**Syllabus on**

**Special Basic Computer Learning Course**

**for SSC level**

**National Academy for Computer Training And Research (NACTAR)**

**Bogura**

**Special Basic Computer Learning Course for SSC level.**

**Number of Classes = 20 days**

**Total Hours = 60 Hours  
Class Time : 3 hours /day**

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| **Sl.**  **No** | **Topic** | **Hours** |
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| 1 | **Information and communication technology. World and Bangladesh perspective:**  Data, Information, Information technology, communication technology, types of Information and communication technology, Global village, Employment, Education, Health care and Education, Research, office, Residence, Business, News, Types of E-commerce, Entertainment and Social Communication, Cultural Exchange, Virtual Reality, Effect and uses of Virtual Reality, Expert System, Robotics, Internet of Things-IOT, Cryosurgery, Space Exploration, Biometrics, Bioinformatics, Genetic Engineering, Nanotechnology, Software piracy, Cyber-attack, Vishing, Plagiarism. | 6 hours |
| 2 | **Data Communication, Element of Data Communication system, Data:**  Data Communication, Data Communication System, Concept of Data Communication System, Concept of Data Communication ,Bandwidth, Method of Data Transmission, Data Transmission Mode, Data Communication Medium, Wired Medium, Wireless Communication Medium, Bluetooth, WiFi, WiMAX, Mobile Communication, Characteristics of Mobile Phone, Computer Networking, Concept of Network, Types of Computer Network, Modem, Hub, Switch, Bridge, Router, Gateway, Concept of Network Topology and Classification, Cloud Computing. | 6 hours |
| 3 | **Number system and Digital device:**  History of Inverting Numbers, Number system, Classification of Number system, Conversion of Numbers, Binary Addition, Signed Number, 1’s and 2’s complement, Computer Coding, Boolean Algebra, Boolean Postulates, Duality Principle, Boolean Theorems, Truth Table, De-Morgan’s Theorem, Simplification of Boolean Equation, Concept of Logic gate ,Classification and description, Encoder, Decoder, Half and Full Adder, Binary Adder, Register, Counter. | 12 hours |
| 4 | **Introduction to web design and HTML:**  Concept of Webpage design, Webpage, Website, Web Portal, Server and Client Computer, Web Browser, Search Engine, Types of Web site, IP Address, Domain Name, Concept of Website Structure and Classification, Concept of HTML, Advantage and Disadvantage of HTML, HTML Tag (Heading tag, Formatting Tag, Font color, Image tag, Hyperlink, Media, List, Table) Website Design and Development, Website Publishing, Hosting. | 9 hours |

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| **Sl.**  **No** | **Topic** | **Hours** |
| 5 | **C Programming:**  Computer Programming, C Programming, Program Translator (Assembler, Compiler, Interpreter), Concept of Algorithm and Flowchart, Organization of programs, Step of Programming, Structure of C program, Data type, Constant, Variable, Keywords, C programming Operator, Conditional Statement, Loop, Array, Function, Pointer. | 18 hours |
| 6 | **Concept of Database:**  Data, Database, Concept of Database Management System, Client, Server, Database Table, Data Type of Database Table, Concept of SQL, Query, Sorting Database, Indexing Database, Relational Database Management System (RDBMS), Key (Primary, Composite Primary, Foreign), Concept of Database Relationship and Classification. | 9 hours |

Prepared By:

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| **ক্রমিক** | **প্রশিক্ষকগণের নাম** | **পদবী** | **স্বাক্ষর** |
| ১। | জনাব মো আব্দুল আলীম | প্রশিক্ষক, নেকটার, বগুড়া |  |
| ২। | জনাব ইসতিয়াক আহম্মেদ | এমএসসি ইন সিএসসি, অতিথি শিক্ষক  নেকটার, বগুড়া |  |
| ৩। | জনাব সুজন চন্দ্র রায় | প্রভাষক, সিএসসি, রংপুর ইঞ্জিনিয়ারিং কলেজ অতিথি শিক্ষক নেকটার, বগুড়া. |  |

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