Maharashtra State-Certificate in Information Technology

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#### **A. Computer Basics**

- 1. Overview of computers
- 2. Uses of computer
- 3. Using mouse comfortably
- 4. Using keyboard for typing
- 5. Understanding Input, Process and Output
- 6. Computer Hardware and Software



#### **B. Operating System (Windows 7)**

- 1. Overview of Operating System
- 2. Basic Operations
  - a. How to start a computer
  - b. How to logoff and hibernate a laptop
  - c. How to connect a headset to computer
  - d. Learn to interact with computers

#### 3. Personalizing Desktop

- a. Changing the Desktop Background
- b. Applying a Screen Saver
- c. Applying Themes
- 4. File and Folder Management
- 5. Using Applications
  - a. Creating pictures with MS Paint
  - b. Using Notepad to create a text document
  - c. Using WordPad to decorate a document
  - d. Windows Media Player
  - e. Calculator
  - f. Sticky Notes







- g. Tablet PC Input Panel
- h. Windows Games
- i. Math Input Panel

#### C. 21st Century Daily Life Skills:

- I can use Google PlayStore and download apps (e.g. MKCL Learner App)
- 2. I can use Paytm for cashless transactions
- 3. I can open my net banking account
- 4. I can use my credit or debit card for online shopping
- 5. I can create and operate an email account
- 6. I can reset my email password
- 7. I can pay telephone bill online
- 8. I can pay electricity bill online
- 9. I can recharge my mobile phone online
- 10. I can protect myself from cyber bullying
- 11. I can use Internet Explorer to browse web pages
- 12. I can add websites in favourite folder
- 13. I can configure and activate internet connection
- 14. I can use Sharelt app to share the files with others
- 15. I can use CamScanner app to scan the documents
- 16. I can print and save web pages
- 17. I know importance of strong passwords
- 18. I can build my network for professional upgradation
- 19. I can book movie tickets online
- 20. I can use Naukri.com app to search job online
- 21. I can use GPS Route Finder app to easily track all the visited locations
- 22. I can use an app to read newspaper online
- 23. I can share my presentation on SlideShare
- 24. I can listen to my favourite songs on Saavn app
- 25. I can use Flipkart app for online shopping
- 26. I can sell old items online on OLX
- 27. I can use Opera Mini app
- 28. I can send and receive eFax
- 29. I can use GST rate finder app











- 30. I can use Lipikaar app for typing messages in other languages
- 31. I can send bulk messages
- 32. I can pay income tax online
- 33. I can use Evernote app to access my notes everywhere
- 34. I can use Udemy app for learning and teaching online
- 35. I can participate in a Webinar
- 36. I can book train tickets online
- 37. I can use MakeMyTrip app to organize my trip online
- 38. I can book air tickets online
- 39. I can scan QR code using use Barcode Scanner app
- 40. I can book gas refill online
- 41. I can put my important files on a CD or DVD
- 42. I can search for any location using Google Maps
- 43. I can enhance the performance of my computer
- 44. I can transfer data between computer and other devices
- 45. I can capture a screen using the snipping tool
- 46. I can compress/decompress files
- 47. I can protect computer from viruses
- 48. I can connect computer to a projector





## D. 21st Century Citizenship Skills:

- 1. I can apply for Birth Certificate online
- 2. I can apply for Duplicate Birth Certificate online
- 3. I can apply Aadhaar Card online
- 4. I can download Aadhaar Card online
- 5. I can verify Aadhaar Details online
- 6. I can update Aadhaar Details online
- 7. I can know all Emergency Numbers
- 8. I can get help online
- 9. I can book appointment online in Government Hospital
- 10. I can apply application Form for Enrolment of Children (6 months 3 yrs.) at Anganwadis
- 11. I can apply for Age, Nationality and Domicile Certificate online
- 12. I can apply for Caste Certificate online





- 13. I can apply for BPL Certificate online
- 14. I can apply for Learner License online
- 15. I can book appointment for Learner License Test
- 16. I can know your vehicle details
- 17. I can apply for Passport online
- 18. I can track passport application status online
- 19. I can apply for Atal Pension Yojana online
- 20. I can apply for Pradhanmantri Suraksha Bima Yojana online
- 21. I can apply for Pradhanmantri Jeevan Jyoti Bima Yojana online
- 22. I can store certificates in Digi locker online
- 23. I can scan documents and store online
- 24. I can use Google Drive to store your important files
- 25. I can apply voter ID card online
- 26. I can search my name in voter ID card list
- 27. I can know my Booth
- 28. I can apply for Driving License online
- 29. I can book appointment for driving license test
- 30. I can get trained about Disaster Management
- 31. I can apply for PAN Card online Part I
- 32. I can apply for PAN Card online Part II
- 33. I can apply for Income Certificate online
- 34. I can register complaint on Consumer Forum
- 35. I can make an appointment with government officer online booking
- 36. I can registration on MGNREGA
- 37. I can view details on MGNREGA
- 38. I can check Provident Fund Online
- 39. I can use Rakshak app for safety of women and senior citizens
- 40. I can download Forms
- 41. I can apply for Marriage Certificate online
- 42. I can apply for Ration Card online Part I
- 43. I can apply for Ration Card online- Part II
- 44. I can apply for Pradhanmantri Awas Yojana online
- 45. I can apply for Water Connection online
- 46. I can apply for Electricity Connection online
- 47. I can apply for Toilet Certificate online
- 48. I can check my property records in the government record









- 49. I can check your land records in the government record
- 50. I can apply for Pradhanmantri Sukanya Samruddhi Yojana online
- 51. I can apply for Pradhanmantri Mudra Yojana online
- 52. I can register FIR online
- 53. I can apply for Startup Recognition online
- 54. I can apply for Registration of Partnership Firm online
- 55. I can apply for Senior Citizen Certificate online
- 56. I can use mKisan portal and Kisan App
- 57. I can check weather status in my area
- 58. I can get my soil health card
- 59. I can know the market price
- 60. I can apply for death certificate online
- 61. I can apply for duplicate death certificate online



### E. 21st Century Study Skills:

- 1. I can use Google to search more information about study topics
- 2. I can use Wikipedia to search the information
- 3. I can use Justdial to search for tutor services
- 4. I can listen to Online Stories / Classic Literature in any language
- 5. I watch educational videos online (YouTube)
- 6. I can search and download eBooks (NCERT)
- 7. I can improve my vocabulary using VoLT
- 8. I can check for grammar and spell check
- 9. I can search synonyms, antonyms, and thesaurus on dictionary.com
- 10. I can organize my day/ Notes, important points using Google Keep
- 11. I can keep track of my important events/classes all in one place (Google Calendar)
- 12. I can share notes during class & get doubts cleared in real time with my classmate's Maths/Physics/Accounts (Google Docs) facebook.
- 13. I can watch educational talks on TED Talks
- 14. I can participate in Live Discussions (Facebook Live)
- 15. I can learn by discussions in forums (quora.com)
- 16. I can learn a new language by interacting with my phone with the Duolingo App







- 17. I can join Massive Open Online Courses (MOOCs)
- 18. I can join online courses on Coursera.org
- 19. I can learn any subject online for free on edX
- 20. I can learn from Best Colleges in the World NPTEL
- 21. I want to learn through videos on Khan Academy
- 22. I can express my Ideas using Mindmap tool
- 23. I can find information about The World via https://knoema.com/atlas
- 24. I want to learn about the stars by using http://stars.chromeexperiments.com/
- 25. I want to learn about History using Google Arts and Culture
- 26. I can learn by playing games & improve my abilities Elevate
- 27. I can do science experiments Physics
- 28. I can do Math Experiments
- 29. I can do science experiments Chemistry
- 30. I can test my IQ
- 31. I want to prepare for MPSC
- 32. I can share information using Slide Share
- 33. I can make a presentation on my research & take real time feedback via Google Slides
- 34. I can do clustered search
- 35. I know about the History of India, chronologically using India History App
- 36. I can share my knowledge of technology by making a blog via Tumblr
- 37. I can check my project report for Plagiarism using Plagiarism checker
- 38. I can access online Research Papers (Google Scholar)
- 39. I can collaborate with peers to practice for competitive exams like IIT JEE
- 40. I can understand my personality type https://www.16personalities.com/
- 41. I can conduct a Poll/survey/research using Google Forms
- 42. I can create home design and interior decor in 2D & 3D Architecture via https://planner5d.com/
- 43. I can draw art on a tablet using an app
- 44. I can listen to a podcast and learn cool science facts in 60 seconds
- 45. I can test my EQ
- 46. I can learn by playing games & improve my abilities NeuroNation



- 47. I want to improve my Social Learning/General Knowledge using Facebook
- 48. I can improve my productivity using StayFocusd App



Google Slides



49. I can learn programming/ coding with peers on www.codecademy.com

## F. 21st Century Office Skills:

- 1. I can make the Letter better
- 2. I can draft a NOTICE
- 3. I can design a GREETING CARD
- 4. I can make creative BOOKMARK
- 5. I can design a GIFT LABEL
- 6. I can design a WEB PAGE
- 7. I can build a professional PROFILE ( RESUME)
- 8. I can make a good PROJECT REPORT
- 9. I can create a LETTERHEAD
- 10. I can design a VISITING CARD
- 11. I can make an eCard
- 12. I can create a USER MANUAL
- 13. I can design an attractive BROCHURE for summer camp
- 14. I can create a REGISTRATION FORM
- 15. I can create a professional INVITATION LETTER
- 16. I can create an ENVELOPE
- 17. I can create an impressive NEWSLETTER



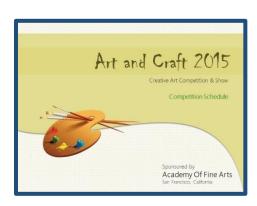




- 18. I can design an eye-catching ADVERTISEMENTI can create a BLOG POST using templates
- 19. I can create a CHECKLIST
- 20. I can design an attractive BROCHURE
- 21. I can create TO-DO LIST
- 22. I can prepare an AGENDA
- 23. I can create useful ADDRESS BOOK
- 24. I can create a simple TIMESHEET
- 25. I can design a simple DATABASE
- 26. I can track EVENT EXPENSES more easily
- 27. I can prepare personal BUDGET sheet quickly
- 28. I can create a LOAN CALCULATOR
- 29. I can create a monthly APPOINTMENT CALENDAR
- 30. I can manage MEETING MINUTES quickly and easily
- 31. I can create a CHECKLIST
- 32. I can design beautiful GREETING CARD
- 33. I can make a CERTIFICATE
- 34. I can make a design a creative GIFT VOUCHER
- 35. I can design a COMPANY PROFILE
- 36. I can prepare effective TRAINING PRESENTATION
- 37. I can prepare a professional BUSINESS PRESENTATION
- 38. I can create a digital PRODUCT CATALOGUE
- 39. I can create a DIGITAL PHOTO ALBUM
- 40. I can create a PERSONAL PORTFOLIO
- 41. I can make a SCHEDULE
- 42. I can design personalized STICKERS
- 43. I can design an inspiring MAGAZINE COVER
- 44. I can design a professional POSTER
- 45. I can create BLOODSTOCK database (Combine Output)
- 46. I can create and send MAIL MERGE-NOTICE (Combine Output)
- 47. I can create a GREETING CARD (Combine Output)
- 48. I can create ATHLETICS EVENT MANAGEMENT sheet (Combine Output)
- 49. I can create a PROJECT REPORT (Combine Output)
- 50. I can SCHEDULE seminar (Combine Output)









#### Word Processing (Microsoft Word 2013 / Google Docs)

- 1. Basic Operations
- 2. Creating and Editing documents
- 3. Formatting documents
- 4. Enhancing documents
- 5. Applying Page Setup
- 6. Working with various objects like shapes, SmartArt, Pictures and Tables
- 7. Inserting Header and Footers
- 8. Linking and embedding documents
- 9. Previewing and Printing documents
- 10. Advanced Word Processing
  - a. Creating and Editing PDF documents
  - b. Comparing two versions of a document
  - c. Proofreading of a document
  - d. Using track changes
  - e. Including Digital Signature into the document
  - f. Inserting ActiveX controls
  - g. Using Table of Contents
  - h. Using Mail Merge
  - i. Protecting a document
  - j. Sharing document online
  - k. Creating a web page











#### Spreadsheet (Microsoft Excel 2013 / Google Sheets)

- 1. Creating and editing workbook
- 2. Organizing and formatting worksheets
- 3. Data analysis and management
- 4. Using formulas and functions
- 5. Previewing and printing worksheets
- 6. Advanced Spreadsheet
  - a. Managing multiple worksheets
  - b. Producing and designing charts
  - c. Creating Pivot tables and pivot charts
  - d. Importing and exporting data between spreadsheets and other applications
  - e. Using advanced functions
  - f. Applying conditional formatting
  - g. Using data validation
  - h. Using sort and filter

#### Presentation Graphics (Microsoft PowerPoint 2013 / Google Slides)

- 1. Creating and Editing Presentations
- 2. Designing and Enhancing Presentation
- 3. Delivering Presentation
- 4. Advanced Presentation Graphics
  - a. Creating videos of presentations
  - b. Saving presentation in various formats
  - c. Importing and exporting presentations
  - d. Using templates
  - e. Working with slide master







#### Personal Information Manager (Microsoft Outlook 2013 / Gmail Inbox)

- 1. Setting up a new email account in Microsoft Outlook
- 2. Sending, receiving, replying, forwarding mail messages
- 3. Including a signature in outgoing message
- 4. Scheduling meetings with others
- 5. Creating contacts and appointments



#### G. Cyber Security Skills:

- 1. I can manage and maintain strong passwords
- 2. I can secure my online banking and take care of information safety
- 3. I can set Emergency Text on ANDROID phone to be used when it is locked
- 4. I can track the data (internet) usage on Android PHONE
- 5. I can use good antivirus software for my Laptop and PC
- 6. I can secure the Profile and other pictures shared on Facebook
- 7. I can use App Locker tools for important Mobile Apps
- 8. I can restrict Administrator account access on Personal Laptops
- 9. I can use "safely remove hardware option" for plug and play devices
- 10. I am aware about the legal aspects of fake Profiles on Social Media Sites
- 11. I can secure my WhatsApp DP
- 12. I know the legal aspects of publishing /transmitting material containing sexually explicit conducts
- 13. I am aware about defamation through social media and it's legal implications
- 14. I am aware about cheating through matrimonial sites
- 15. I can be careful while Sharing and Forwarding on social media
- 16. I know the importance of using a physical lock for laptop





- 17. I know the importance of noting down the IMEI Code
- 18. I can avoid malware while downloading Android apps
- 19. I know about the legal consequences of using cracked or pirated software
- 20. I know how to secure net banking and online transactions on Public computers
- 21. I know about data theft and IT Act 2000
- 22. I know about Online Sexual harassments and it's Legal implications
- 23. I know how to protect myself from online lottery cheating and fake messages
- 24. I am aware about and can protect myself from 'Work from Home' scams
- 25. I can protect myself from social media blackmailing
- 26. I know the consequences of downloading unknown Email attachments and safety tips
- 27. I am aware about the legal consequences of displaying and distributing pirated music/ videos
- 28. I know how to protect data in case of loss or theft of computer/laptop
- 29. I know what steps to follow if my Mobile is stolen /lost
- 30. I can use safety tips for using public Wi- Fi networks
- 31. I can secure my Aadhaar card data
- 32. I know about the hazards of playing online mobile games
- 33. I am aware about data theft through shoulder surfing
- 34. I can use the safety tips while taking selfies
- 35. I know the legal consequences about data tampering
- 36. I am aware about the hazards of using mobile while walking or driving a vehicle on road
- 37. I know the legal aspects of offence like internet and drug trafficking
- 38. I can protect myself while travelling by a hired car
- 39. I can identify and protect myself from fraud calls regarding online lucky draw





Creating a Knowledge Lit World

#### H. Basic IT Awareness

- 1. What is booting?
- 2. Google Name Story
- 3. What is Data?
- 4. Google's Self-Driving Car 5. Know about Information System
- 6. What is Software?
- 7. Google Project Loon
- 8. What is Hardware?
- 9. Google Glass
- 10. Various Types of Micro Computer
- 11. Smart Watches
- 12. Know about Working of Computer
- 13. Flexible Technology
- 14. Use of Internet for Entertainment
- 15. Transparent Technology
- 16. Uses of the internet for education 17. Know about Internet & Web
- 18. What is Browser?
- 19. What is URL & Hyperlink
- 20. What is Email?
- 21. What is Instant Messaging?
- 22. What is WWW?
- 23. What is e-commerce?
- 24. Electronic Commerce Securities
- 25. Using Wikipedia
- 26. Domain Name
- 27. What is Social Networking
- 28. Mark Zuckerberg







- 29. Internet Service Provider
- 30. Budhayana
- 31. About Internet Modem
- 32. World Wide Web's History
- 33. File Transfer Protocol
- 34. Navigation Technology
- 35. Web Based Applications
- 36. Takshashila
- 37. Plugins and Extensions
- 38. Homi Bhabha
- 39. Filters
- 40. Larry Page
- 41. Content Evaluation & Internet Security Suites
- 42. Home Network and Wi-Fi
- 43. Device Drivers
- 44. Device Drivers
- 45. Disk clean up and defragmenter
- 46. Motherboard
- 47. Microprocessor Chips
- 48. Specialty Processors
- 49. Bus Lines
- 50. About AC and DC Power Supply
- 51. Bus Line
- 52. What is Binary system & Binary coding scheme
- 53. Power Supply
- 54. Power Supply Unit
- 55. What is Input?
- 56. Digital Camera
- 57. About Output Device
- 58. QWERTY
- 59. About Features of monitor
- 60. Voice Recognition Systems
- 61. 3D Printing
- 62. Card Reader
- 63. Bill Gates
- 64. About Storage
- 65. Optical Disc









- 66. C.V. Raman
- 67. Hard Disk and RAID
- 68. Steve Jobs
- 69. Using Solid State Storage
- 70. Mass Storage Devices
- 71. Tim Berners Lee 72. Internet Hard Drive
- 73. What is Topology?
- 74. Types of Network
- 75. Robert Cailliau 76. What is Protocol?
- 77. Know about Physical Connection Of Networks
- 78. Analog and Digital
- 79. Bandwidth



## I. Smart Typing Skills



## J. Computer Ethics

- Computer Ergonomics
- Go Green
- Netiquettes



## **K. Study Material**

Highly illustrative book called Introduction to Information Technology By Timothy J.
O'Leary & Linda I. O'Leary

