ANNEXURE – II

SCHEME AND SYLLABUS FOR THE POST OF FOREST BEAT OFFICER AND ASSISTANT BEAT OFFICER IN A.P.FOREST SUBORDINATE SERVICE

SCHEME FOR SCREENING TEST

(Objective Type)

PART	Subject	No. of Questions	Duration in Minutes	Maximum Marks
A	General Studies & Mental Ability	75	150	75
B	General Science and General Mathematics (SSC Standard)	75		75
Total				**150**

N.B: As per G.O.Ms. No.235, Finance (HR-1, Plg & Policy) Dept, Dt: 06/12/2016, each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

SYLLABUS FOR SCREENING TEST

PART – A (75 Marks)

GENERAL STUDIES & MENTAL ABILITY

1. General Science – Contemporary developments in Science and Technology and their implications including matters of every day observation and experience, as may be expected of an individual who has passed Intermediate and not made a special study of any scientific discipline.

2. Current events of National importance and the State of Andhra Pradesh.

3. History of India – emphasis will be on broad general understanding of the subject in its social, economic, cultural and political aspects with a focus on AP and Indian National Movement.

4. Geography of India with a focus on Andhra Pradesh State.

5. Indian polity and Economy – including the country's political system - Rural development – Planning and economic reforms in India.

6. Mental Ability – Reasoning & Inferences.

7. Sustainable Development and Environmental Protection.

8. Disaster Management:
   a) Concepts in disaster management and vulnerability profile of India and State of A.P.
   b) Causes and effects of Earthquakes, Cyclones, Tsunami, Floods and Drought.
   c) Manmade disasters - Prevention strategies, mitigation strategies and measures.

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PART – B (75 Marks)

GENERAL SCIENCE (SSC Standard)

1. **Source of Energy:** Renewable and Non-renewable sources of energy.
   a) Renewable sources: Solar energy (Solar Cooker, Solar water heater, Solar Cell); Wind energy, Hydro energy (Tides of Ocean, Hydroelectric), Geothermal wood, Biogas, Hydrogen and Alcohol.
   b) Non-renewable sources: - Fossil fuel (Coal, Petroleum and Natural gas), conditions for combustion choice of a good fuel, fuel efficiency, nuclear fusion and nuclear fission, chain reaction, nuclear reactor (basic principles; safety measures), advantages and hazards of nuclear energy, mangal Turbine (Fuel less turbine)- Principle, working and uses.

2. **Living world:**
   a) Life Processes such as nutrition, modes of nutrition - Autotrophic, heterotrophic, Parasitic and saprophytes.
   b) Nutrition of plants – Photosynthesis & factors affecting the photosynthesis
   c) Nutrition in animals like Amoeba & grasshopper.
   d) Human digestive system.
   e) Respiration in Plants and Animals.
   f) Type of respiration- Aerobic and anaerobic respiration.
   g) Respiration through Skin, Gills, trachea lungs. (Earthworm, Fishes, Grasshopper and Human)
   h) Knowledge of structure and function of human respiratory system.

3. **Transportation & Excretion:**
   a) Transportation in Plants and animals. (Water, minerals, food).
   b) Transportation in Human - Composition and function of blood, clotting of blood, blood Groups, transfusion of blood, heart, structure and functions of blood vessel (elementary knowledge) and lymphatic system.
   c) Excretion in animals (Amoeba and earth worm), excretion in human, Osmoregulation.
   d) Nervous system and hormones in Human- reflex action.

4. **Reproduction, growth, heredity and evolution:**
   A) Reproduction and growth:
   　　i) Types of Reproduction:
   a) Asexual: Fission budding, regeneration, vegetative propagation in plants, cutting, grafting and layering, Parthenogenesis.
   b) Sexual reproduction and its significance- reproductive parts of plants, pollination and fertilization.
   c) Human reproductive system, mental and physical change during human development.

   B) Heredity and Evolution:
   a) Heredity and Variations,
   b) Physical basis of Heredity-chromosomes; D.N.A. (elementary knowledge), Genes, Sex determination.
   c) Elementary knowledge of evolution.

5. **Natural Resources:**
   a) Metals: Ores and minerals, metallurgy, Enrichment of ores, extraction of metal from ores, refinement and purification of metal with reference to Iron and aluminium, Activity series of metals, general properties and corrosion of metals, Alloys, Components, properties and uses of steel; stainless steel, Brass, magnalium, alloys of gold.

   b) Non-metals: Importance and general properties, method of preparation of hydrogen, properties and its uses, manufacturing of ammonia (Only reactions), properties and uses, sulphur - occurrence, extraction, properties (allotropy and effect of heat) and uses. Properties and uses of Sulphur dioxide, manufacture of sulphuric acid (Only reactions), its properties and uses.

6. **Carbon Compounds:** Functional groups (only oxygen containing) Alcohols -preparation, properties and uses, preparation methods, properties and uses of formaldehyde, Acetone and Acetic acid. Some common synthetic polymers, soaps and detergents.

7. **Environment and Environmental Problems:**
   a) Causes, prevention and control of environmental problems, Land, water, Air, noise pollution and accumulation of waste materials.
   b) Biodegradable and Non-biodegradable materials,
   c) Interaction between biotic and non-biotic components of ecosystem.
   d) Ecological balance, efforts and measures for conservation of environment.
   e) Process of water management and conservation:
      1) Rain water harvesting
      2) Ground water recharging
      3) Conservation of forests
      4) Land management and conservation
      5) Public awareness for environmental protection
      6) Green House effect
      7) Global warming
      8) Ozone layer depletion
      9) Acid rain.

8. **Ethnobotany:**
   a) Morphological study of medicinal plants, their classification on the basis of their use and life span.
   b) Study of botanical names and medicinal use of the following seasonal and perennial plants.

A. Seasonal plants:			
Malkangni	Celastruspaniculetus	Cumin	Cuminum cyminum
Ashwaganda	Withaniasomnifera	Fennel	Foeniculum vulgare
Ginger	Zingiber officinane	Ajwayin	Trachyspermumammi
Turmeric	Curcuma longa	Marua	Origanum majorana
Garlic	Allium sativum	Tulsi	Ocimum sanctum
Fenugreek	Trigonella foenum-graecum	Vacha	Achorus calamus
Touch- me- not	Mimosa pudica	Adusa	Adhatodavasica
Soya	Glycine max	Giloy	Tinospora cordifolia
Shatawar	Asparagus racemosus	Harjor	Cissus quadrangularis
Sarpgandha	Rauvolfia serpentina	Bryophytum	Bryophytumpinnatum
Isabgol	Plantago ovata	Bhui Aonla	Phyllanthus niruri
Dioscorea	Dioscorea pentaphylla	Castor	Ricinus communis
B. Perennial plants:			
Harad	Terminalia chebula	Harshinagar	Nyctanthus arbor-tristis
Baheda	Terminalia bellirica	Amaltash	Cassia fistula
Aonla	Phyllanthus emblica	Pomegranate	Punica granatum
Nirgundi	Vitex negundo	Sandal	Santalum album
Babool	Acacia nilotica	Nuxvom,	Strichnusnux-vomica
Neem	Azadirachta indica	Paras peepal,	Thespesia populnea
Sheesham	Dalbergia sissoo	Arjuna,	Terminalia arjuna
Catechu	Acacia catechu	Eucalyptus,	Eucalyptus
Karanj	Pongamia pinnata	Bel,	Aegle marmelos
Sweet Neem	Murrayakoenigii	Apamargh,	Achyranthes aspera
Kachnar	Bauhinavariegata	Bhringraj,	Eclipta alba
Peepal	Ficus religiosa	Kaner	Nerium oleander

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GENERAL MATHEMATICS (SSC Standard)

1. ARITHMETICS:

a) Number System-Natural numbers, Integers.
b) Rational and Real numbers.
c) Fundamental operations, addition, subtraction, multiplication, division, square roots, Decimal fractions.
d) Unitary method-time and distance, time and work, percentages, applications to simple and compound interest, profit and loss, ratio and proportion, variation.
e) Elementary Number Theory – Division algorithm, Prime and composite numbers. Tests of divisibility by 2, 3, 4, 5, 9 and 11.
f) Multiples and factors, factorisation Theorem. H.C.F. and L.C.M. Euclidean algorithm. Logarithms to base 10, laws of logarithms, use of logarithmic tables.

2. GEOMETRY:

i) Lines and angles, Plane and plane figures.

ii) Theorems on
   a) Properties of angles at a point.
   b) Parallel lines.
   c) Sides and angles of a triangle.
   d) Congruency of triangles.
   e) Similar triangles.
   f) Concurrence of medians and altitudes.
   g) Properties of angles, sides and diagonals of a parallelogram, rectangle and square.
   h) Circles and its properties including tangents and normals.
   i) Loci.

3. STATISTICS:

a) Collection and tabulation of statistical data,
b) Graphical representation - frequency polygons, histograms, bar charts, pie charts etc.
c) Measures of central tendency.

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SCHEME FOR MAIN EXAMINATION

(As per G.O.Ms.No.3, General Administration (Ser-A) Dept., dated: 04.01.2019)

PAPER	Subject	No. of Questions	Duration Minutes	Maximum Marks
Qualifying Test	Writing an essay in English or Telugu or Urdu (Descriptive Type)	1	45	50
PAPER-I	General Studies & Mental Ability (Objective Type)	100	100	100
PAPER-II	General Science and General Mathematics (SSC standard) (Objective type)	100	100	100
TOTAL				**200**
NEGATIVE MARKS: As per G.O. Ms. No.235, Finance (HR-I, Plg & Policy) Dept.,Dt.06/12/2016, each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.				

N.B.: 1. Candidates are required to undergo a walking test and also a Medical Examination (conducted by a Medical Board). Both the tests shall be arranged by the Forest Department, duly taking concurrence of A.P.P.S.C. For this purpose, the Commission will pick up eligible candidates in the ratio of 1:2 with reference to total number of vacancies as per General Rule 22 & 22A.

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SYLLABUS FOR MAIN EXAMINATION

QUALIFYING TEST

(50 Marks - 1 Question - 45 Minutes)

Writing an essay in English or Telugu or Urdu **(Descriptive Type)**

(Essay on theme relating to Forests and Environment)

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PAPER – I (100 Marks)

GENERAL STUDIES AND MENTAL ABILITY

1. General Science – Contemporary developments in Science and Technology and their implications including matters of every day observation and experience, as may be expected of an individual who has passed Intermediate and not made a special study of any scientific discipline.

2. Current events of National importance and the State of Andhra Pradesh.

3. History of India – emphasis will be on broad general understanding of the subject in its social, economic, cultural and political aspects with a focus on AP and Indian National Movement.

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PAPER-II (100 Marks)

GENERAL SCIENCE AND GENERAL MATHEMATICS (SSC Standard)

GENERAL SCIENCE (50 Marks)

1. **Source of Energy:** Renewable and Non-renewable sources of energy.
   a) Renewable sources: Solar energy (Solar Cooker, Solar water heater, Solar Cell); Wind energy, Hydro energy (Tides of Ocean, Hydroelectric), Geothermal wood, Biogas, Hydrogen and Alcohol.
   b) Non-renewable sources: - Fossil fuel (Coal, Petroleum and Natural gas), conditions for combustion choice of a good fuel, fuel efficiency, nuclear fusion and nuclear fission, chain reaction, nuclear reactor (basic principles; safety measures), advantages and hazards of nuclear energy, mangal Turbine (Fuel less turbine)- Principle, working and uses.

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   a) Life Processes such as nutrition, modes of nutrition - Autotrophic, heterotrophic, Parasitic and saprophytes.
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   a) Transportation in Plants and animals. (Water, minerals, food).
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   A) Reproduction and growth:
   i) Types of Reproduction:
   a) Asexual: Fission budding, regeneration, vegetative propagation in plants, cutting, grafting and layering, Parthenogenesis.
   b) Sexual reproduction and its significance- reproductive parts of plants, pollination and fertilization.
   c) Human reproductive system, mental and physical change during human development.

   B) Heredity and Evolution:
   a) Heredity and Variations,
   b) Physical basis of Heredity-chromosomes; D.N.A. (elementary knowledge), Genes, Sex determination.
   c) Elementary knowledge of evolution.

5. **Natural Resources:**
   a) **Metals:** Ores and minerals, metallurgy, Enrichment of ores, extraction of metal from ores, refinement and purification of metal with reference to Iron and aluminium, Activity series of metals, general properties and corrosion of metals, Alloys, Components, properties and uses of steel; stainless steel, Brass, magnalium, alloys of gold.
   b) **Non-metals:** Importance and general properties, method of preparation of hydrogen, properties and its uses, manufacturing of ammonia (Only reactions), properties and uses, sulphur - occurrence, extraction, properties (allotropy and effect of heat) and uses. Properties and uses of Sulphur dioxide, manufacture of sulphuric acid (Only reactions), its properties and uses.

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  a) Causes, prevention and control of environmental problems, Land, water, Air, noise pollution and accumulation of waste materials.
  b) Biodegradable and Non-biodegradable materials,
  c) Interaction between biotic and non-biotic components of ecosystem.
  d) Ecological balance, efforts and measures for conservation of environment.
  e) Process of water management and conservation:
     1) Rain water harvesting
     2) Ground water recharging
     3) Conservation of forests
     4) Land management and conservation
     5) Public awareness for environmental protection
     6) Green House effect
     7) Global warming
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  b) Study of botanical names and medicinal use of the following seasonal and perennial plants.

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Turmeric	Curcuma longa	Marua	Origanum majorana
Garlic	Allium sativum	Tulsi	Ocimum sanctum
Fenugreek	Trigonella foenum-graecum	Vacha	Achorus calamus
Touch- me- not	Mimosa pudica	Adusa	Adhatodavasica
Soya	Glycine max	Giloy	Tinospora cordifolia
Shatawar	Asparagus racemosus	Harjor	Cissus quadrangularis
Sarpgandha	Rauvolfia serpentina	Bryophytum	Bryophytumpinnatum
Isabgol	Plantago ovata	Bhui Aonla	Phyllanthus niruri
Dioscorea	Dioscorea pentaphylla	Castor	Ricinus communis
B. Perennial plants:			
Harad	*Terminalia chebula*	Harshinagar	Nyctanthus arbor-tristis
Baheda	*Terminalia bellirica*	Amaltash	Cassia fistula
Aonla	*Phyllanthus emblica*	Pomegranate	Punica granatum
Nirgundi	*Vitex negundo*	Sandal	Santalum album
Babool	*Acacia nilotica*	Nuxvom,	Strichnusnux-vomica
Neem	*Azadirachta indica*	Paras peepal,	Thespesia populnea
Sheesham	*Dalbergia sissoo*	Arjuna,	Terminalia arjuna
Catechu	*Acacia catechu*	Eucalyptus,	Eucalyptus
Karanj	*Pongamia pinnata*	Bel,	Aegle marmelos
Sweet Neem	*Murrayakoenigii*	Apamargh,	Achyranthes aspera
Kachnar	*Bauhinavariegata*	Bhringraj,	Eclipta alba
Peepal	*Ficus religiosa*	Kaner	Nerium oleander

9. a) The Universe - Solar system and exploring space - Solar System, planets, asteroids, comets and meteors; Earth origin, evolution and structure stars, constellations, milky way, galaxy, structure of universe and its theories.

b) Brief history of space explorations: - Elementary ideas about space crafts, different types of artificial satellites and their orbits, uses of artificial satellites in Communication, weather forecasting, remote sensing and space exploration.

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GENERAL MATHEMATICS (50 Marks)

1. ARITHMETICS:

a) Number System-Natural numbers, Integers.

b) Rational and Real numbers.

c) Fundamental operations, addition, subtraction, multiplication, division, square roots, Decimal fractions.

d) Unitary method-time and distance, time and work, percentages, applications to simple and compound interest, profit and loss, ratio and proportion, variation.

e) Elementary Number Theory – Division algorithm, Prime and composite numbers. Tests of divisibility by 2, 3, 4, 5, 9 and 11.

f) Multiples and factors, factorisation Theorem. H.C.F. and L.C.M. Euclidean algorithm. Logarithms to base 10, laws of logarithms, use of logarithmic tables.

2. ALGEBRA:

a) Basic Operations, simple factors, Remainder Theorem, H.C.F., L.C.M.

b) Theory of polynomials, solutions of quadratic equations, relation between its roots and coefficients (Only real roots to be considered). Simultaneous linear equations in two unknowns – analytical and Graphical solutions. Simultaneous linear in equations in two variables and their solutions.

c) Practical problems leading to two simultaneous linear equations or in equations in two variables or quadratic equations in one variable and their solutions.

d) Set language and set notation, rational expressions and conditional identities, laws of indices.

3. TRIGONOMETRY:

Sine x, Cosine x, Tangent x when $0° = x = 90°$ values of sin x, cos x and tan x, for x= $0°$, $30°$, $45°$, $60°$ and $90°$

Simple trigonometric identities. Use of trigonometric tables, Simple cases of heights and distances.

4. GEOMETRY:

i) Lines and angles, Plane and plane figures.

ii) Theorems on
   a) Properties of angles at a point.
   b) Parallel lines.
   c) Sides and angles of a triangle.
   d) Congruency of triangles.
   e) Similar triangles.
   f) Concurrence of medians and altitudes.
   g) Properties of angles, sides and diagonals of a parallelogram, rectangle and square.
   h) Circles and its properties including tangents and normals.
   i) Loci.

5. MENSURATION:

a) Areas of squares, rectangles, parallelograms, triangle and circle.

b) Areas of figures which can be split up into the figures (Field Book).

c) Surface area and volume of cuboids, lateral surface and volume of right circular cones and cylinders, surface area and volume of spheres.

6. STATISTICS:

a) Collection and tabulation of statistical data.

b) Graphical representation - frequency polygons, histograms, bar charts, pie charts etc.

c) Measures of central tendency.

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Scheme for Computer Proficiency Test

(As per G.O.Ms.No.26, G.A. (Ser.B) Dept., dt: 24.02.2023)

Scheme of the examination (Practical Type)					
Test	Duration (Minutes)	Maximum Marks	Minimum Qualifying Marks		
			SC/ST	B.C's	O.C's
Proficiency in Office Automation with usage of Computers and Associated Software.	60	100	30	35	40

Syllabus for Computer Proficiency Test

PART-A

1. **INTRODUCTION TO COMPUTERS:** Introduction to Computers - Components and their classification - Peripheral devices and their purpose. Input Devices - Keyboard, Mouse, Scanner, Lighten, Touch screens, Joystick, Micro phone, Scanner, Digital camera, Bar code reader, Biometric sensor Output Devices: Display devices, Printers, Monitor, Speaker, Plotter, Secondary Storage Devices – Feature- Driven Development (FDD), Magnetic tape, Universal Serial Bus(USB), Pen Drives, Disks - The Role of input Processing / output processing devices - Computing Concepts - Data - Information – Random Access Memory (RAM) – Read-Only Memory(ROM) - Control Unit - Memory Unit – Arithmetic Logic Unit(ALU).

2. **COMPUTER SOFTWARE TYPES:** System Software, Application Software, Embedded software, Proprietary Software, Open source software (their purpose and characteristics only).

3. **OPERATING SYSTEM:** Purpose of operating system, Single User and Multi User Operating Systems with Examples.

4. **WINDOWS OPERATING SYSTEM:** Interfacing Graphical User Interface (GUI), Differences between Character User Interface (CUI) and Graphical User Interface(GUI) - working With Files and Folders - More About Files - Running An Application Through The File Manager - Running an Application Through The Program Manager - Setting up of Printer, Webcam, Scanner and other peripheral devices,

5. **LINUX/MAC OS (only basic concepts):** Introduction to Linux - Features and advantages of Linux, File handling commands, directory handling commands - User Management - File permissions Macintosh Apple Computer (MAC) OS - Introduction - Advantages of Macintosh Apple Computer (MAC) OS . Basics commands

6. **INTERNET CONCEPTS (only basic concepts):** Minimum Hardware and Software Requirements for a system to use internet, Communication Protocols and Facilities - Various browsers - What is Internet Protocol(IP) Address - Steps required in connecting system to network - Uploading and Downloading Files from Internet

7. **ELECTRONIC MAIL (only basic concepts):** Sending and receiving mails, Basic E-Mail Functions, Using your word processor for E-mail, Finding E-Mail Address, Mailing Lists and lists Servers.

8. **WORLD WIDE WEB (only basic concepts):** WWW advantages of the Web - how to navigate with the Web - Web Searching.

PART – B

1. **OFFICE SUITE**: MSOFFICE or any open source office like Libre Office /Apache Open Office Neo office for Windows/Linux/Media Access Control Address (MAC)OS.

2. **GETTING STARTED WITH OFFICE:** Introduction to Office Software- Starting and Exiting the Office Applications - Introducing the Office Shortcut Bar - Customizing Office Shortcut Bar.

3. **FILE OPERATIONS IN THE OFFICE:** Common Office Tools and Techniques - Opening An Application - Creating Files - Entering And Editing Text - Saving Files - Opening Files - Closing a File - Exiting The Application - Managing Your files With The Office Applications.

4. **TOOLS IN THE OFFICE APPLICATIONS:** Key Combinations - Cut, Copy and Paste - Drag And Drop Editing - Menu Bars And Toolbars - Undo and - Redo - Spell Checking - Auto Correct - Find and Replace - Help And The Office Assistants - Templates and Wizards.

5. **WORD PROCESSING (MS WORD or its equivalent in Libre office** /Apache Open Office / Neo office for Windows/s/Linux/Mac OS): Starting Word

- Title Bar - Menu Bar - Format Bar - Standard Bar - Ruler - Workspace Area - Scroll Bar - Status Bar - Different Toolbars - Option a Menu Bar - Creating New Document When Word is Running - Opening Pre existing Documents When Word is Running - Designing Your Document - Typing Text - Selection text - Deleting Text - Formatting text and document - copying and moving - Saving Document - Page Setup - Properties of a document - Undo-Redo-Cut-Copy a Document - Pasting a Document - Print Preview - Printing - Select All - Find - Replace - Go To - Four Different View Of A Document - Normal, Web Layout, Print Layout, and Outline Layout- Document Map - Full Screen - Zoom - Objects - Page Break - Header and Footer - Page Number - Auto Format - Auto Text - Inserting Date And Time - Working With Header, Footers-

footnotes-Fields-Symbols-Caption Cross Reference-Index-Tabs-Table and Sorting - Working With Graphics - Inserting Pictures - Modifying Pictures - Word Art - Inserting Chart - Inserting Files - Hyper Linking - Bookmark - Using Different Fonts - Paragraph – Bullets Borders and Shading-Columns-Drop Cap-Theme-Change Case Background-Frames-Style-Spelling And Grammar - Set Language - Word Count - Auto Summarize - Auto Correct - Merge Document - Protect Document - Envelopes And Labels - - Templates, Wizards And Sample Documents - drawing Tables - Merge Cell - Spilt Cells - Spilt Table - Table Auto Format - Auto Fit - Sort - Formula - Arrange All-Split- Micro Soft Word Help - Macros - Custom Toolbars - Keyboard Shortcuts - Menus - Mail Merge.

6. **SPREAD SHEET (MS Excel or its equivalent in Libre Office / Apache Open Office / Neo office for Windows/s/Linux/ Maa OS)**:

Features Of Excel - Excel worksheet - Selecting Cell - Navigating With The Mouse And Keyboard - Entering And Editing Text - Text Boxes - Text Notes - Checking Spelling - Undoing And Repeating Action - Entering And Editing Formulas - Referencing Cells - Order Of Evolution in Formulas - Copying Entries And Equations To Minimize Typing - More Auto Fill Examples - Creating Custom Fill Lists Protecting And Un Protecting Documents And Cell - Creating A New Worksheet - Excel Formatting Tips And Techniques - Moving cell - Copying Cells - Sorting Cell Data - Insertion Cells Inserting As You Paste - Deleting Parts Of Worksheet - Clearing Parts Of A Worksheet - Excel Page Setup - Changing Column Width And Row Heights - Auto Format - Manual Formatting - Using style - Format Code Alter A Number's Appearance - Format Painter Speeds-Up Format Copying - Changing Font Size And Attributes - Adjusting Alignments - Cantering Text Across Column - Using Border Buttons And Commands - Changing Color And Shading - Inserting And Removing Page Breaks - Hiding Rows And Columns - Rearranging Worksheet - Entering Formula - Excel Functions - Inserting Rows And Columns - Saving A Worksheet - Printing A Worksheet - Printing Tips For Large Excel Project - Parts Of A Function - Functions Requiring Add-ins - Function Wizard - Example Of Functions By Category - Organizing Your Data - Excel's Chart Features - Chart Parts And Terminology - Instant charts with The chart wizard - Creating Chart On Separating Worksheets - Resizing And Moving Charts - Adding Chart Notes And Arrows - Editing Charts - Rotating 3-D Charts - Printing Charts - Deleting Charts Setting The Default Chart Type - Creating Trend Lines Data Map - Working With Graphics in Excel - Creating And Pacing Graphic objects - Resizing Graphs - Possible Sources Of Excel Graphics - Creating and Running Macro - Sorting Excel Data - Adding Subtotals To Databases - Customizing Excel - Customizing Workspace – Comma Separated Value (CSV) File format - Using Worksheet As Databases.

7. **PRESENTATION SOFTWARE (MS Power Point or its equivalent in Libre Office/Apache Open office/Neo office for Windows/s/Linux/Mac Os):** Introduction - Starting Presentation Software - Views in Presentation Software - Slides - Terminology - Color Schemes - Formatting Slides - Creating a Presentation - Using the Auto Content Wizard - Masters- - Using a Template - Creating a Blank Presentation - Working with Text in Power Point - Adding Slides Editing And Working Text - Working in Outlaying view – Spell checking - Finding And Replacing Text - Formatting Text - Aligning Text - Developing Your Presentation - Importing images From The Outside World - The Clipart Gallery - Drawing in Presentation software- Bringing A Presentation to Life - Inserting Objects in Your Presentation - Inserting A Picture - Working With Graphics - Multimedia in Power Point - Animating The Objects, Pictures, Graphics, - Enhancements to the Slide Show Showing Slides Out Of Order Printing Presentation Elements - Finalizing The Presentation - Assigning Transitions And Timings - Setting The Master Slide - Setting Up The Slide Show - Running The Slide Show.

Assessment Pattern:

Part-A: Test may be designed to assess the candidate by means of MCQs.

(20 %of Total Marks)

Part-B: A computer based assessment test where they need to:

1. Prepare a model document and organize the same in a formatted manner. This should cover evaluating the typing speed, organizing the document and covering several other aspects such as inserting tables, inserting Images/WordArt, mail merge, etc.)
2. Evaluating typing speed **(25% of Total Marks)**
   (This may be made mandatory for qualifying based on the norms existing)
3. Organizing and inserting different objects **(15% of Total Marks)**
4. Prepare an Excel Sheet to fill with data and format the sheet, merging/splitting cells, formulae for calculation in the cells, conditional formatting, preparation of different graphs based on the data. **(20% of Total Marks)**
5. Prepare a Power Point presentation using the standard layouts available and filling different slides with content (Formatted text, images, tables, transition effects, animation etc.). **(20%of Total Marks)**

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