Syllabus for Technical Assistant (Anthropology)
Difficulty level: - Graduation Level

A. **General Intelligence and Reasoning:** It would include questions of both verbal and non-verbal type. This component may include questions on analogies, similarities and differences, space visualization, spatial orientation, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning and figural classification, arithmetic number series, non-verbal series, coding and decoding, statement conclusion, syllogistic reasoning etc. The topics are, Semantic Analogy, Symbolic/Number Analogy, Figural Analogy, Semantic Classification, Symbolic/Number Classification, Figural Classification, Semantic Series, Number Series, Figural Series, Problem Solving, Word Building, Coding & de-coding, Numerical Operations, symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole/ pattern- folding& un-folding, Figural Pattern-folding and completion, Indexing, Address matching, Date & city matching, Classification of centre codes/roll numbers, Small & Capital letters/numbers coding, decoding and classification, Embedded Figures, Critical thinking, Emotional Intelligence, Social Intelligence

B. General Awareness including current affairs:

Questions in this component will be aimed at testing the candidates' general awareness of the environment around him and its application to society. Questions will also be designed to test knowledge of current events and of such matters of every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighboring countries especially pertaining History, Culture, Geography, Economic Scene, General Policy & Scientific Research

C. Quantitative Aptitude:

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D. English Language:

Candidates' ability to understand correct English, his basic comprehension and writing ability, etc. would be tested

E. ICMR Related:
- History of ICMR
- Leadership of ICMR
- Institutes and its Location.
- Mandate, scope
- IJMR- Indian journal of medical research
- About Going Viral Book.
- Landmark achievements in past
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F. Anthropology:

Unit 1: Meaning and scope of social/cultural anthropology, physical/biological anthropology and prehistoric anthropology

Unit II: Family, marriage and kinship

Unit III: Culture – its concept, characteristics and components

Unit IV: Indian anthropology – Indian society and culture, traditional Indian social system and family, Indian village communities and caste system

Unit V: Indian tribal populations – racial and linguistic classification, tribal development and constitutional safeguards, ethnomedicine

Unit VI: Cultural chronology – Paleolithic, Mesolithic and Neolithic cultures in India

Unit VII: Proto-historic periods – Sindhu/Indus Valley civilization, copper, bronze and iron ages in India

Unit VIII: Theories of organic evolution

Unit IX: Man's place in the animal kingdom

Unit X: Hominid evolution – including Australopithecus, Homo erectus, Neanderthal, etc.

Unit XI: Biological concept of racism, racial elements in the Indian population and major races in India

Unit XII: Basic human genetics – Mendelian principles and inheritance of common genetic diseases

Syllabus for Technical Assistant (Computer Science/Information Technology)
Difficulty level: - Graduation Level

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F. Computer Science/Information Technology:

Unit-I: Computer Organization: - Functional blocks of Digital Computer – Stored program concept – Fixed-point, Floating-point number representations – Instruction formats - Addressing modes– Memory hierarchy – Virtual memory, Associative memory – Cache memory – I/O Organization – Modes of data transfer –Programmed I/O, DMA, Interrupt initiated I/O–Pipeline and Vector processing– Flynn's classification.

Unit-II: C Programming and Data Structures: – Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.

Unit-III: Computer Network: - OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuit switching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email, IP address classes, IP Sub-netting, Linux commands.

Unit-IV: Operating Systems: - Operating System concepts, Services, Types, System calls– Process Management– CPU scheduling algorithms: FCFS, SJF, Round Robin, Priority, Multilevel scheduling–Threads– Semaphores - Inter Process Communication – Deadlocks - Memory Management – Overlays, Paging, Segmentation, Virtual memory, Page replacement algorithms: FIFO, LRU, Optimal –Thrashing - Disk scheduling - Disk scheduling algorithms: FIFO, SSJF, SCAN, CSCAN – File management– file operations, access methods, directory structure.

Unit-V: Database: - ER-model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.

Unit-VI: Object Oriented Programming Through C++: - Concept of OOPs – classes and objects – Constructors and destructors –Function overloading and Operator overloading – Inheritance types -Virtual functions – friend functions –inline functions -this pointer–I/O manipulators– File and I/O functions –Templates.

Unit-VII: Java Programming: - Java – data types, variables, operators, arrays – Classes and Objects – Methods – Constructors – Method overloading, Method overriding–Static final members-Inheritance–super, final keywords – Interfaces –Packages- Exception handling - Multithreading –Applets – AWT –Event handling - JDBC – Servlets.

Unit-VIII: Internet Programming: - Internet fundamentals – HTML, Tags, Attributes, Formatting text – Cascading Style Sheets - Webservers-JavaScript–data types, Operators–control structures–procedures, functions and arrays – PHP – data types, variables, operators, control structures, arrays, functions, concept of accessing databases– sessions and cookies, Working with files and Directories Database Connectivity with MySQL, Exception Handling.

Unit-IX: Data backup, Data security, Server Management, Data retrieval, FTP Management

Unit-X: Algorithm: Searching, sorting, hashing. Asymptotic worst-case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph traversals, minimum spanning trees, shortest paths

Unit-XI: Mobile Computing, Introduction to Android Operating system, User interface components, Persistent storage, Secure and retrieving data, Grid and Table Layouts.

Syllabus for All Technician-1 Posts
Difficulty level XIIth Standard

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Syllabus for All Lab Attendant-1 Posts
Difficulty level Xth Standard

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