 microcontroller architecture and applications; Comparison between microprocessors and microcontrollers; Overview of modern processors (multi-core CPUs, embedded systems, IoT processors); Basic interfacing concepts and applications. Electrical Properties and Application of Intel i7 Processor for Workstation, Intel i9 10980XE, AMD Ryzen3, AMD Ryzen5 Processors for Midrange Computer, Introduction to Indian Processor and its Applications – Shakti and Vega, Main and System Assistance Processor (SAP) for Mainframe Computer, Cray XC400 Parallel Multiprocessor Supercomputer, Introduction to Indian Super Computer and its Applications.	40
4	**Memory, I/O Port and Computer Peripherals** Understanding memory hierarchy and types of computer memory including primary memory (RAM, ROM, Cache) and secondary memory (Hard Disk, SSD, Pen Drive); Study of memory capacity and storage units; Introduction to virtual memory concepts; Practical exercises on storage device handling, formatting, and basic maintenance. Study of computer buses — Data Bus, Address Bus, and Control Bus; Understanding Input/Output Ports such as USB, HDMI, VGA, Serial, and Parallel ports; Configuration and identification of connectors and cables; Hands-on practice on connecting various I/O devices; Study of PCI, PCIe, SATA, and NVMe interfaces; Troubleshooting communication and port-related issues. Practical exercises on identification and usage of ports and connectors. Study of input and output devices including keyboard, mouse, printer, scanner, webcam, and external drives; Understanding the internal mechanism of printers (dot matrix, inkjet, laser); Installation of device drivers, testing, and maintenance 5of peripherals; Practical tasks on assembling, connecting, and troubleshooting p6eripherals; Preventive maintenance techniques and handling procedures for peripheral devices.	46
5	**Basic Electronic Components, Circuits and Signals** Introduction to basic electronic components including passive components such as resistors, capacitors, and inductors, and active components such as diodes and transistors; Understanding the working principles, characteristics, and applications of these components in electronic circuits; Study of basic electrical laws including	54

	Ohm's Law and Kirchhoff's Laws and their application in circuit analysis; Analysis of simple series and parallel circuits and voltage-current relationships; Introduction to electronic circuit symbols and schematic diagrams; Basic measurement techniques using instruments such as multimeter for voltage, current, and resistance; Introduction to semiconductor devices and rectifier circuits (basic idea); Practical exercises on identification of components, circuit connections, soldering basics, and performing simple measurements and circuit testing. Introduction to analog and digital signals and their characteristics; Understanding the difference between continuous and discrete signals; Study of basic signal parameters such as amplitude, frequency, and time period; Introduction to signal representation and waveform types; Basic concept of noise and interference in electronic systems; Overview of signal conversion techniques including analog-to-digital and digital-to-analog conversion (basic idea); Understanding the importance of signals in communication and computer systems; Practical demonstrations of simple signal generation and observation.	
6	**Display Units** Study of monitor technologies — CRT, LCD, LED, and OLED; Understanding display parameters such as resolution, refresh rate, contrast ratio, and aspect ratio; Identification of connectors (VGA, DVI, HDMI, Display Port); Troubleshooting display problems such as no signal, color distortion, and flickering; Adjustment of monitor settings and replacement procedures.	14
7	**Sensors and Embedded Systems Basics** Introduction to different types of sensors such as temperature, light, motion, and proximity sensors and their applications in real-world systems; Understanding basic working principles of sensors and signal output; Introduction to interfacing concepts and how sensors communicate with electronic systems; Basic idea of analog and digital signals in sensor-based systems; Study of simple interfacing techniques with microcontrollers such as 8051 microcontroller; Overview of applications in automation and Internet of Things (IoT); Practical exercises on basic sensor connections and demonstration of interfacing concepts. Introduction to embedded systems and their role in modern electronic devices; Understanding the basic architecture of embedded systems including hardware and software components; Study of microcontrollers and their applications in embedded systems; Overview of commonly used controllers such as 8051 microcontroller; Understanding real-time applications in devices such as home appliances, automobiles, and industrial systems; Basic concept of input/output interfacing in embedded systems; Introduction to embedded programming concepts and development tools (basic idea); Practical demonstrations of simple embedded system applications.	40
8	Introduction to computer networks and their types including Local Area Network (LAN), Metropolitan Area Network (MAN), and Wide Area Network (WAN); Study of networking devices such as hub, switch, and router along with their roles in data communication; Understanding different types of network cables including UTP and fiber optic cables and their basic characteristics; Introduction to RJ45 connectors and basic crimping techniques used in LAN setup; Basic understanding of IP addressing including IPv4 format, subnet mask, and default gateway; Introduction to basic networking models such as OSI model (overview) and TCP/IP model (basic idea); Understanding basic network configuration and sharing concepts in operating systems; Practical exercises on establishing LAN connections, configuring IP settings, and testing network connectivity using basic commands. Introduction to wireless communication technologies including Wi-Fi and Bluetooth and their applications in modern communication systems;	80

	Understanding IEEE 802.11 standards and wireless networking concepts such as SSID, frequency bands, and channels; Study of wireless security mechanisms including encryption techniques such as WEP, WPA, and WPA2; Introduction to basic concepts of network authentication and secure access; Understanding the working and configuration of wireless devices such as Wi-Fi adapters, routers, and mobile hotspots; Bluetooth pairing, data sharing, and troubleshooting connection issues; Basic understanding of signal strength, interference, and range in wireless communication; Troubleshooting common wireless connectivity issues; Practical exercises on connecting, configuring, and securing wireless devices, Policy & protective measures to end user against Cyber Fraud and Cyber Crime.	
9	**Booting and Post Test** Understanding the booting process and stages of POST; Study of BIOS settings, boot sequence, and boot loaders; Diagnosing POST error codes and beep sounds; Understanding common boot failures and their solutions; Practical exercises on BIOS configuration, operating system boot troubleshooting, and system recovery.	10
10	**Virus Removal and Protection** Introduction to computer viruses, malware, spyware, and ransom ware and their impact on system performance and data security; Understanding their symptoms, modes of transmission, and prevention techniques; Study of antivirus and anti-malware software along with real-time protection and firewall basics; Installation, updating, and scanning using commonly used antivirus tools; Creating system restore points and performing data backup and recovery; Safe browsing practices, email security, and basic cyber hygiene; Practical sessions on virus detection, removal, and system protection.	14
11	**Employability Skill** Refresher classes on English Grammar and Vocabulary, Connected Speech: Word stress and sentence stress, Reading from texts, computer aided teaching and learning exercises, Entry behaviour evaluation, Introductory Module on Personality, Presentation and speech giving techniques, Module on Office Etiquette, Module on Customer Care, Telephone handling Techniques, Module on Active Listening, Module on Product features and benefits, Module on objection handling and questioning Techniques, Power point Presentation, Module on Tele-marketing and Prospecting, Module on Complain handling and handling of difficult people, Group Discussion, Conducting Mock interviews, Interactive sessions.	20
12	**Project**	40

7. Certificate Course in Advance JAVA (80 hrs)

S.No	Topic	Minimum No. of Hours
1	Introduction to Core Java Features of Java, JVM concepts, Basics of Java, Class & Objects, Inheritance, Exception handling, Interface, Package.	10
2	Introduction to J2EE Features of J2EE, Application of J2EE, Components of J2EE.	06
3	SQL & JDBC Introduction to Relational model, Database, Table, SQL commands like CREATE, ALTER, DROP, INSERT, UPDATE, DELETE, SELECT, Conditional queries, Order by, What is JDBC, Creating connection using JDBC, Running SQL queries using Statement and PreparedStatement object	20
4	Beans in Servlets	14

	What is JavaBeans, POJO, Getter & Setter methods, Why Servlet, Servlet interface, HttpServlet, doGet & doPost methods, Request & Response handling using Servlet, Reading form data, Session handling in Servlet	
5	Introduction to struts framework Introduction to MVC design pattern, Features of struts framework, Controller, View, Model in struts framework	10
6	JSP Introduction to JSP, Directive elements, Scripting elements, JSP built-in objects, Request & Response handling in JSP, Reading From data, Session & cookies, JSP action elements.	10
7	Hibernation What is ORM, Advantages of ORM Performing CRUD operations using Hibernate.	10
Theory/Lecture Hours:		**30**
Practical/Tutorial/Lecture Hours:		**50**
Total Hours:		**80**

8. Certificate Course in C Language (80hrs)

S.No	Topic	Minimum No.of Hours
1	**Introduction to C** • Overview of programming and the history of C. • Structure of a C program. • Writing, compiling, and executing a simple C program. • Understanding the use of header files and libraries. • Basic input/output functions. • Understanding syntax, comments, and identifiers.	02

2	**Data types & operator**
	• Fundamental data types (int, float, char, double, etc.).
	• Derived data types (arrays, pointers, structures – introduction only).
	• Variable declaration and initialization.
	• Type conversion and casting.
	• Operators:
	  ○ Arithmetic operators (+, -, *, /, %)
	  ○ Relational and logical operators (==, !=, &&, ||, etc.)
	  ○ Assignment operators (=, +=, -=, etc.)
	  ○ Increment/decrement operators (++ and --)
	  ○ Conditional and bitwise operators.
		06

3	**Logical & looping constructs**
	• Decision-making statements:
	  ○ if, if-else, nested if, switch-case
	• Looping constructs:
	  ○ for, while, do-while loops
	• Loop control statements:
		15

	○ break, (continue, goto) • Nested loops	
4	**Functions** • Argument passing, return statement, return values and their types, recursion	06
5	**Arrays & Pointers** • String handling with arrays, String handling functions. • Definition and initialization, Pointer arithmetic, Pointers and arrays, String functions and manipulation, Dynamic storage allocation.	25
6	**Structures & union** • Definition and declaration of structures. • Initializing and accessing structure members. • Array of structures. • Nested structures. • Structure pointers. • Passing structures to functions (by value and by reference). • Introduction to unions and their differences from structures.	10
7	**Standard library & header files** • Understanding header files and their purpose (#include). • Common standard libraries. • Creating and using user-defined header files. • Preprocessor directives and macros.	06
8	**File Handling Operations** • Concept of files and file streams. • Types of files: text and binary files. • File handling functions. • Reading from and writing to files. • Error handling during file operations. • File pointers and modes. • Real-life applications (e.g., storing student records, logs, or reports).	10
Theory/Lecture Hours:		**30**
Practical/Tutorial/Lecture Hours:		**50**
Total Hours:		**80**

9. Certificate Course in C++ (80 hrs)

S.No	Topic	Minimum No. of Hours
1	**Introduction to OOP's concept** • Limitations of procedural programming. • Principles of OOP: abstraction, encapsulation, inheritance, polymorphism. • Benefits of OOP in software design. • Overview of OOP languages like C++ or Java. • Structure of a simple OOP program.	02

2	**Data types. Operator & Logical/looping** • Built-in data types and variable declarations. • Operators: arithmetic, relational, logical, assignment, and bitwise. • Conditional statements (if, switch). • Looping constructs (for, while, do-while). • Basic examples of decision-making and iteration.	05
3	**Functions and arrays** • Function declaration, definition, and calling. • Parameter passing (by value and by reference). • Recursion. • One-dimensional and multi-dimensional arrays. • Arrays as function arguments. • Introduction to pointers and dynamic memory allocation.	15
4	**Classes & objects** • Defining and declaring classes. • Creating and using objects. • Access specifiers: public, private, protected. • Constructors and destructors. • Member functions and data members. • Object arrays and pointers to objects.	10
5	**Inheritance** • Concept and need of inheritance. • Types of inheritance: single, multiple, multilevel, hierarchical, hybrid. • Access control in inheritance. • Use of constructors and destructors in inheritance. • The super or base class concept.	10
6	**Polymorphism** • Compile-time and runtime polymorphism. • Function overloading and overriding. • Virtual functions and dynamic binding. • Abstract classes and interfaces	10
7	**Operator overloading** • Need and concept of operator overloading. • Overloading unary and binary operators. • Rules and restrictions. • Examples: +, -, ==, ++, --, <<, >>.	05
8	**Function overloading** • Concept and advantages of function overloading. • Rules for function overloading. • Examples demonstrating different parameter types and numbers.	05

9	**Exception handling** • Errors vs. exceptions. • try, catch, and throw constructs. • Multiple catch blocks. • User-defined exceptions.	05
10	**File Handling Operations** • File stream classes. • Reading from and writing to text/binary files. • File pointers and modes (ios::in, ios::out, ios::app, etc.). • Error handling during file operations.	08
11	**Introduction toTemplate** • Concept of generic functions and classes. • Function templates and class templates. • Template specialization. • Advantages of templates in code reusability.	05
Theory/Lecture Hours:		**30**
Practical/Tutorial/Lecture Hours:		**50**
Total Hours:		**80**

10.Certificate Course in AutoCAD (80 hrs)

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

11. Certificate Course in Desktop Publishing (80 hrs)

S.No	Topic	Minimum No. Of Hours
1.	**MS paint** • Introduction to raster graphics and bitmap images • MS Paint interface and tool overview • Using brushes, pencils, shapes, and color palettes • Image resizing, cropping, and rotation • Text insertion and formatting • Creating posters, certificates, and simple designs	10

	• Saving and exporting images in different formats	
2.	**Photoshop** • Photoshop environment and workspace • Understanding pixels, resolution, and color modes • Tools: Move, Marquee, Lasso, Magic Wand, Brush, Clone, Gradient, Text • Layers and layer styles • Image correction and enhancement • Filters and effects • Creating posters, advertisements, and collages • Masking and blending techniques • File formats: PSD, JPEG, PNG, TIFF, PDF	24
3.	**Page maker** • Introduction to desktop publishing concepts • PageMaker interface and tools • Page setup, margins, and guidelines • Working with text and image frames • Importing text and images • Using master pages and templates • Designing brochures, newsletters, and magazines • Printing setup and export options	12
4.	**Coral draw** • Introduction to vector graphics • CorelDRAW interface and toolbars • Working with shapes, curves, and text • Color palettes, fills, and gradients • Creating logos, banners, and flyers • Combining and aligning objects • Effects: blend, transparency, contour, envelope • Import/export between CorelDRAW and Photoshop • Preparing artwork for printing	24
5.	**Project work** • Design a complete advertising package (logo, poster, brochure) • Prepare a magazine layout using Photoshop and PageMaker • Create a corporate identity set (business card, letterhead, banner) • Final presentation and print-ready output submission	10
Theory/Lecture Hours:		**20**

Practical/Tutorial/Lecture Hours:	60
Total Hours:	80

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

S.No	Topic	Minimum No. of Hours
1	**Advance Financial Accounting** Financial Accounting (Definition,Concept,Process Voucher, Journa l& Ledger, Double Entry System). Classification of A/Cs (Personal, Real & Nominal) and Golden Rules of Accounting. Capital & Revenue Expenditure,Depreciation. Reports (Trial Balance, Statement of Profit & Loss/ Receipts & Payments and BalanceSheet. Day Books (Purchase & Sale), Cash/ Bank Book, A/Cs Receivable & Payable,Debit Note,Credit Note,Bank Reconciliation.	04
2	**TallyERP9** Accounting Software (ERP/SAP, Self-developed software used by organizations,TallyERP9,etc.). Tally–Introduction, System Requirement, Main Features, Company Creation, Group Creation, Ledger Creation, Voucher entry, View Reports–Theory & Practical. Receipts & Payments Voucher, Purchase(in wardsupply)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. Concept of Financial & Assessment year,IT Act & Rules.	02
3	TDS/ TCS under Income Tax Act & GST (Concept, Payments,Returns/e-filing(Theory & Practicalusing Tally ERP9)	04
4	GST (Concept, Act/ Rules, over view) CGST, SGST, IGST, UTGST,Composition Tax, Reverse Charge Mechanism ITC,Registration,Tax Payments,Returns,Hands-onTraining.	16
5	**Costing using Tally(Theory & Practical)** Concept of Cost Centre, Cost Unit & Cost Category Budget & Budgetary Control, Standard Costing & Variance Analysis, Job & Contract Costing Data Import & Export, Change Company, Backup, Restore, Year ending etc.	06
6	**Sales Invoice & Inventory using Tally** 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, IncomeTax,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	02
Theory/Lecture Hours:		**50**
Practical/Tutorial/Lecture Hours:		**30**
Total Hours:		**80**

13. Certificate Course in Web Design (80hrs)

S.No	Topic	Minimum No.of Hours
1.	**Introduction to Internet & Web** • Overview of the Internet and World Wide Web • History and evolution of web technologies • Understanding domain names, URLs, and IP addresses • Web browsers, search engines, and web servers • Difference between static and dynamic websites • Introduction to client-server architecture	4
2.	**HTML** • Structure of an HTML document • Basic tags: headings, paragraphs, links, images, lists, tables • Forms and input elements • Semantic HTML5 elements (header, footer, article, section, etc.) • Multimedia elements (audio, video, iframe) • HTML best practices and validation	12
3.	**JavaScript** • Introduction to JavaScript syntax and data types • Variables, operators, and control structures • Functions and events • DOM (Document Object Model) manipulation • Form validation and event handling • Array Method • Date & Time • Async JavaScript • Local Storage • Introduction to ES6 features (let/const, arrow functions, template literals)	24
4.	**CSS** • Inline, internal, and external CSS • Selectors, properties, and values • The box model: margins, padding, borders • Positioning and layout (float, flexbox, grid) • Styling text, backgrounds, and lists • Responsive web design using media queries • CSS transitions and animations	20
5.	**J Query** • Introduction to jQuery library	10

	• Selecting and manipulating DOM elements • Event handling using jQuery • jQuery effects and animations • AJAX using jQuery	
6.	**BootStrap** • Introduction to Bootstrap framework • Understanding the Bootstrap grid system • Components: Navbar, Carousel, Modals, Forms, Buttons, etc. • Customizing themes and responsive design • Integrating Bootstrap with custom CSS	10
Theory/Lecture Hours:		**20**
Practical/Tutorial/Lecture Hours:		**60**
Total Hours:		**80**

14.Certificate course in PHP and MySQL (80 hrs)

SlNo	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 What is XAMPP?Why use XAMPP?How to Download and Install XAMPP Basic Webserver configuration XAMPP Control Panel Configure XAMPP What is the PHP IDE? Introduction to NetbeansIDE	4
3	Introduction to PHP:Evaluation of Php Basic Syntax Defining variable and constant Php Datatype Operator and Expression	6
4	Handling Html Form With Php Capturing Form Data Dealing with Multi-valuefiled Generating File uploaded form Redirecting a form after submission	6
5	DECISIONS AND LOOP Making Decisions Doing Repetitive task with looping Mixing Decisions and looping with Html PHP If…Else…Elseif PHP Switch PHP While Loops PHP For Loops	6
6	FUNCTION What is a function Define a function Call by value and Call by reference Recursive function	8
7	STRING Creating and accessing String Searching & Replacing String Formatting String Related Library function	4
8	ARRAY Anatomy of an Array Creating index based and Associative array Accessing array Element Looping with Index based array Looping with associative array using each() and foreach() Some useful Library function	6

9	Working with File and Directories:Understanding File & directory Opening and closing a file Copying,renaming and deleting a file Working with directories File Uploading & Downloading	10
10	STATE MANAGEMENT Using query string(URL rewriting) Using Hidden field Using cookies Using session	6
11	String matching with regular expression:What is regular expression Pattern matching in Php Replacing text Splitting a string with a Regular Expression	6
12	Database Connectivity with MySql:Introduction to RDBMS Connection with MySql Database Performing basic database operation(DML)(Insert,Delete,Update,Select) Setting query parameter Executing query	16
Theory/Lecture Hours:		**20**
Practical/Tutorial/Lecture Hours:		**60**
Total Hours:		**80**

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

S. No	Topic	Minimum No. of Hours
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
Theory/Lecture Hours:		**40**
Practical/Tutorial/Lecture Hours:		**40**
Total Hours:		**80**

16. Certificate Course in Office Tools (40 hrs)

S.No	Topic	Minimum No.of Hours
1	**Knowing Computer** • Introduction to computers: Definition, characteristics, and capabilities • Types of computers: Desktop, Laptop, Tablet, and Smartphone • Basic components: Hardware, Software, Firmware • Input and Output devices • Storage devices (Primary & Secondary memory) • Applications of computers in education, business, communication, and governance	02
2	**Operating Computer using GUI based OS** • Basics of Operating Systems: Definition and functions • Booting process and desktop environment • Using icons, taskbar, start menu, and windows • File and folder management: Create, rename, delete, move, copy • Searching and organizing files • Basic system settings: date, time, display, and volume	04
3	**Word Processing** Word Processing Basics, Opening Word Processing Package, Title Bar, Menu Bar, Toolbars & Sidebar, Creating a New Document, Opening and Closing Documents, Opening Documents, Save and Save As, Closing Document, Using The Help, Page Setup, Page Layout, Borders, Watermark, Print Preview, Printing of Documents, PDF file and Saving a Document as PDF file, Text Creation and manipulation, Document Creation, Editing Text, Text Selection, Cut, Copy and Paste, Font, Color, Style and Size selection, Alignment of Text, Undo & Redo, AutoCorrect, Spelling & Grammar, Find and Replace, Formatting the Text, Creating and using user defined Styles, Paragraph Indentation, Bullets and Numbering, Change case, Header & Footer, Table Manipulation, Insert & Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of Row, Column and Merging & Splitting of Cells, Border and Shading, Mail Merge, Table of Contents, Indexes, Adding Comments, Tracking changes, Macros	12
4	**Spread Sheet** Elements of Spread Sheet, Creating of Spread Sheet, Concept of Cell Address [Row and Column] and selecting a Cell, Entering Data [text, number, date] in Cells, Page Setup, Printing of Sheet, Saving Spreadsheet, Opening and Closing, Manipulation of Cells & Sheet, Modifying / Editing Cell Content , Formatting Cell (Font, Alignment, Style), Cut, Copy, Paste & Paste Special,	12

	Changing Cell Height and Width, Inserting and Deleting Rows, Column, AutoFill, Sorting & Filtering, Freezing panes, Formulas, Functions and Charts, Using Formulas for Numbers (Addition, Subtraction, Multiplication & Division), AutoSum, Functions (Sum, Count, MAX, MIN, AVERAGE),Sort, Filter, Advanced Filter, Database Functions (DSUM, DMIN,DMAX, DCOUNT, DCOUNTA), What-if Analysis, Pivot table Charts (Bar, Column, Pie, Line), Data Validation.	
5	**Communicating using the Internet** • **Internet Basics:** What the Internet is (a global network of computers). • **Data Transmission:** How data is broken down into **packets** and routed. • **Protocols:** Introduction to key protocols like **TCP/IP** (Transmission Control Protocol/Internet Protocol) which governs most internet traffic. • **Common Applications:** Overview of common Internet services used for communication, such as Email, Instant Messaging (IM), and Voice over IP (VoIP).	02

6	**WWW & Web Browsers**
	• Understanding the difference between the **Internet** (the hardware/network infrastructure) and the **Web** (the collection of interconnected documents/resources).
	• **Key Concepts:**
	  ○ **Hypertext and Hyperlinks:** The non-linear structure of the Web.
	  ○ **URL (Uniform Resource Locator):** The address used to locate a resource on the Web.
	  ○ **HTTP/HTTPS (Hypertext Transfer Protocol):** The protocol used to transmit web pages.
	  ○ **Web Servers:** The computers that store and deliver web pages.
	• **Web Browsers:**
	  ○ Function of a web browser (e.g., Firefox, Chrome) to interpret **HTML** (HyperText Markup Language) and render a web page.
	  ○ Browser features (tabs, bookmarks, history, settings).
		02

7	**Communication & Collaboration**
	• **Email (Electronic Mail):**
	  ○ Structure of an email address.
	  ○ Protocols (**SMTP, POP3, IMAP**).
	  ○ Email etiquette and features (attachments, CC, BCC).
	• **Collaboration Tools:**
	  ○ **Cloud Computing/Storage:** Services like Google Drive or Dropbox for file sharing and co-editing.
	  ○ **Video Conferencing:** Tools like Zoom or Microsoft
		04

	Teams. ○ **Instant Messaging/Chat:** Platforms for real-time text communication. • **Social media:** Introduction to various platforms and their use in communication. • **Ethical/Security Issues:** Brief coverage of topics like cyberbullying, privacy, and online security practices relevant to communication (e.g., strong passwords).	
8	**Making Small Presentation** • Basics of presentation software • Creating slides, adding text, and applying design themes • Inserting images, charts, and multimedia elements • Applying animations and transitions • Slide show settings and presentation tips	02
Theory/Lecture Hours:		**20**
Practical/Tutorial/Lecture Hours:		**20**
Total Hours:		**40**

17.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 Vocabulary	03
2	Consonants, Vowels in English: Purevowels(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 behaviour 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	Powerpoint 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	Lessonon '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
Total Hours:		**40**

18. Ethical Hacking Basics & Counter Measures (40 hrs)

S. No	Topic	Minimum No.of Hours
1	Need of Cyber security, Concept of Ethical hacking, Scope of Ethical hacking, Types of hackers, Phases of Ethical hacking.	2
2	Cryptography (Symmetric, Asymmetric), PKI with PGP, Steganography	3
3	Security attacks and counter measures: Information gathering, sniffing, scanning and vulnerability analysis.	6
4	Network security: Network basics, ARP cache poisoning and MITM attack, Brute Force attack, IP spoofing & MAC spoofing, IPS and IDS.	6
5	System hacking with Metasploit Framework	5
6	Website penetration Testing (SQL Injection, XSS, CSRF etc.)	5
7	WiFi Hacking	3
8	DoS& DDoS	4
9	Social Engineering	4
10	Cyber law and forensic basics	2
Total Hours:		**40**

19. Data Analytics and Data Visualization [DADV] (50 Hrs)

Sl. No.	Topics	Hours
Module-I [MS-Excel: 20 hours]		
1	Data Analysis with MS Excel, Tables, Cleaning Data with Text Functions, Cleaning Data Containing Date, Working with Time Values	2
2	Excel Data Analysis - Conditional Formatting, Sorting, Filtering, Excel Subtotal with Ranges, Working with Multiple Sheets	2
3	Excel Data Analysis - Quick Analysis, Lookup Functions, PivotTables, Data Visualization, Data Validation	2
4	Excel Data Analysis - Formula Auditing, Inquire	2
5	Excel Data Financial Analysis	2
6	Advanced Data Analysis - What-If Analysis, What-If Analysis with Data Tables, What-If Analysis with Scenario Manager, What-If Analysis with Goal Seek	2
7	Optimization with Excel Solver	2
8	Importing Data into Excel	2
9	Advanced Data Analysis - Data Model, Exploring Data with Pivot Table Exploring Data with Power Pivot, Exploring Data with Power View, Aesthetic Power View Reports	2
10	Key Performance Indicators, Slicer, VBA	2
Module-II [SQL : 12 hours]		
1	Basic concepts	1
2	Creating Database	1
3	Entity-relationship modelling	2
4	Adding Records to a table	2
5	Relational model	2
6	SQL Subqueries	2
7	Data Manipulation	2
Module-III [Power BI/Tableau: 18 hours]		
1	Introduction: Understand data visualization and BI tools. Learn about Power BI and Tableau features.	3
2	Basic Visualization: Install, connect to data, and create fundamental visualizations like bar charts, line charts, and pie charts in both tools.	3
3	Intermediate Techniques: Build interactive dashboards, explore advanced charts (e.g., maps, heatmaps), and introduce data calculations with DAX and calculated fields.	4

4	Advanced Features: Cover advanced filtering, cross-filtering, and connecting to diverse data sources. Introduce Power BI Dataflows and Tableau Prep.	4
5	Projects and Best Practices: Apply storytelling principles, design best practices, and work on hands-on projects, culminating in final project presentations.	4

20. Certificate Programing in 2D Animation (150 Hrs)

Sl No.	Topics	Duration (In Hrs.)
1	**Drawing Fundamentals for Animation**	**9**
	• Basics of Character Design	3
	• Concept of Anatomy Study & Proportion of Figure	
	• Anatomy Basic Figure Sketch	
	• Cartoon Character Head Drawing & Rotation	
	• Cartoon Palm Drawing (4 & 5 finger)	
	• Cartoon Body Shape Drawing	3
	• Character Rotation	
	• Character Expression & Pose Drawing	
	• Character Design from Script follow	
	• Basics Perspective drawing	3
2	**Introduction to Storyboard & Animatics**	**6**
	• Importance of Storyboard in Animation	1
	• Camera Angle Staging for Storyboard	
	• Creating Storyboard for an Animation Space	
	• Manual/ Digital Storyboard Drawing by Script Follow	1
	• Introduction of Animatics By using Adobe Flash	
3	**Background Drawing in Photoshop**	**18**
	• Basics Knowledge of Photoshop	3
	• Digital Drawing of Props	3
	• Background Layout Concept & Sketch from STB	6
	• Basic Digital Painting of BG by Photoshop	6
4	**Adobe Flash**	**30**
	• Concept of ActionScript	3
	• Interface of Adobe Flash & Uses of Tools	
	• Concept of Layers, Properties of Library & Timeline	
	• Concept of Keyframe	3
	• Introduction to 2D Animation	
	• Frame by Frame Animation	
	• Tracing	3
	• Background Drawing by Using Flash	3
	• Concept of Masking & Symbol	3

	• Basic Whiteboard Animation	3
	• Concept of Tweening for smoother Animation	3
	• Car Animation	
	• Butterfly Animation by using Guideline	3
	• Bird Animation	3
	• Day & Night Animation	3
5	**Character Rigging**	**6**
	• Basic of Character Rigging for Animation	3
	• Lip Sync of Front, Profile & 3/4th Character & Expression	3
6	**Introduction to 2D Animation**	**3**
	• Overview of 2D Animation	3
	• History of Animation & Evaluation	
	• Flip book Concept	
7	**Application of 2D Animation Principle**	**9**
	• Introduction of 12 Principle of Animation	3
	• Application of 12 Principle like Ball Bounce, Feather, Iron Ball etc.	6
8	**2D Animation**	**33**
	• Basic Walk Cycle by Brush	3
	• Profile Walk by Rigging Character	3
	• Progressive Walk & Non-progressive Walk	3
	• Walk to Stand & Vice-versa	3
	• Front Walk	3
	• 3/4th Walk	3
	• Run Cycle in Profile view	3
	• Posing by Rigging Character	3
	• Staging & In-between	3
	• Hand Action	3
	• Lip Sync & Expression	3
9	**Project Work & Portfolio Development**	**30**
	• Create an Animation of a short story by the Student Individually	24
	• Create Portfolio Individually	6
10	**Video Editing**	**6**
	• Introduction to Adobe Premier Pro Interface	3
	• Video Editing & Rendering Video	3
Total Hours		**150**

21. Certificate Course in Multimedia Developer & Tools (180 Hrs)

Sl No.	Topics	Duration (In Hrs.)
1	**Introduction to Mutimedia:** Basic Multimedia Concepts, Definitions of Multimedia, Multimedia objects: Text, Graphics, Animation, Audio, Images, video, definition of hypertext and hypermedia. Multimedia applications in education, entertainment, advertising world etc. Components of a Multimedia system, desirable features for a multimedia system, requirements of multimedia communication.	10
2	**Image Editing & Graphic Designing:** Concepts on Image and Photo Editing, Graphic Designing, Masks and Channels, Retouching and Repairing, Painting and Editing, Basic Pen tool techniques, creating special effects. Digital Design, Page Layout Design, Interactive Design, 3D Modelling, Texturing, Digital Illustration, User Interface Design, Compositing and 3D Animation.	25
3	**Audio Editing:** Sound editing, recording, sound effects, Audio compression, audio production, basic sound editing and navigation, advanced editing, recording, applying sound effects, applying sound process	20
4	**2D Animation:** Introduction to 2D Animation, Computer based animation, sprite animation, rendered animation. Introduction to tweening, warping, morphing, walk cycle. Shapes and Objects.Transformation Tools.	30
5	**Video Editing & Special Effects:** Multiple exposure, mattes and introduction to computer generated imagery. Basic to Advanced level video editing, Basic Overview, Transitions and Titles, Editing Techniques, Adding video effects and motion, adding audio, Alpha Channels and Mattes, Tools and Techniques for advanced editing, Media Management(Post-edit), colour correction, Titleing and composting, Packaging Timeline, Edit to tape(mastering) & exporting to different media Introduction to Mechanical Effects and optical effects. Scenery, scale models, animatronics, pyrotechnics and atmospheric effects.	25
6	**3D Animation:** Introduction to 3D animation, Understanding of 3D Coordinate systems, concept of Viewport, navigation in space, modelling of objects in 3D space, Viewing Transformations: Camera models, Using Transformation Tools.	30
7	**Introduction to Web Page Development:** Introduction to Web Page Development, Introduction to the Internet and World Wide Web, Designing and Building your	20

	website, using content types effectively, hypertext theory and node link diagrams. Planning a website. Design Guidelines.	
8	**Development of Interactive Multimedia Project:** Industry Level Project Work undertaken in a peer group setting, Learn problem solving and integration of different components of multimedia viz. image, graphics, audio, video & animation for development of multimedia applications using an appropriate authoring tool.	20
Total Hours		**180**

22. Certificate course in Revit (80 hrs)

Sl. No.	Topic	Minimum No of Hours
1	**Introduction, Create Grid and Layer**	01
	Practise of Foundation for grid making and draw Elevation for layer	01
2	**Column & bream drawing , create wall, and door-window placement.**	02
	Draw the column and beam form the note and place them in right position. Prepare a building plan showing the wall and place doors-windows in the right place.	04
3	**Building Design, Create Stair and Saft opening, copy & paste procedure.**	04
	Creating new design in projected space of building elevation Creating 3D models from various types of 2D stair drawings. Prepare saft opening. Paste a typical ground floor drawing on the first or above floor.	06
4	**Interior Lighting & Celling &**	02
	Project: Make a building plan and add interior stuff and paste in position. Make a building plan showing the details of the false ceiling. Make a building plan showing the details of interior and exterior lighting arrangements.	10
5	**3D Project Camera view adjustment:**	01
	Create multiple 3D views, Creating Camera views, and Creating Interior 3D views.	03
6	**Create a full steel structure**	04
	Create a full structural drawing (Foundation Plan, Column, Bream, Brace, Purlin, connector, Elevator, Elevation, section, stair) with details.	12
7	**Full MEP design:**	02
	M = Mechanical full ducting arrangement E = Electrical (Cable, conduit, DB, and various types of load arrangement and their place)	16

	P = Plumbing (Wastewater, rainwater) various types of water piping position and there.	
8	**Full Project Rendering**	02
	Project: Draw a Bangalow-type model building and decorate it with whatever you learn earlier, make it so realistic by using Enscape software.	08
9	**Place and component, Model place and print:**	02
THEROY/ LECTURE HOURS:		**20**
PRACTICAL/ TUTORIAL/ LECTURE HOURS:		**60**
TOTAL HOURS:		**80**

23. Course in Autodesk Inventor (80 Hrs.)

SL.NO	TOPIC	Minimum No of Hours
1	**Introduction to Autodesk Inventor and Create the Base Feature**	4
	→ Exercise: Fundamentals, Interface, Model Manipulation. → Creating a New Part File, Sketched Base Features, Primitive Base Features.	
2	**Sketching geometry for creating and editing sketches in the sketch environment to create part features.**	10
	→ Sketch Geometry, → Advanced Editing Tools, Rectangular Sketch Patterns Circular Sketch Patterns, Over-Dimensioned Sketches, Sketch Preferences. → Extruded Secondary Features, Revolved Secondary Features, Using Existing Geometry, Editing Sketched Secondary Features, 3D Grip Modification	
3	**Pick-place of dynamic objects by robot manipulator.**	14
	→ Edge Chamfer, Constant Fillets, Variable Fillets, Face Fillets, Full Round Fillets, Straight Holes, Threads, Editing Pick and Place features, Creation Sequence Work Planes, Work Axes, Work Points → Equations, Parameters, → Creating a Shelling a Face or Part, Shells, Ribs, Bend Part → Reordering Features, Inserting Features, Suppressing Features, Section Views, Design Views.	
4	**Combination of loft and sweep features.**	6
	→ Sketch Failure, Feature Failure → Sweep Features → Loft Cuts, Centre Line Lofts, Advanced Loft Options. → Manipulate Features Patterns, Circular Feature Patterns, Mirror Parts or Features, Mirror Parts and Mirror Features	
5	**Joint conflict in assembly with multiple Occurrences of the component.**	14

	→ Establishing Relationships, Controlling Relationships, Investigating Relationships, Changing Relationships → Constraints, Assembly Constraints, Content Centre, Assembly Browser, Saving Files → Assembling Components using Joints → Moving and Rotating Assembly Components, Suppressing Constraints, Component Display, Selection Options in Assemblies	
6	**Design presentation & animation with Assembly modelling**	5
	→ Measurement Tools, Model Properties → Exploded View Presentations	
7	**Assembly Tools, parts and features.**	6
	→ Replacing Components, Restructuring Components, Driving Constraints, Contact Solver, Interference, Error Recovery → Assembly Parts, Assembly Features → Create Virtual Components, Create a Bill of Materials	
8	**Assembly Bill of Materials (BOM)**	2
	→ How to create BOM in INVENTOR & how to get Automated BOM from INVENTOR	
9	**Top-down assembly detail Design for projects.**	14
	→ New Drawing Views, Manipulating Views → Dimensions, Drawing Sheets, Parts List, Balloons, Styles and Standards, Hatching → Text, Symbols, Hole and Thread Notes, Chamfer Notes, Centre Marks and Centre Lines, Hole Tables, Revision Tables and Tags.	
10	**edit the view annotation style.**	5
	→ Application Options, Document Settings, File Properties, Changing Part Units, Command Customization.	
	Theory / Lecture Hours:	**20**
	Practical / Tutorial / Lecture Hours:	**60**
	Total Hours:	**80**

24. Certificate Course in Power BI and Tableau (30 Hrs.)

Sl No.	Topics	Duration (In Hrs.)
1	**Power BI** **Module 1: Introduction to Power BI** Overview of Power BI ecosystem and its components (Desktop, Service, Mobile); Installation and system setup of Power BI Desktop; Understanding the Power BI interface – Ribbon, Canvas, Visualizations pane and Fields pane; Navigating Report View, Data View and Model View; Understanding the workflow from data to dashboard.	2
2	**Module 2: Connecting to Data Sources & Data Preparation** **Connecting to Data Sources –** Importing data from Excel, CSV, Text files, SQL Server, Web and other sources; Understanding data formats and data types; Configuring manual and scheduled data refresh settings. **Data Transformation with Power Query –** Introduction to Power Query Editor; Applying transformations – removing duplicates, splitting columns, merging queries; Handling missing values, null entries and data cleaning techniques; Appending and merging tables. **Data Modeling & Relationships –** Building table relationships in Model View; Understanding one-to-many and many-to-many relationships; Setting up primary and foreign keys; Introduction to star schema and data modeling best practices.	2
3	**Module 3: DAX (Data Analysis Expressions)** **DAX Fundamentals –** DAX syntax, operators and order of evaluation; Understanding row context vs. filter context; Overview of DAX function categories. **Calculated Columns & Measures –** Creating calculated columns in tables; Writing basic measures using SUM, AVERAGE, COUNT, MIN, MAX, DISTINCTCOUNT; Difference between calculated columns and measures.	2
4	**Module 4: Data Visualization Basics** Bar charts, Column charts, Line charts and Area charts; Cards, Multi-row Cards and KPI visuals; Gauge charts and progress indicators; Pie charts, Doughnut charts and Treemap charts; Tables and Matrix visuals; Scatter plots and Bubble charts; Map visuals – Filled Map and Shape Map; Waterfall charts and Ribbon charts; Choosing the right visual for the right data story; Formatting visuals – titles, data labels, colors, legends and tooltips.	2
5	**Module 5: Interactive Dashboards** **Slicers & Filters –** Adding and configuring Slicer visuals (list, dropdown, date range); Using the Filters pane – Visual, Page and Report level filters; Sync slicers across report pages. **Interactivity Features –** Cross-filtering and cross-highlighting between visuals; Configuring visual interactions; Drill-through pages for detailed analysis; Drill-down and drill-up in hierarchies; Bookmarks and report page navigation; Adding buttons, shapes and images for navigation; Tooltips pages for custom hover details.	2

6	**Module 6: Insights & AI Integration** **AI-Powered Visuals –** Key Influencers visual for finding key drivers; Decomposition Tree for root cause analysis; Smart Narratives for automated text summaries.	2
7	**Module 7: Customization & Formatting** Setting up report canvas size and layout (16:9, A4, Phone view); Adding corporate branding – logos, background images, color palettes; Conditional formatting in tables and matrix visuals – color scales, data bars, icons; Custom tooltips using tooltip pages,Page-level and report-level background formatting; Aligning.	2
8	**Module 8: Final Dashboard Project** Introduction to a real-world dataset (Sales / HR / Finance); End-to-end data import, cleaning and transformation using Power Query; Building required DAX measures and calculated columns for the dataset; Designing a complete multi-page interactive dashboard with slicers, drill-through and bookmarks; Applying themes and branding to the dashboard; Publishing the report to Power BI Service; Sharing reports and setting access permissions; Creating a Dashboard in Power BI Service by pinning visuals; Introduction to Power BI Mobile view.	2
9	Tableau **Module 1: Data Connections** Introduction to Tableau and its ecosystem (Tableau Desktop, Public, Server, Online); Connecting to Excel workbooks and Text/CSV files; Connecting to SQL Server databases and Analysis Services (OLAP cubes); Understanding Tableau's Data Source page and Live vs. Extract connections; Creating and managing Hierarchies in data; Configuring table Joins – Inner, Left, Right and Full Outer joins; Union of tables; Introduction to cross-database joins.	2
10	**Module 2: Data Grouping & Aggregation** Creating Groups to combine dimension members; Adding Aliases and Labels to data fields; Organizing fields into Folders for easier navigation; Applying Sorting – manual, alphabetical and field-based sorting; Adding Subtotals and Grand Totals to views; Understanding Aggregation types – SUM, AVG, COUNT, COUNTD, MIN, MAX; Changing aggregation of measures in the view.	2
11	**Module 3: Charts & Visualizations** Area charts for trend and part-to-whole analysis; Bar charts – horizontal and vertical, stacked and side-by-side; Box and Whisker Plots for statistical distribution; Bubble charts for three-variable relationships; Circle views for categorical comparisons; Funnel charts for pipeline and conversion analysis; Histogram charts for frequency distribution; Line charts for time-series trends; Scatter plots for correlation analysis; Heat maps and Treemaps; Packed Bubble charts; Symbol maps and Filled maps for geographic analysis; Dual-axis charts for combining two measures; Show Me panel and best practices for visual selection.	2
12	**Module 4: Advanced Reports** **Dual Axis Reports –** Creating Dual Axis charts by synchronizing two axes; Combining different chart types on a dual axis (bar + line); Blended Axis reports where two measures share the same axis scale.	2

	Individual Axis Reports – Displaying multiple measures on individual axes using Measure Names and Measure Values. **Reference Lines & Bands –** Adding Reference Lines at constant values, field averages or parameter values; Adding Reference Bands to highlight ranges; Distribution bands and box plot reference lines; Adding trend lines and forecast lines to time-series views.	
13	**Module 5: Calculations & Filters** **Calculated Fields –** Creating basic calculated fields using arithmetic, string and date functions; Understanding the calculation editor and syntax; Creating Boolean and conditional calculations using IF/IIF/CASE statements. **Ranking Calculations –** Basic approach to calculate Rank using the RANK() table calculation function; Advanced approach to calculate Rank using RANK_UNIQUE(), RANK_DENSE(), RANK_MODIFIED(); Rank within partitions using Compute Using options. **Running Total & Table Calculations –** Calculating Running Total using RUNNING_SUM(); Understanding table calculation scope – Table Across, Table Down, Pane, Cell; Using WINDOW_SUM(), WINDOW_AVG(), WINDOW_MAX() for windowed calculations; Percent of Total calculations; Difference and Percent Difference calculations. **Filters –** Understanding the filter order of operations in Tableau; Dimension Filters, Measure Filters and Date Filters; Quick Filters and their customization; Context Filters for improving performance; Table Calculation Filters; Using Parameters with filters for dynamic filtering.	2
14	**Module 6: Dashboards** **Creating Dashboards –** Dashboard workspace and layout containers (Horizontal, Vertical, Tiled vs. Floating); Adding sheets, images, text boxes and web objects to dashboards; Setting dashboard size – Fixed, Automatic and Range; Device-specific dashboard layouts (Desktop, Tablet, Phone). **Formatting Dashboards –** Applying consistent color themes and fonts across a dashboard; Using dashboard Actions – Filter Actions, Highlight Actions and URL Actions for interactivity; Adding navigation buttons between dashboards; Using Legend as a filter; Tooltip customization; Creating Story Points to present a narrative of dashboards.	2
15	**Module 8: Final Dashboard Project** Introduction to a real-world dataset (Sales / Superstore / Finance); End-to-end data connection, joining and preparation; Building required calculated fields, table calculations and filters for the dataset; Designing a complete multi-dashboard project with actions, filters and navigation; Applying consistent formatting, themes and branding;	2
	Total:	30

Annexure –II

APPLICATION FORM

1	Training Centre Name	
2	Training Centre Location	District: City/Village: Address: Contact Person Mobile No:
3	Full details of Centre In-Charge a) Name b) Centre Address c) Telephone No. d) Mobile No. e) E-Mail: f) Fax No. g) NIELIT Accreditation No: /ESDMTPID: /NIELIT Facilitation No: /WIL Registration No: /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

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. No. 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: **NIELIT/KOL/2026-27/1**

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