

Part—II : Personality test carrying a maximum of 100 marks on the basis of the candidates who qualify on the basis of written examination.

2. The following will be the subjects for the written examination :

Subject	Duration	Maximum marks
SECTION--I		
1. General ability test (Part A—General English) (Part B—General knowledge)	2 Hours	100
Note : Equal number allotted to each part of this paper.	2 Hours	200
2. Electrical/Mechanical/Electronics/Tele-Communication/Computer Engineering.		
	Total :	<u>300</u>

3. In personality test, special attention will be paid to assessing the candidate's capacity for leadership, initiative and intellectual curiosity, tact and other social qualities, mental and physical energy and integrity of character.

4. Conventional papers must be answered in English. All question papers will be set in English only.

5. Candidates must write the papers in their own hand. In no circumstances, will they be allowed the help of a scribe to write the answers for them.

6. Standard of the questions of General English will be that Senior Secondary (10+2) standard whereas that of conventional papers in various subjects would be that of conventional papers in various subjects would be that of Diploma level in relevant Engineering disciplines. There shall be no practical examination in any of the subjects.

7. The Commission have discretion to fix qualifying marks in any or all the subjects of the examination.

APPENDIX

Syllabus

1. General ability Test :

Part (A) : General English—The question paper in General English will be designed to test the candidate's understanding of English and workmanlike use of words—Level—Senior Secondary (10+2).

Part (B) : General knowledge—The paper in General studies will include knowledge of current events and of such matters as of everybody's observation and experience in their scientific aspects. The paper will also include questions on History of India and Geography.

2. Conventional paper in relevant Engineering Subjects :

COMPUTERS

PART—I

1. Electronics

solid state devices : Physics, characteristics and model logic design, Binary arithmetic, Boolean algebra, circuit minimization, combinational and sequential circuits, flip flops, counters and shift registers.

2. Computer Programming

Computer programming in FORTRAN AND PASCAL, syntax and Semantics, variable, control flow, Arithmetic and Boolean expression, structured programming, subprogramming.

3. Data Structures

array, stack, queue, linked lists, tree Binary tree, B-tree, sorting techniques.

4. Data Processing

Usage of popular data processing programmes i. g. DBASE AND LOTUS etc., various commands, functions and programming.

PART—II

1. Microcomputer

Organisation and programming 8 bit microprocessor, memory and CPU of microcomputer, interfacing memory and I/O devices microprocessor support chips, Microprocessor Development tools, microprocessor based system design and application.

2. Design and Maintenance of computer Installation

Component and accessories of micro, mini and Mainframe computer room layout and space design.

Air conditioning and dehumidifier requirement, electrical work power requirements, electrical installations, isolation earthing, protection, servo stabilizers, CVT, UPS, inverter, computer installation, start up and shutdown process, virus detection and protection.

3. Peripheral devices and Fault Diagnosis

Input devices e.g: Key board, mouse, joystick, lightpen, digitiser, scanner, output devices, e.g. VDU, Dot matrix printer, line printer laser printer, inkjet printer, thermal printer, plotter, Hard disk Drive, Floppy disk Drive. Trouble shooting process, various diagnostic tools, maintenance checklist, reliability.

4. Programming languages and Algorithms

Performance analysis of sorting algorithms, e.g: bubblesort, selection sort, insertion sort, quicksort, heapsort, and merge sort. Search algorithms, graphs, shortest path, transitive closure. Block structured languages, design principles, abstraction parameter passing, recursion, functional languages, design philosophy of PASCAL.

