Training Programme IT Course Contents 2021-22

IT COURSES

1. **Course Title** : **Computer Skills- MS Office, Power Point, Word and Excel (Advanced).**

2. **Date** : 19.04.2021 to 23.04.2021

3. **Duration** : 5 days

4. **Location** : Regional Training Institute, Shillong.

5. **Programme Background:** This training programme is being conducted based on projected training requirements of User Offices of RTI, Shillong.

6. **Learning Objectives:** The course aims to equip the participants with advanced knowledge in the use of MS Word Power Point and MS Excel.

7. **Programme Content and Structure:**

   Work in MS Word with paragraph formatting, page setup, section, header, footer, footnote and endnote. Working and modifying a table (Hands on session). Working with Mail merge, Start MS Power Point, creating a presentation, applying design, saving and opening a power point file, working with slide sorter, slide show and slide view (Hands on session). Start MS Excel and identify the various parts of workbook, entering data, basic edit, saving and retrieving file (Hands on session). Formatting cells, inserting, deleting rows and columns, changing columns width, working with series and range, writing simple formula and functions, linking different sheets (Hands on session). User defined functions, Numeric, Text, Conditional, Date and Time (Hands on session). Apply formula and functions, Goal seek, advance features including auditing, Conditional Formatting, Filters and advance Filters, Pivot tables (Hands on session).

8. **Methodology:** Lectures, Presentations, Interactive Sessions, Practical Exercises, Case Studies and Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.

10. **Additional Information:**

   i. **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' Group 'B' and Group 'C' officers/official (both serving and retired) from the IA&AD.

   ii. **Feedback on previous Course:** This course was conducted online and rated 4.08 on a scale of 1 to 5 by the participants.

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1. **Course Title** : **MS Excel**
2. **Date** : 03.05.2021 to 07.05.2021.
3. **Duration** : 5 days.
4. **Location** : Regional Training Institute, Shillong.
5. **Programme Background:** The training programme on "MS Excel" is being conducted based on projected training requirements of User Offices of RTI, Shillong.
6. **Learning Objectives:** The course will familiarize participants with concept of electronic workbook and help the participants to learn how to use a popular workbook programme for departmental applications.
7. **Programme Content and Structure:**
   - Start MS Excel and identify the various parts of workbook. Window and Excel window.
   - Distinguish between workbook and worksheet.
   - Enter values and labels, edit and format them.
   - Working with series, working with range.
   - Apply formula & Functions and Link different Sheets.
   - Goal seek, advance features including auditing, Protect and unprotect worksheet data.
   - Use validating rules while entering data.
   - Create and Save Graph.
8. **Methodology:** Lectures, Presentations, Interactive sessions, Practical Exercises and feedback through course end test.
9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of the RTI, Shillong.
10. **Additional Information:**
    i. **Faculty:** The faculty will draw from resource pool comprising of Group 'A' Group 'B' and Group 'C' officers and officials from the IA&AD.
    ii. **Feedback on previous Course:** This course was conducted online and rated 4.67 on a scale of 1 to 5 by the participants.

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1. **Course Title** : **E - Office**

2. **Date** : 31.05.2021 to 02.06.2021

3. **Duration** : 3 days.

4. **Location** : Regional Training Institute, Shillong.

5. **Programme Background:**.The training programme on "E-office" is being conducted based on projected training requirements of User Offices of RTI, Shillong.

6. **Learning Objectives:** The Course aim at enabling the participants to use E-Office for e-File management in regards to creating of e-files, receiving of letters, writing the notes, creating drafts etc.

7. **Programme Content and Structure:** Only e-File module of the E- office is used in this training. The File Management Systems – Receipts, Scanning and Diarization of letters. Forwarding, acknowledgement, pull back, copy of letters in e-File. Receipt, Pull up and put in file the letters received. Creating electronics files, receipt put-up/correspondence, Noting & forwarding in e- Files. Creating of drafts, Editing, approval, signing & dispatch etc. Park file, close/reopen file, references, searching and MIS reports.

8. **Methodology:** Lectures, Presentations, Interactive sessions Practical Exercises and feedback through course end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.

10. **Additional Information:**

    i. **Faculty:** The faculty will be drawn from resource pool comprising of NIC and Group 'A' & Group 'B' officers/official (both serving and retired) from the IA&AD.

    ii. **Feedback on previous Course:** The course is being conducted for the first time at RTI, Shillong.

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1. **Course Title** : **Audit in IT Environment (Hqrs Course).**

2. **Date** : 05.07.2021 to 09.07.2021

3. **Duration** : 5 days.

4. **Location** : Regional Training Institute, Shillong.

5. **Programme Background:** Proposed by Headquarters Office and accepted by the RAC, the training programme is being conducted based on projected training requirements of the user offices of RTI, Shillong.

6. **Learning Objectives:** The course will equip to the participants with knowledge of IT Audit, IT Controls and ability to apply the knowledge in field audit.

7. **Programme Content and Structure:**

   Understanding IT Environment, Challenges and Opportunities. Importance of Controls, Application Controls. Introduction to CAATs – IDEA and Excel. Excel Functions, Creating Projects, Import of Data from diverse formats, Field Statistics, Control Totals, History Property, Projects Overview. Importance of PDF/PRN Data, Importing data using ODBC, indexing, sorting data. Field manipulation in IDEA, Basic Data analysis in IDEA. Working with multiple databases – join, visual connector, append, compare. Commonly used @ functions in IDEA. Stratification, ageing, sampling. Exporting data from IDEA to other formats, Revision & Queries, Hands on sessions, Case Study – Selection of Vouchers, Way Forward – Overview of Tableau.

8. **Methodology:** Lectures, Presentations, Interactive sessions, Practical Exercises, Case studies and Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.

10. **Additional Information:**

    i. **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' Group 'B' and Group 'C' officers/official (both serving and retired) from the IA&AD.

    ii. **Feedback on previous Course:** This course was conducted online and rated 4.34 on a scale of 1 to 5 by the participants.

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1. **Course Title**　　　: **IT Audit (Basic).**

2. **Date**　　　　　　: 16.08.2021 to 20.08.2021

3. **Duration**　　　　: 5 days.

4. **Location**　　　　: Regional Training Institute, Shillong.

5. **Programme Background:** Proposed by Headquarters office and accepted by the RAC, the Training Programme is being conducted based on projected training requirements of users offices of RTI, Shillong.

6. **Learning Objectives:** The course will equip the participants with knowledge about IT/IT Controls and skills to conduct IT Audit.

7. **Programme Content and Structure:**

   Basic concepts of Hardware and Software, Networking, Basics of IT Audit, IT Controls and IDEA software.

8. **Methodology:** Lectures, Presentations, Interactive sessions and Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of the RTI, Shillong. This course is primarily for participants who would be utilized for IT Audit in field offices.

10. **Additional Information:**

    i.　**Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' and Group 'B' officers (both serving and retired) from the IA&AD.

    ii.　**Feedback on previous Course:** This course was conducted online and rated 4.57 on a scale of 1 to 5 by the participants.

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1. **Course Title** : **Introduction to Oracle-SQL**
2. **Date** : 06.09.2021 to 10.09.2021.
3. **Duration** : 05 days.
4. **Location** : Regional Training Institute, Shillong.
5. **Programme Background:** The training programme on "Oracle SQL is being conducted based on projected training requirements of User Offices of RTI, Shillong.
6. **Learning Objectives:** The course will enable the participants to query Oracle database effectively for departmental use.
7. **Programme Content and Structure:**
   ➢ Introduction to Oracle. Overview of Oracle server and its various object types.
   ➢ What is SQL, Role of Sql, Type of Sql commands, Logging in & logging out into Oracle Server.
   ➢ Writing SQL statement, Executing SQL statement, Comparison of SQL & SQL* plus, some important editing and file SQL plus commands.
   ➢ Data Type in Oracle Basic select statement. Different parts of the select statement. Using column aliases, Arithmetic operators, Concatenation operator, order by clause distinct, comparison.
   ➢ operators<=,!=, in, like, between, is null) and logical operator (and, or, not), Character & Date string. Updating and deleting records. Practical Exercises.
   ➢ Single row functions: character, Numeric, date functions, Conversion function including date format and date arithmetic. NVL and DECODE functions. Using aggregate functions, Group by and having clause. Practical Exercises.
   ➢ What is join? Different types; Equi join Non-Equi Join and outer join. Using group by and having clause with Join. Sub-queries returned single value & multiple values; Using group by and having clause with the sub-queries. Exercise.
   ➢ Create table, create table with constraints, Adding Records. Viewing tables from data dictionary. Practical Exercises.
   ➢ Altering table structure, Altering constraints & viewing constraints from data dictionary. Indexing, views, sequence and synonyms. Viewing from data dictionary. Practical Exercises.
   ➢ Introduction to PL/SQL Structure of PL/SQL. Identifiers — Variables, Constants, Reserved words, Literals, Declaration using %TYPE &

%ROWTYPE attributes. Data Types, Expressions & Comparison, Comments, Labels.

➢ If condition and dbms output. Writing simple program. Practical Exercises.

➢ Working with various Loops; while loop, for loop etc. Practical Exercises.

➢ Working with cursor and exception handling. Writing simple Trigger. Exercise.

8. **Methodology:** Lectures, Presentations, Interactive sessions Practical Exercises and feedback through course end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of the RTI, Shillong.

10. **Additional Information:**

   i. **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' and Group 'B' officers from the IA&AD.

   ii. **Feedback on previous Course:** The course was rated 4.70 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

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1. **Course Title**   :   **IDEA 10.4**
2. **Date**   :   25.10.2021 to 29.10.2021.
3. **Duration**   :   5 days.
4. **Location**   :   Regional Training Institute, Shillong.
5. **Programme Background:** This training programme is being conducted based on projected training requirements of User Offices of RTI, Shillong.
6. **Learning Objectives:** The course aims at enabling the participants to use IDEA Software for extracting data and analyzing data of Auditee organizations.
7. **Programme Content and Structure:**

    Basics of Data Structures. IDEA: An Overview. Getting started: Record Extraction, Field Summarization and Field Stratification. Essentials of Data Downloading (Practical Exercises). Use of IDEA features followed by Exercise to practice analysis function for checking duplicates, indexing, summarizing and checking field statistics (Practical Exercises). Exercise related with downloading of MS Access database file, creating of virtual fields, duplicate records detection and record extraction (Practical Exercises). Using @ functions in IDEA. Use of IDEA features followed by Exercise to practice IDEA features useful in conduct of financial audit (Practical Exercises).
8. **Methodology:** Lectures, Presentations, Interactive sessions Practical Exercises and Course-end test.
9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.
10. **Additional Information:**
    i.   **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' and Group 'B' officers both serving and retired from the IA&AD.
    ii. **Feedback on previous Course:** The course was rated 4.40 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

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1. **Course Title** : **Computer Networking.**
2. **Date** : 08.11.2021 to 12.11.2021
3. **Duration** : 5 days.
4. **Location** : Regional Training Institute, Shillong.
5. **Programme Background:** The training programme on "Computer Networking" is being conducted based on projected training requirements of User Offices of RTI, Shillong.
6. **Learning Objectives:** The course will enable the participants to define types of Computer Networking, its topologies, protocols, OSI, TCI/IP, DNS.
7. **Programme Content and Structure:**
   - Basic Networking Concepts. Introduction to Network, Data Transmission in a network, Transmission Modes & Speeds, Transmission Medium, Communication processors Network Topologies Protocols and Standards OSI Reference Model.
   - Concepts of LAN. Advantages and Disadvantages of LAN. Types of LAN. Different Topologies used in LAN.
   - WAN Internetworking technologies. WAN Utilization. WAN connections.
   - Data Communication. Switching, Hubs, Routers, Bridges.
   - Planning a TCP/IP Network. Using Public and Private Addresses. IP Addresses and Subnet Mask. Understanding IP Address Classes.
   - Planning a Name Resolution Strategy. DNS and NetBIOS. Understanding Domains. Understanding FQDN Notation.
   - Sharing files, printers and other resources using Windows.
   - Different OS in Network, Networking connection Types, Configure a DIAL-UP & Local Area connection in Windows File Systems.
   - Sharing files, printers and other resources, Passwords and Security.
8. **Methodology:** Lectures, Presentations Interactive sessions and feedback through course end test.
9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of the RTI, Shillong.
10. **Additional Information:**
    i. **Faculty :** The faculty will be drawn from resource pool comprising of Educational Institutions, NIC, HCL and Group 'A' & Group 'B' officers from the IA&AD both in service and retired.
    ii. **Feedback on previous Course:** The course was rated 4.20 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

1. **Course Title**   **:**   **IT Audit (Advanced).**

2. **Date**   **:**   22.11.2021 to 03.12.2021

3. **Duration**   **:**   10 days.

4. **Location**   **:**   Regional Training Institute, Shillong.

5. **Programme Background:** Proposed by Headquarters office and accepted by the RAC, the training programme on "IT Audit (Advanced)" is being conducted based on projected training requirements of User Offices of RTI, Shillong.

6. **Learning Objectives:** The course aims to give participants great exposure to IT Audit, use of CAATs for data downloading and data analysis, beside the ability to carry out IT Audits more effectively through a better understanding of the important business models, contracts, SLAs, e-Governance and IT Security.

7. **Programme Content and Structure:**

   Definition of IT Audit, Objectives of IT Audit, Mandate for IT Audit, Steps in IT Audit, IT Audit Process-Planning. Definition of IT Controls: Controls in IT Environment. General IT Controls, Audit of Application Controls (Case Studies). IT Security , IT Act 2000, E-Governance-Definition, Objective of e-governance, System Development Methodology. Import/Export file in MS-Excel and MS-Access. IDEA. Starting IDEA, Importing different formats of file in IDEA (Practical Exercises). Analyzing imported master file. File Stratification. Field summarization, Aging, Extraction (Practical Exercises). More extraction, duplicate keys, gap detection, sort, index, field manipulation. Extraction using @ function (Practical Exercises).

8. **Methodology:** Lectures, Presentations, Interactive sessions, Practical Exercises, Case studies and Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong (who had undertaken training on IT Audit (Basic). This course is primarily for participants who would be conducting IT Audits in field offices.

10. **Additional Information:**

    i.   **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' and Group 'B' officers (both serving and retired) from the IA&AD.

    ii.   **Feedback on previous Course:** The course was rated 4.80 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

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1. **Course Title**   :   **Big Data Analytics (Using Tableau and KNIME).**

2. **Date**   :   13.12.2021 to 17.12.2021

3. **Duration**   :   5 days.

4. **Location**   :   Regional Training Institute, Shillong.

5. **Programme Background:** This training programme is being conducted based on projected training requirements of User Offices of RTI, Shillong.

6. **Learning Objectives:** The course aims at enabling the participants with knowledge on the use of Tableau and KNIME softwares for Big Data Analytics.

7. **Programme Content and Structure:**

    Basic Concepts of Data, Types of data string, Numeric data, types of analytics. Descriptive Analytics; Statistical Approaches in Analytics: Central Tendencies (Mean, Median, Mode). KNIME: A Broad overview - Build a basic workflow. Data downloading sorting errors; property tax. Tableau: Introduction to the tableau software and its different areas, Data Downloading, Database Connectivity (Hands on Session). Manipulation, Visualization, Calculated fields, Filters, Hierarchy, Dashboards files Tableau Exercise/ Case Study: Analysing data, Deriving Insights, Identifying risk areas, building dashboards. Other features in Tableau: Story and distribution of workbook. Principles of visualization, Consolidation of Concepts, Data Analytic Principles and Approaches.

8. **Methodology:** Lectures, Presentations Interactive sessions and feedback through Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.

10. **Additional Information:**

    i.   **Faculty :** The faculty will be drawn from resource pool comprising of Professors and Lecturers of Educational Institutions, Professionals of NIC and Group 'A' & Group 'B' officers from the IA&AD Both in services and retired.

    ii.   **Feedback on previous Course:** The course was rated 4.40 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

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1. **Course Title** : **Public Financial Management System (PFMS), use of BEMS, iBEMS/EIS/PF GeM and other softwares used by Hqrs and field offices and maintenance of Bhavishya Nidhi/Portal**

2. **Date** : 10.01.2022 to 14.01.2022

3. **Duration** : **5** days.

4. **Location** : Regional Training Institute, Shillong.

5. **Programme Background:** This training programme is being conducted based on projected training requirements of User Offices of RTI, Shillong.

6. **Learning Objectives:** The course aims to equip the participants with knowledge of Public Financial Management System (PFMS), use of BEMs, iBEMS/EIS/PF, GeM eOffice and Bhavishya Nidhi system and softwares.

7. **Programme Content and Structure:**

   Introduction to PFMS, Registration and Mapping, Programme Division (DDO's role). Maker, Checker : Bill processing – Accounting Reports. Employee Information System (EIS). Practical session on Function of Programme Division, Maker-checker, Bill Processing – Accounting – Reports and Employee Information System (PAO). Practical session on Employee Information System. Overview of GeM and objectives, GFRs 2017, Rule 149 for GeM, Workflow and Timeline of Gem, Authorisation of Primary user and Secondary users. Registration of organization, Creation of User Accounts, activation, Transfer. Important terms and conditions for Gem, placement of order for goods, receipt of goods accepting the goods and issuing CRAC on GeM portal, procedure for payment, creation and finalization of Bid and Reverse Auction on GeM. Placement of order for services with terms and conditions. Introduction to e-Office and Bhavishya Nidhi/Portal.

8. **Methodology:** Lectures, Presentations, Interactive sessions, Practical Exercises and feedback through Course-end test.

9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.

10. **Additional Information:**

   i. **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A' Group 'B' and Group 'C' officers and officials from the IA&AD.

   ii. **Feedback on previous Course:** The course was rated 4.10 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.

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1. **Course Title** : **Use of VLC Software for Audit.**
2. **Date** : 14.02.2022 to 18.02.2022.
3. **Duration** : **5** days.
4. **Location** : Regional Training Institute, Shillong.
5. **Programme Background:** This training programme is being conducted based on projected training requirements of User Offices of RTI, Shillong.
6. **Learning Objectives:** The course will enable the participants to use VLC Data for audit purposes.
7. **Programme Content and Structure:**

   Overview of VLC Package. Master Module, Compilation Module, Treasury Module, Book1, Book2 and Book3 Module, Works Module. Accounts Current Module, Pension Compilation Module, Loan Compilation Module, Security Module, Miscellaneous Module, Audit Module. Overview of VLC Package, Source of VLC data. Categorization of Vouchers in VLC Package. Different types DDO's. Various Classifications of Vouchers. Audit Module. Use of Voucher Query Screen (Demonstration and Practical use). Navigate to Voucher for details query. Navigate to Forest module for details query. Navigate to Works module for detail query. Various Audit Module Reports. Criterion Based Account Consolidation Report (Receipt & Payment). Voucher listing based on Exception Condition. Stratified Voucher Sampling. Profile on Schemes and Project Expenditure (Scheme-wise). Profile of Schemes and Project Expenditure (Grant –wise). Categorization of Expenditure under Estt/Non-Estt. Scheme wise Work Reports. Querying VLC data using Oracle SQL Command.
8. **Methodology:** Lectures, Presentations, Interactive Sessions, Practical Exercises and Course-end test.
9. **Target Participants:** Group 'B' and 'C' officers/officials of the user offices of RTI, Shillong.
10. **Additional Information:**
    i. **Faculty:** The faculty will be drawn from resource pool comprising of Group 'A', Group 'B' and Group 'C' officers/officials (both serving and retired) from the IA&AD.
    ii. **Feedback on previous Course:** The course was rated 4.20 on a scale of 1 to 5 by the participants during the year 2019-20, when it was last conducted.