Skill Assessment and Certification byNIELIT Kolkata for students trained byInstitutesin WestBengal

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SkillAssessmentandCertificationaccordingtotheskillofthestudent

Objective: NIELIT Kolkata invites interested institutes to conduct Training in different SkillDevelopment Courses as per information attached herewith. NIELIT Kolkata will maneuver theentire process through registration, evaluation and certification. The details of the roles andresponsibilitiesofthe stakeholdersareasfollows:

- **Stakeholder1:NIELITKolkata**

  Rolesandresponsibility-Registration,EvaluationandCertification

- **Stakeholder2:**NIELITaccredited,Affiliated,ESDMTrainingPartner,WebelTrainingPartner and CSC, Institutes involved in IT park project, Institutes having specialization in advance areas like Blockchain, IoT, Multimedia,Data Analytics, Business Analytics,Training on Medical Equipment Repairing and Maintenance,AR-VR with minimum2 years of collaboration with Industry in the same field. Charitable Trusts/Organizations who are involved in skill development activities are also eligible to apply.

ResponsibilitiesofStakeHolder-1

Registration: Students will be registered by the institutes with NIELIT Kolkata as per guidelineprovided by the NIELIT Kolkata from time to time. For registration – appropriate RegistrationFees+GSTpercoursewill be charged byNIELITKolkata.

Skillassessmentprocess: TheSkillwillbejudgedbyNIELITKolkatathroughitsownmechanism. Key skill will be evaluated through practical and viva examination. Practical will bea combination of different testing of the knowledge they have acquired while undergoing thetraining program. The assessment will also reflect the market demand so that a demand versusavailability may be mapped. For Examination and Certification – appropriate Examination fees +GSTper paper will be charged byNIELIT Kolkata.

Certification: Certificates will be issued by NIELIT Kolkata to successful (passed) candidatesonly. In case if a candidate fails to clear the examination he can reappear by making the paymentforeach appearance.

ResponsibilitiesofStakeHolder-2

Mobilization,Registration and Admission of the students – Concerned Institute/individualwill mobilize andregister studentswith NIELIT Kolkata as per guideline provided by theNIELIT Kolkata from time to time. Suitable training fees to be collected by the institutes from the candidates. For eligibilityofthecandidatesandcoursefees in differentcoursesreferTable1.

Training Conduction: The training will be provided by the identified/selected institutes for thecoursesspecifiedbyNIELITKolkata.Minimumnoofcandidatesrequiredforconductingexamination is minimum 50 or as decided by NIELIT Kolkata from case to case basis for institutes located within 200 km and min 100 for instituteslocatedabove200 km

FacultyDevelopmentprogram:NIELITKolkatawillassessthequalitiesofthefacultiesdeployed   or to be deployed with respect to the courses to be implemented. In case the facultiesare not up to the required standards but can be groomed than they will be trained by NIELITKolkataasper convenienceof both thestakeholders.

Infrastructure:
    i) Hardware:
        a) Minimum 10 number of Computer Systems (for a batch size ofminimum 20 and will increase proportionately) having latestconfigurations(DualCoreandabove,Minimumof1GBRAM,20GB Freeharddiskspace)orappropriateinfrastructure asperthe coursebeingoffered.

b) InternetConnectivity:1Mbpsline/BroadBand
c) Projector:Minimum1
d) Printer:Minimum1Printer
e) Scanner:Atleast1
f) UPSPowersupply–adequateaspersystemrequirement
g) Webcam,Speaker

ii) Software:
a) Windows 7 or Above
b) Antivirus
c) TallyPackage
d) AUTOCADPackage
e) MultimediaCourserelatedSoftware
f) Anyother softwarerelated to thecourse

FacultyMemberquality:

Qualityoffaculties would beaccordingto thefollowing

ComputerOrientedCourses–

a) Faculty – Science Graduate with A Level cleared / B Level / MCA /B.E/ B.Tech / M.Sc in Computer Science / M.Sc with Diploma onComputerCoursesorhigher,
b) B.Com/M.Comcandidateswithexperiencein teachingFinancial AccountingrelatedSubject
c) Relevant Experience/specializationinrespectivesubjectis required

ElectronicsOrientedCourses –

a) Faculty - B.E / B.Tech/ Diploma/ ITI in Computer Science, ElectricalorElectronics &communication, InstrumentationforHardwareCourse
b) Relevant Experience/specialization inrespectivesubject is required

LabInstructor –

a)Graduation/Diplomain ComputerScience,ElectricalorElectronics&communication,Instrumentation or higher with relevant experience.

Table-1

SL.NO	COURSENAME	Course Duration in hrs	Month wise duration *	MinEligibility (Appearing/Appeared)	Registration Fees without GST	Examination Fees Without GST
1	CertificateCoursein Advance JAVA	80	2-3	XII	500	500
2	CertificateCoursein"C" Language	80	2-3	XII	500	500
3	CertificateCourseinC++	80	2-3	XII	500	500
4	Certificate Coursein Auto-CAD	80	2-3	ITI/ Polytechnic/ HS/BE/ B.Tech/ M.Tech	500	500
5	CertificateCoursein DesktopPublishing.	80	2-3	XII	500	500
6	Certificate CourseinDOTNETTechnology(WithASP, C#)	120	3-4	XII	500	500
7	Certificate Course inFinancialAccountingwith GST.	80	2-3	XII	500	500
8	CertificateCourseinOffice Tools	40	1-2	VIII	250	250
9	DiplomaHardwareand Networking.	120	3-4	XII/10 + ITI	500	500
10	Diploma inComputer Application	200	4-6	XII	500	500
11	CertificateCoursein WebsiteDesigning.	80	2-3	XII	500	500
12	Certificate Course in SoftSkillandCommunicative English	40	1-2	X	250	250
13	CertificateCourseinOracle DBA	80	2-3	XII	500	500
14	CertificateCourseinLINUX.	80	2-3	XII	500	500
15	Certificate Course inAdvanceDevelopment UsingPHP	40	1-2	XII	250	250
16	CertificateCourseinCourse in CoreJava	40	1-2	XII	250	250

17	CertificateCoursein2D AnimationusingFlash	40	1-2	XII	250	250
18	CertificateCourseinPC Hardware&Networking	40	1-2	X	250	250
19	Certificate Course in CAD,Draftingand3DModelling	40	1-2	ITI/ Polytechnic/ BE/B .Tech/ M.Tech	250	250
20	BasicDataScience using Python	60	2-3	XII	500	500
21	Certificate course in CyberSecurity	40	1-2	XII	250	250
22	CertificatecourseinPHP andMySQL	80	2-3	XII	500	500
23	Certificate In Graphic Design	156	4-6	XII	500	500
24	Certificate In Video Editing & Post Production	156	4-6	XII	500	500
25	Certificate In 2D Digital Animation	156	4-6	XII	500	500
26	Diploma in Graphics, 2D Animation & Post Production(3 Papers (Theory and Practicals)) @ Rs1000 + Project evaluation fees @ Rs 2000/-)	312	10-12	XII	500	5000

*Month wise duration Table

SNo	Hours	Proposed Duration in Months
01	<=40 HRS	1-2
02	>40 and <=80	2-3
03	>80 and <=120	3-4
04	>120 and <=200	4-6
05	>200 and <=320	10-12

1. **CertificateCourseinAdvanceJAVA(80)**

S.No	Topic	MinimumNo.ofHours
1	Introductionto CoreJava	10
2	Introductionto J2EE	06
3	SQL &JDBC	20
4	BeansinServlets	14
5	Introductiontostrutsframework	10
6	JSP	10
7	Hibernation	10
	Theory/ LectureHours:	30
	Practical/Tutorial/LectureHours:	50
	TotalHours:	80

2. **CertificateCourseinCLanguage(80)**

S.No	Topic	MinimumNo.ofHours
1	Introductionto C	02
2	Datatypes &operator	06
3	Logical& loopingconstructs	15
4	Functions	06
5	Arrays&Pointers	25
6	Structures&union	10
7	Standardlibrary&headerfiles	06
8	FileHandlingOperations	10
	Theory/ LectureHours:	40
	Practical/Tutorial/LectureHours:	40
	TotalHours:	80

3. **CertificateCourseinC++(80)**

S.No	Topic	MinimumNo.ofHours
1	Introductionto OOP'sconcept	02

2	Datatypes. Operator&Logical/looping	05
3	Functionsandarrays	15
4	Classes&objects	10
5	Inheritance	10
6	Polymorphism	10
7	Operatoroverloading	05
8	Functionoverloading	05
9	Exceptionhandling	05
10	FileHandlingOperations	08
11	Introductionto Template	05
Theory/ LectureHours:		40
Practical/Tutorial/LectureHours:		40
TotalHours:		80

4. **CertificateCourseinAuto-Cad(80)**

S.No	Topic	MinimumNo.ofHours
1	IntroductiontoCoordinatesystems	16
2	2D drawing&editing	20
3	3D drawing&editing	20
4	Layers,blocks,Xrefs,rendering	12
5	Solidmodeling	12
	Theory/ LectureHours:	30
	Practical/Tutorial/Lecture Hours:	50
	TotalHours:	80

5. **CertificateCourseinDESKTOPPUBLISHING(80)**

S.No	Topic	MinimumNo.ofHours
1.	MSpaint	10
2.	Photoshop	24
3.	Pagemaker	12
4.	Coraldraw	24
5.	Projectwork	10
	Theory/LectureHours:	25
	Practical/Tutorial/LectureHours:	55
	TotalHours:	80

6. **CertificateCourseinDOTNET TECHNOLOGY(WITHASP,C#)[120]**

S.No	Topic	MinimumNo.ofHours
1.	DotNetframework	04
2.	UsingASP.net andC# ,Reviews	06
3.	OOPsconceptusingC#	12
4.	ControlsinASP.Net&ASP.Netobjects	16
5.	Masterpages,Themes, Skins,Usercontrol,AjaxControlToolkit	07
6.	Validationcontrols& security	07

7.	Navigationtools	07
8.	Database concepts	05
9.	Datacontrols,classes,objects,DLL's	12
10.	Publishing& DeployingWebApp	04
11.	Membershipservice	06
12.	Advanceconcepts-LinQ	04
13.	Projects	30
Theory/ LectureHours:		50
Practical/Tutorial/Lecture Hours:		70
TotalHours:		120

7. CertificateCourseinFINANCIALACCOUNTINGwithGST.(80)

S.No	Topic	MinimumNo.ofHours
1	AdvanceFinancialAccounting:- Financial Accounting (Definition, Concept, Process Voucher, Journal& Ledger,DoubleEntry System). Classification of A/Cs (Personal, Real & Nominal) and Golden RulesofAccounting.Capital& RevenueExpenditure,Depreciation. Reports (Trial Balance, Statement of Profit & Loss/ Receipts &Payments andBalanceSheet. Day Books (Purchase & Sale), Cash/ Bank Book, A/Cs Receivable &Payable,Debit Note, CreditNote,BankReconciliation.	04
2	TallyERP9:- AccountingSoftwares(ERP/ SAP,Selfdevelopedsoftwareusedbyorganizations,TallyERP9,etc.). Tally – Introduction, System Requirement, Main Features, CompanyCreation, Group Creation, Ledger Creation, Voucher entry, ViewReports–Theory&Practical. Receipts&PaymentsVoucher,Purchase(inwardsupply)Voucher/ Register & Sales (outward supply) Voucher/ Register, JournalVoucher/ Register, Bill adjustment method & Outstandingstatement,Credit period–Theory &Practical.	16
	OpeningBalance& OpeningBalance Sheet,CreationofAdminand	02

	non-adminusers,PasswordPolicy – Theory&Practical. ConceptofFinancial& Assessmentyear,ITAct &Rules.	
3	TDS/ TCS under Income Tax Act & GST (Concept, Payments,Returns/ e-filing (Theory & Practical using Tally ERP 9) (Form 16,16A,26AS, 26Q,24Q)	04
4	GST (Concept, Act/ Rules, over view) CGST, SGST, IGST, UTGST,Composition Tax, Reverse Charge Mechanism ITC, Registration, TaxPayments, Returns, Hands-onTraining.	16
5	CostingusingTally(Theory&Practical):- ConceptofCostCentre,CostUnit&CostCategory Budget & Budgetary Control, Standard Costing & Variance Analysis,Job&ContractCosting Data Import & Export, Change Company, Backup, Restore, Yearendingetc.	06
6	SalesInvoice&InventoryusingTally:- Sales Invoice with singly/ multiple items, POS Billing, StockSummary, Stock Category creation and Stock Transfer, GodownCreation, ABC analysis, Stock Journal, Physical Verification of Stock,ManufacturingInventory.	10
7	Payroll (PF, ESI, P. Tax, Income Tax, Bonus, Gratuity, LeaveEncashmentandComponents ofsalary& allowances).	04
8	Ratio Analysis(Theory&Practical)	02
9	Revisionof TallyPackage	08
10	RevisionofGST	04
11	How to appear interview in different organization as AccountsProfessional	02
12	Interactive Session& Certificationdistribution	02
	Theory/ LectureHours:	40
	Practical/Tutorial/LectureHours:	40
	TotalHours:	80

8.   **CertificateCourseinOfficeTools(40)**

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S.No	Topic	MinimumNo.ofHours
1	KnowingComputer	02
2	OperatingComputerusingGUIbasedOS	04
3	WordProcessing	12
4	SpreadSheet	12
5	CommunicatingusingtheInternet	02
6	www &Web Browsers	02.
7	Communication& Collaboration	04
8	MakingSmallPresentation	02.
Theory/ LectureHours:		20.
Practical/Tutorial/LectureHours:		20
TotalHours:		40

9. **DiplomaHardwareandNetworking(120)**

S.No	Topic	MinimumNo.ofHours
	Basicofcomputer,I/Odevices	6
	Monitors(CRT/LCD/LED),differenttypesofmemory	10
	HardDisk(SATA,USB,SolidState)	10
	Studyofdifferenttypes ofMotherBoard	6
	StudyofdifferentBuses	4
	I/OPorts,graphiccards	6
	InstallationofOS/printer/modem/scanner	20
	BIOSsetup	6
	Recovery&Troubleshooting	20
	Preventivemaintenance&Anti-Virus	10
	NetworkingFundamentals	22
Theory/ LectureHours:		40

	Practical/Tutorial/LectureHours:	80
	TotalHours:	120

10. DIPLOMAINCOMPUTERAPPLICATION(250)

S.No	Topic	MinimumNo.ofHours
1	InformationTechnologyandOfficeTools- Fundamentals of Computer,Word processing concepts: saving, closing, Opening an existingdocument, Selecting text, Editing text, Finding and replacing text,printing documents, Creating and Printing Merged Documents,CharacterandParagraphFormatting Spreadsheet Concepts, Creating, Saving and Editing a Workbook,Inserting, Deleting Work Sheets, entering data in a cell / formulaCopying and Moving from selected cells, handling Basic Formulae &Functions, Formatting Cells – changing data alignment, changingdate, number, character or currency format, changing font, addingborders andcolors Creating,OpeningandSavingPresentations,CreatingtheLookof YourPresentation,WorkinginDifferent Views,WorkingwithSlides	30 .
2	Problemsolvingandprogramming – The Basic Model of Computation, Programming Languages, DataTypes in C, Basic Input/output statement, Simple 'C' programs,Switch statement, Conditions, Relational Operators, if-elsestatement, Loops: while loop, do while, for loop, Arrays, Structure,Conceptoffunction, Pointer.	30.
3	SystemsAnalysisandDesign - Introduction to Systems, Development Life Cycle (SDLC). Variousphases of SDLC: Study Analysis, Design, Development,Implementation, Maintenance; Documentation: Principles ofSystems Documentation, Types of documentation and theirimportance, Enforcing documentation discipline in an organizationModern Methods for determining system requirements: JointApplication, Development Program, Prototyping, Business ProcessRe-engineering, Process Modeling, Logical and physical design, Conceptual DataModeling: Entity /Relationship Analysis, Entity-RelationshipModeling,ERDs andDFDs,Concepts ofNormalization.Process Description:StructuredEnglish,DecisionTree,Table;Documentatio n:DataDictionary	20.
	IntroductiontoDBMS Whatisdatabase?Whydatabase? ArchitectureofDatabaseManagementSystem,AdvantagesofDBMS	30

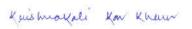|		
	Unit–II DataBaseTables Tables- IntroductiontoTables,DifferentWaysofcreatingatable,Guidelinesforna mingfields, ControlsandObjects, Createatable usingtheTableWizard, DesigningaTable-CreateatablefromscratchusingDesignview, SettingPrimaryKeys,ModifyingtheTableDesign- Toinsertthefieldwithinthetable, Renameafieldnameinatable, DeletingFields,MovingFields,ChangingaFieldSize,Savinga Table, SortingandFilteringDatainaDatasheet-Quick-SortFeature Unit–III QueryBasicsandSQL QueryBasics-WhatisaQuery?UsageofQueries,TypesofQueries, StepsforCreatingaQuery, RemovingaField,InsertingaField,HidingFields, WorkingwithActionQueries	
5	InternetConceptsandWebDesign– Network definition, Common terminologies: LAN, WAN, Node,Host, Workstation, Network devices, Network Components: Severs,Clients, Communication Media, Types of network: Peer to Peer,Clients Server, Addressing in Internet: understanding the InternetProtocol Address. Network protocols, Network media, Networktopologies:Bust, star andring, Ethernet, Structure of an Email – Email Address, Email Header, Body andAttachments, Overview of Internet Security, Firewalls, InternetSecurity HTML page structure, HTML Text, HTML links, HTML documenttables	30.
6	SoftSkillsandFinancialLiteracyforBankingSkillwithApplication Unit–I SoftSkillsandCommunicativeEnglish RefresherclassesonEnglishGrammarandVocabulary, ConnectedSpeech: Wordstressandsentencestress, Readingfromtexts,computeraidedteachingandlearningexercises, Entry behaviour evaluation, Introductory Module onPersonality, Presentationandspeechgivingtechniques, ModuleonOfficeEtiquette, ModuleonCustomerCare, TelephonehandlingTechniques, ModuleonActiveListening, ModuleonProductfeaturesandbenefits, ModuleonobjectionhandlingandquestioningTechniques, PowerpointPresentation, ModuleonTelemarketingandProspecting, ModuleonComplainhandlingandhandlingofdifficultpeople, GroupDiscussion, ConductingMockinterviews, Interactivesessions Unit–IIFinancialLiteracyforBankingSchemeandApplications Whysavingsareneeded, Whysave in a bank, Bankingproducts- ATMcard, BankingInstruments-Cheque, DemandDraft(DD),BankingServicesDeliveryChannels, KnowYourCustomer(KYC), Openingof bankaccountand	30.

	documentsrequired, Typesof bankaccounts, Bank'sservicesincludingremittances, Mobilebanking PasswordsecurityandATMwithdrawal	
6	Project	30.
	Theory/ LectureHours:	100 .
	Practical/Tutorial/LectureHours:	100.
	TotalHours:	200.

11. CertificateCourseinWEBDESIGN(40)

S.No	Topic	MinimumNo.ofHours
1.	IntroductiontoInternet&Web	02
2.	HTML	06
3.	DHTML	02
4.	JavaScript	04
5.	Flash	06
6.	Photoshop	06
7.	CSS	04
8.	ProjectonWebsiteDevelopment	10
	Theory/ LectureHours:	40
	Practical/Tutorial/LectureHours:	40
	TotalHours:	80

12. CertificateCourseinSOFTSKILLandCommunicativeEnglish(40)

S.No	Topic	Minimum No. ofHours
1	Brief introduction to: Spoken variety of English, the two chief spokenvarieties-British and American; Indian English and idea of a neutralaccent.	03
2	Consonant sounds, Vowel sounds in English: Pure vowels (Long vowelsandshortvowels)PhoneticSymbols,	03
3	RefresherclassesonEnglishGrammar andVocabulary	03
4	ConnectedSpeech:Wordstressandsentence stress	04
5	Readingfromtexts,computeraidedteachingandlearningexercises	02
6	Entry behaviour evaluation, Introductory Module on PersonalityDevelopment	03
7	Presentationandspeechgivingtechniques	01
8	ModuleonOfficeEtiquette	01
9	ModuleonCustomerCare	02
10	TelephonehandlingTechniques	02
11	ModuleonActiveListening	01
12	ModuleonProduct featuresandbenefits	01
13	Moduleoncallstructure	01
14	ModuleonobjectionhandlingandquestioningTechniques	01
15	PowerpointPresentation	01
16	ModuleonTelemarketingandProspecting	01
17	ModuleonComplainhandlingandhandlingofdifficultpeople	01
18	GroupDiscussion	01
19	Lessonon'Howto Face Interview', BodyLanguage,	04
20	DebatingCompetition	01
21	Conductionofrole-plays	01
22	ConductingMockinterviews	01
23	Interactivesessions	01
	TotalHours:	40

13. CertificateCourseinOracleDBA(80)

S.No	Topic	MinimumNo.ofHours
1.	Oraclearchitecture	02
2.	Databaseadministrationtools	03
3.	Oracleinstance	03
4.	Creatingadatabase	02
5.	Datadictionary&views	02
6.	Controlfiles	02
7.	Logfiles	02
8.	Tablespace	03
9.	Storage,structure&relationship	04
10.	Managingundo data	04
11.	Managingtables&index	02
12.	Maintainingdataintegrity	02
13.	Managingpasswordsecurity&resources	03
14.	Users&privileges	03
15.	Managingrules	02
16.	Auditing&loadingdata	01
Theory/ LectureHours:		40
Practical/Tutorial/LectureHours:		40
TotalHours:		80

14. CertificateCourseinLINUX(80)

S.No	Topic	MinimumNo.ofHours
1.	LinuxOSArchitectureandCommands	4
2.	FilterandAdvancedCommand	4
3.	ProcessManagement	6
4.	ShellandAWKProgramming	8
5.	FilesystemAdministration	6
6.	UserAdministration	8

S.No	Topic	MinimumNo.ofHours
7.	Introductiontomailandfile server	4
	Theory/ LectureHours:	40
	Practical/Tutorial/LectureHours:	40
	TotalHours:	80

15. CertificateCourseinAdvanceDevelopmentUsingPHP(40)

S.No	Topic	MinimumNo.ofHours
1	IntroductiontoPHP	10
2	IntroductiontoAjax	06
3	OOPSConcept inPHP	03
4	ConceptofMYSQLdatabase	10
5	DatabaseProgrammingusingPHPandMySQL	06
6	ConceptofCMS	05
	Theory/ LectureHours:	20
	Practical/Tutorial/LectureHours:	20
	TotalHours:	40

16. CertificateCourseinCourseinCoreJava(40)

S.No	Topic	MinimumNo.ofHours
1	IntroductiontoOOP'sClassesandObjects	07
2	Packages&interfaces	03
3	Exceptionhandling	03
4	Multithreading	05
5	Applets & AWTControls&Swing	10
6	SQL &JDBC	10
7	JavaI/O	02

	Theory/ LectureHours:	15
	Practical/Tutorial/LectureHours:	25
	TotalHours:	40

17. CertificateCoursein2DAnimationusingFlash(40)

S.No	Topic	MinimumNo.ofHours
1	Introductionto2DanimationusingFlash	01
2	Vectorgraphics,Flashlayout&interface	01
3	Shapes &objects	04
4	Transformationtools	03
5	Colors,palettes,text	03
6	Frame,keyframes,layering	03
7	Sounds&video	03
8	Shapetween,symbols	03
9	Motiontween,masking	04
10	Characterdesign&characteranimation	02
11	Actionscript	06
12	Publishing&exportingflashfiles	01
13	Projectwork	06
	Theory/ LectureHours:	12
	Practical/Tutorial/LectureHours:	28
	TotalHours:	40

18. CertificateCourseinPCHardware& Networking(40)

S.No	Topic	MinimumNo.ofHours
1	IntroductiontoPCHardware	04
2	Hardwareinstallationandconfiguration	04
3	PCdebugging, troubleshootingandMaintenance	04

4	SoftwareinstallationandConfiguration	04
5	NetworkingBasicandConfiguration	04
Theory/ LectureHours:		10
Practical/Tutorial/LectureHours:		30
TotalHours:		40

19. CertificateCourseinCAD,Draftingand3DModelling(40)

S.No	Topic	MinimumNo.ofHours
1	Limits,units,Line,O-snap,Polygon, Arc, Circle ,Elipse,Rectangle ,Array ,Move,Copy.	02
2	Rotate , Offset,Revisioncloud , Trim , Stretch , Break , Joint ,SelectionMethod	02
3	Mirror,Solid, Scale,Extend,Explode ,Fillet,Chamfer,Donut,Layer,Match Properties,Text,Multi Text.	02
4	Block, Insert, Dynamic Block , W Block , Attribute , ExternalReference ,Hatch ,Gradient .	02
5	Table, Align , Boundary , Divide , Measure , Point , Region ,Polyline .	02
6	Layout Management, Plotting, Dimension , Properties , MatchProperties,Edit, Editwithgrips .	02
7	Polyline ,Lengthen, spline	02
8	Projectofa2DDrawing	02
9	Draftsetting,Isolate,DifferentshapeinIsometric	02
10	Projectdrawingofanisometricmodel.	02
11	3D Box, cylinder , Cone , Pyramid , Torus , Extrude , UCS setting ,Region ,Subtract	02
12	Loft, loft reference to guide curve, Sweep, Revolve, Union,Intersect,Polysulfide.	02
13	Planar, surface, Press/ Pull, Slice, Thicken, Smooth object, ExtractFace, Imprint.	02
14	Extrudeface,Taperface,MoveFace,CopyFace,ColorFace,Shell.	02
15	Helix,Align,Array,Marrow,Fillet, Chamfer,MoveGizmo.	02
16	Meshrevolves,Meshedge,Surface,Ruledsurface,Tabulate	02

	Surface.	
17	Convert to solid or surface, material input, Render, Sky off-on, WalkThrough.	02
18	Project	02
19	Project	02
20	Project	02
Theory/ LectureHours:		10
Practical/Tutorial/LectureHours:		30
TotalHours:		40

20. BasicDataScienceusingPython(60)

S. No	Topic	MinimumNo .ofHours
1	IntroductiontoPython	2
2	Variable & Data Types , Operator & Default Parameters,ArithmeticOperator	2
3	Stings,Lists,Dictionaries,Tuples,Sets,Boolean, Loopsandoperators	10
4	Methods and Python documentation, Functions inPython,*argsand**kwargs, Introduction,Attributesand class keyword, Class object attributes andmethods, Inheritanceandpolymorphism,Special methods.	
5	PythonforDataAnalysisusingNumpy	4
6	PythonforDataAnalysis usingPandas	3
7	Data VisualizationwithMatplotlib	3
8	DataVisualizationwithSeaborn	4

9	**Regression:**Simple Linear Regression: Intuition andstepwise implementation in Python, Multiple LinearRegression:Intuition,PolynomialRegression:Intuitionand stepwiseimplementationinPython,SupportVectorMachine:IntuitionandstepwiseimplementationinPython,DecisionTreeRegression:Intuitionandstepwiseimplementation inPython,RandomForestRegression:Intuitionand	12
	stepwiseimplementationinPython	
10	**Classification:**Logisticregression:IntuitionandstepwiseimplementationinPython,K-NearestNeighbors:IntuitionandstepwiseimplementationinPython,Support VectorMachine:Intuition andstepwise implementationinPython	12
11	**Clustering:**K-meansclusteringandHierarchicalclustering.	8
	Practical/Tutorial/LectureHours:	60
	TotalHours:	60

21.   CyberSecurity(80)

S. No	Topic	MinimumNo.ofHours
1	IntroductiontoNetworking	2
2	Routing&SwitchingwithBasicServerAdministration	
3	IntroductiontoEthicalHacking	2
4	Scanning	2
5	Enumeration	2
6	WindowsHacking(Windows7 ,10)	4
7	LinuxHacking	4
8	IntroductiontoPenetrationTesting	6
9	IntroductiontoISMS27001	6
10	IDS,IPS,Honeypot	6
11	HowtoCreateHackingToolsusingPython	6

	Practical/Tutorial/LectureHours:	40
	TotalHours:	40

22. CertificatecourseinPHPandMySQL(80)

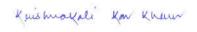| SI No.	Topics	TheoryHours	PRACTICAL Hours
1	What is a Scripting Language?Programming Language VsScripting Language, What does PHP stand for? Why usePHP?PHP FileExtensions.	2	
2	How to Download & Install XAMPP &NetBeans: PHPTutorial What is XAMPP?Why use XAMPP?How toDownload and Install XAMPPBasic Web serverconfigurationXAMPP Control PanelConfigure XAMPPWhatisthePHPIDE? IntroductiontoNetbeansIDE	2	2
3	Introduction to PHP : Evaluation of PhpBasicSyntax Defining variable and constantPhpData type OperatorandExpression	2	4
4	Handling Html Form With PhpCapturing Form DataDealingwith Multi-valuefiled Generating File uploaded formRedirectingaformaftersubmissi on	2	4
5	DECISIONS AND LOOPMaking DecisionsDoing Repetitive task with loopingMixing Decisions and looping with HtmlPHP If…Else…Elseif PHP Switch PHP While LoopsPHP ForLoops	2	6
6	FUNCTION What is a functionDefinea function Call by value and Call by referenceRecursive function	2	6
7	STRINGCreatingandaccessingStringS earching & Replacing StringFormattingString StringRelatedLibrary function	2	2

8	ARRAYAnatomyofanArray Creating index based and Associative arrayAccessingarray Element LoopingwithIndexbasedarray Looping with associative array using each() and foreach()Some usefulLibraryfunction	2	4
9	WORKINGWITHFILEANDDIRECTORIES:Understanding file&directory Openingandclosingafile Coping ,renaming and deleting a fileWorkingwith directories FileUploading&Downloading	2	8
10	STATE MANAGEMENT Using query string(URL rewriting)UsingHidden field Using cookiesUsing session	2	4
11	String matching with regular expression :What is regularexpression Pattern matching in PhpReplacingtext SplittingastringwithaRegularExpression	2	4
12	Database Connectivity with MySql:Introduction toRDBMS ConnectionwithMySqlDatabase Performing basic database operation(DML) (Insert,Delete,Update, Select) Setting query parameterExecutingque ry	4	10
	Totalhours:	26	54

23. **Certificate in Graphics Design (156 hrs)**

Sl No.	Topics	Theory / Practical Hours
1	**Graphics for print Media**	
1.1	Design Methodology	2
1.2	Vector Illustration	4

1.3	VectorVs.Raster.	2
1.4	ColourSchemesandTheories.	2
1.5	PackagingDesign.	4
1.6	TechniquesofLOGODesign	4
1.7	Creatingcollagesandmasks.	4
1.8	Imagemanipulationtechniques.	6
1.9	Imagecorrectiontechniques.	8
1.10	DesigningBrochures,CataloguesandNewspapers.	12
2	**Graphics for Digital Media**	
2.1	Digitalmediarepresentation	4
2.2	Fontsmanagement	8
2.3	Graphicsfortelevisionmedia.	12
2.4	MattPainting	16
2.5	Web Graphics	8
3	**Internship & LIVE Projects**	60

24. Certificate In Video Editing & Post Production (156 hrs)

Sl No.	Topics	Theory / Practical Hours
1	Thehistorical developmentofediting.	**4**
2	Variousstylesof editingandtheirdifferences	8
3	Narrativefilmeditingmethodology– Visualstorymaking	8
4	Creativethinkingtoexplore therole ofvideoediting in audience reaction.	10
5	Camerapositions andShots.	10
6	ColourCorrection.	16
7	TransferandOutputTechnique.	6
8	Editingstyles andtechniques	6
	A.Movies	6
	B.Documentaryproductions	6
	C.Commercials	6
	D. TelevisionMegaepisode	6

	E. News	6
	F. Titling and Montage	6
	G.Promo	6
9	**Internship&LIVEProjects**	52

25. Certificate In 2D Digital Animation (156 hrs)

Sl No.	Topics	Theory / Practical Hours
1	**Basic**	
1.1	Evaluation ofAnimation	2
1.2	TypesofAnimation	2
1.3	Storywriting-StoryBoarding	4
1.4	Gesture Drawing(Rapid Sketching)	4
1.5	AnatomyClasses (Humanandanimalstudy)	4
1.6	Perspectivedrawing	8
1.7	AnimationPrinciple	4
1.8	Frameby frameanimation	8
1.9	Tween Animation	8
1.10	In-betweeningandClean-Upassignments	8
2.	**Advance**	
2.1	Script writing&Acting	8
2.2	Character LipSyncing	28
2.3	Advance2DCharacter Animation	32
3	**Internshipin LIVEProjects**	36

26.DiplomainGraphics,2DAnimation&PostProduction

Topics	Subtopics	Estimated Duration
Graphics&Illustration		
Design	UNIT 1: History & Evolution of Design; Purpose of Graphics; Laws of Design, Philosophy of Design.	4Hrs.

methodology	UNIT 2: User Interface Design; Factors for illustration, Visual Design Methodology and process; color& style issue.	
Graphic design	UNIT 1: Introduction to Graphics, Raster and Vector Graphics, Different forms of Graphics, Colour Theory, Resolution, File Format, Advanced Raster techniques, Image manipulation techniques. Image correction techniques.	
	UNIT 2 : Print and Electronic media- History & Growth/ Difference between print and electronic media	
	UNIT 3: Graphics design: masking: Simple Selections Using Tools; Using Keys to Modify Selections; Feathering Selections; Expand/Contract; Modifying Selections In Quick Mask; Changing the Quick Mask Color;Use Refine Edge; Understanding Channels; The Essence of a Mask; Luminance Masks ;Making Masks from Scratch; Using the Batch Tools in Masks; Gradients with Masks; Inverting Masks.	
	UNIT 4: Layer management and compositing : Image Layers;Transparent Layers; Adjustment Layers; Duplicating Layers; Selecting Layers; Moving Layers; Reordering Layers ;Layer Visibility ;Using Layer Masks; Layer Order; Layer Masks to Hide and Reveal; Applying Layer Masks; Quick Compositing; Quick Transformations; Controlling Transforms; Layer Interaction; Merging Single Layers; Layer Management; Layer Management; Clipping Layers; Layer Management; Clipping Layers; Locking Layers; Transforming Layers	16Hrs.
	UNIT 5: Retouching : Cloning Options; Clean and Heal Differences; Patch Tool; Brush Tool Options; Making Skin Textures; Dodging & Burning Concepts; The Gradient tool; Skin Sculpting; Bringing out Skin Highlights; Faking a Tan; Removing Creases and Crumples; Retouching Backgrounds; Making Patterns; Using Patterns to Fill; Reconstructing Elements; Grafting Techniques; Clarity; Sharpening Controls; Channel Mix; Color Matching; Driving one Colour Against Another;Black & White Appearance in the RGB; Black & White Command; Digital Lith Effect; Cool/Warm Split Toning; Sepia Effects; Selenium Effect	
	UNIT 6: INTRODUCTION to Print media graphics - Illustrator Overview, Uses of Illustrator/ Illustrator UI/ Color Profiles & settings/Navigating through the Document ,Modifier keys/ Customizing Workspace.	
	UNIT 7: Demonstrate knowledge of Vector graphics, image size, and image file Format for print - Using Illustrator tools & Layers.	
	UNIT 8: Drawing Basic Shapes| Using Brushes/ Creating Compound Paths / Working with Color and Strokes/ Editing Objects, Layers & Groups/ Transparency & Graphic Styles, Masking using Clipping Path/ Opacity Mask using Illustrator.	

Drawing & Sketching	UNIT 1: Introduction to Sketch- Basic Technique of Sketching and Drawing, Different Forms of Sketching and Drawing, Perspective drawing (Linear perspective ,Zero Point Perspective ,One Point perspective, Two Point Perspective ,Three-Point perspective ,Isometric Perspective, Atmospheric Perspective)	8Hrs.
	UNIT 2: Pencil drawing and shadow: Advantages and Disadvantages of Pencil Drawing Basic Elements of Light, Shadows, and Shading(Light, Shadows and Shadow Box,Constructing a Simple Shadow box,Kinds and Quality of Light, Hard Light,Soft light, Basic Elements of Shading- The Highlight or Full Light,The Cast Shadow,The Halftone;The Reflected Light,	
	UNIT 3: Study of Body Parts (hands, feet, torso, legs, arms and more)	
	UNIT 4: Placement and Proportion of Facial Features (head, eyes, ears, eyebrows, eyelashes, nose, mouth, teeth, hair); Facial Poses; Expressions.	
Layout Designing	UNIT 1: Layout Principle; Scribbling layouts,	20Hrs.
	UNIT 2: Analysis of different types of layouts	
	UNIT 3: Layout design of LOGO	
	Project work	
	UNIT 4: Layout design of Paper ADVT	
	Project work	
	UNIT 5: Layout design of E-Card	
	Project work	
	UNIT 6: Layout design of Handout	
	Project work	
Background Designing	UNIT 1: Digital painting in graphics: Introduction to paintings; Type of painting methods; Digital Painting using different tool ; Type of brushes; Colors; Colors shades; Color Tints; Opacity; Flow; Brush tool; Brush presets; Defining Brush presets; Brush palette; Brush palette options; Brush size; Types of Brushes; Brush shape dynamics; Scattering; Dual Brush; Color Dynamics; Wet edges; Airbrush; Brush angles; Brush hardness & softness; Use of layer in digital painting; layer opacity; layer arrangements; Mixer brush; History brush; Art History brush.	
	UNIT 2: Matt Painting : landscape (village)	
	Project work	
	UNIT 3:Matt Painting : landscape (city)	
	Project work	
	UNIT 4:Matt Painting : exterior design (palace)	
	Project work	
	UNIT 5: Matt Painting : interior design (palace)	
	Project work	

	UNIT 6: Matt Painting : interior design (modern room)	
	Project work	
	UNIT 7: Matt Painting : Props design	
	Project work	
	UNIT 8: Matt Painting : character design	
	Project work	

2D Animation		
Evaluation of Animation	History of Animation ,Animation Industry-Today	2
Types of Animation	Theoretical description of Digital animation, Classical animation, Stop motion animation, Cut out Animation, Clay animation … etc.	2
Story writing-Story Boarding	Story Ideation and conceptualization Making a storyboard for an animation content. Project work	6
Anatomy Classes (Human and animal study)	Figure Drawing;Human Figure Proportions using software - Flash Figure Drawing;Animal Figure Proportions using software - Flash	4
Perspective drawing	Character posing and perspective drawing. Project work	4
Animation Principle	Detail discussion on animation principle Application of animation principle by scribble drawing	4
Clean-Up assignments	Overview of Flash - Timeline, frames and tools Tracing an object by using of Flash	6
Frame by frame animation and In-between	Frame by frame animation using Flash Utilization of in between frames Application of animation principle using frame by frame animation Project work	8
Tween Animation	Overview of Flash - symbols, tween animation Application of animation principle using tween animation	4
Script writing & Acting	UNIT 1: Principles of script writing, Directors script, Aesthetics of script, Script break down, Screenplay dialog, Three act structure Plot points, Scene description and Narrative treatment, Script development	10
	UNIT 2: Select a theme; Research a theme; Write a synopsis, Write character notes; Write a treatment; Understand the drafting process.	
	UNIT 3: Importance of Acting in animation;, Staging Characters, Scene Composition, Effective Scene development process, Creative Body Movements, Gestures, postures, body language, compositions, Acting Workshop.	
	UNIT 4: Basics of Acting - Principle of Acting, Actor responsibility, Body Language of an actor, Dialogues, Expression, Script Understanding, Pronunciation and accent, Necessity of Voice Modulation	
	UNIT 5: Dubbing concept; Art of dubbing, Dubbing process - voice-	

	over for movies, television, animation series; Diction & importance of clarity of speech -- articulation as well as expressions.	
Character Lip Syncing & expression	UNIT 1: Making lip sample for the character	10
	UNIT 2: Recording the voice using Sound Forge, importing the VO in flash.The process of lip Syncing	
	Project work	
	UNIT 3: Making lip & Facial expression according to dialogue	
	Project work	
Advance 2D Character Animation	UNIT 1: Profile Walk Cycle [two legs]	24
	Practice	
	UNIT 2: Front Walk Cycle [two legs]	
	Practice	
	UNIT 3: 3/4th Walk Cycle [two legs]	
	Practice	
	UNIT 4: Profile Walk Cycle [four legs]	
	Practice	
	UNIT 5: Run Cycle [two legs]	
	Practice	
	UNIT 6: Run Cycle [four legs]	
	Practice	
Editing & Post Production		
Video editing fundamentals	Basic concept of video editing; : Explain Video Editing; Explain Linear and non-linear editing; Explain On-Line and Off-Line Editing.	2
Camera positions and Shots.	UNIT 2 : CAMERA-the basics- Camera fundamental, Types of camera, Camera for movie, Equipmentchecklist,Focus, ShutterSpeed; Camera Movement-Pan, Tilt, Zoom, Types of Shots, Camera angles.	2
Introduction Of Editing Software (Premiere)	UNIT 1: Project setup in Premiere Pro : Creating projects ,Importing footage into Premiere Pro,Supported file formats ,Transferring and importing files ,Importing sequences. Clip lists, and compositions ,Importing still images ,Importing digital audio, Working with timecode . Setting up your system for HD, DV, or HDV capture ,Create clips for offline editing ,Capture HD, DV, or HDV video.	4
	UNIT 4: Practice	
Editing Sequence and clips. Sequence and Rendering Setup	UNIT 1: Editing sequences and clips in Premiere Pro :Add clips to sequences	6
	UNIT 2: Multi-camera editing workflow,Working with markers ,Create and play clips,Trimming clips, Working with offline clips ,Relinking offline media,Synchronizing audio and video with	

	Merge Clips ,Modifying clip properties with Interpret Footage Freeze and hold frames	
	UNIT 3: Practice	
Working with captions and titles.	UNIT 1: Creating and editing titles ,Creating and formatting Text in titles,working with text and objects ,Adding image to titles , live text templates, Title text style, Drawing shapes in titles,Fills stroke and shadows in title, Rolling and crawling in titles	4
	UNIT 2: Practice	
Effects and transitions in Premiere Pro	UNIT 1: Types of effects in Premiere Pro,Video effects and transitions in Premiere Pro,Apply and remove effects,Viewing and adjusting effects and keyframes. Masking and tracking ,Modifying and customizing transitions ,Change duration and speed of clips ,Use Motion effect to edit and animate clips.	6
	UNIT 2: Adjustment Layers ,Color correction effects,Three-Way Color Corrector ,Interlacing and field order ,Eliminate flicker	
	UNIT 3: Practice	
Animation and keyframes in Premiere Pro	UNIT 1: Animating effects ,Adding, navigating, and setting keyframes ,Moving and copying keyframes ,Controlling effect changes using keyframe interpolation	4
	UNIT 2: Practice	
Editing audio in Premiere Pro	UNIT 1: Editing, repairing, and improving audio using Essential Sound panel, Using the Essential Sound panel in Premiere Pro,Audio channel mapping in Premiere Pro ,Overview of audio and the Audio Track Mixer,Editing audio in a Timeline panel,Adjusting volume levels,Monitor clip volume and pan using Audio Clip Mixer,Panning and balancing,Recording audio	4
	UNIT 2: Practice	
Advance audio editing	UNIT 1: Recording audio mixes ,Control surface support,Apply effects to audio ,Working with audio transitions ,Multiple stereo assignments for tracks to multichannel masters, Control surface supports, Advance mixing, Applying effect to audio.6	4
	UNIT 2: Practice	
Color correction and adjustment	UNIT 1: Fast Color Corrector,Luma and RGB Curve,Three-Way Color Corrector, Secondary Color Correction, The Lumetri Color Panel	2
	UNIT 2: Practice	
Compositing in Premiere Pro and Exporting media from Premiere Pro	Blending modes ,Compositing, alpha channels, and adjusting clip opacity, Workflow and overview for exporting,Exporting projects ,Export a still image ,Exporting to videotape,Exporting for the Web and mobile devices	2

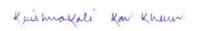|		
Projects	Episode editing forTelevision	6
Organizing media in FCP	UNIT 1 : Working with Metadata: Using metadata that is part of imported (source) content, Using auto-analysis and adding metadata, Using metadata views and creating new metadata views Working with and editing existing metadata views, Using and organizing Keywords Applying markers.	4
	UNIT 2: Using filters to locate clips Creating Smart Collections Batch renaming,Relinking clips,Using Libraries: closing and duplicating Final Cut Pro libraries; sharing and moving libraries; moving clips between libraries Using Projects: working with project snapshots and back- ups Managing disk space and removal of render files Managing proxy media Adjusting storage locations Using optimized media.	
Advanced final cut pro editing techniques	Understanding an editing strategy for Final Cut projects,Combining edits, Understanding storylines and secondary storylines, Using trim to playhead, Using trim to selection, Working with compound clips,Applying titles to connected clips, Back timing edits	2
Understanding audio editing in final cut pro	Audio levels and mastering, Using audio meters,Understanding waveforms, Applying timeline volume adjustments,Adjusting volume in specific areas,Using volume adjustments r, Adjusting Volume from the Modify Menu or Keyboard Applying fades and crossfades,Using audio channels,Panning, stereo and surround pans, pan effects, and using panning in the timeline,Using pan presets, Working with Audio channels, Synchronizing audio and video, Resetting all volume edits	4
Applying audio effects	Equalizing audio in Final Cut Pro, Equalization Filters Disabling clip effects,Sharing effects between clips,, Leveling effects Creating reverb, space, time, and echo, Using distortion presets, Manipulating voice and pitch using effects, Maintaining voice pitch with retiming	4
	UNIT 2: Practice	
Multi-camera (multicam) editing	Creating multicam clips,Viewing and editing multicamclip,s Cutting between camera angles, Using channel selection,Trimming when working with multicam clips, Changing clip sequences,Adjusting synchronization between clips Adding or removing clips	4
	UNIT 2: Practice	
Animation and keyframes in Premiere Pro	UNIT 1: Animating effects ,Adding, navigating, and setting keyframes ,Moving and copying key frames ,Controlling effect changes using keyframe interpolation	4
	UNIT 2: Practice	

Editing audio in Premiere Pro	UNIT 1: Editing, repairing, and improving audio using Essential Sound panel, Using the Essential Sound panel in Premiere Pro,Audio channel mapping in Premiere Pro ,Overview of audio and the Audio Track Mixer,Editing audio in a Timeline panel,Adjusting volume levels,Monitor clip volume and pan using Audio Clip Mixer,Panning and balancing,Recording audio	4
	UNIT 2: Practice	
Advance audio editing	UNIT 1: Recording audio mixes ,Control surface support,Apply effects to audio ,Working with audio transitions ,Multiple stereo assignments for tracks to multichannel masters, Control surface supports, Advance mixing, Applying effect to audio.	4
	UNIT 2: Practice	
Color correction and adjustment	UNIT 1: Fast Color Corrector,Luma and RGB Curve,Three-Way Color Corrector,Secondary Color Correction,The Lumetri Color Panel	2
	UNIT 2: Practice	6
Internship & LIVE projects		70

<u>Annexure –II</u>
<u>APPLICATION FORM</u>

1	Training Center name	
2	Training Center 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:
	       or ESDM TP ID:
	       or NIELIT Facilitation No:
	       or WIL Registration No:
	       or 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	Hardware Availability	Attach details
7	Software Availability	Attach details
10	Faculty Profile	Attach details
11	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.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/EOI/2021/ dated 22/04/2021

Signature of the Witness: Signature of the
                                                             Authorized Signatory:
Name: Name:
Designation: Designation:
Date: Date:
Address: Address:
Seal of the organization   Seal of the organization