Annexure I

GENERAL KNOWLEDGE - BOTH FOR OPEN AND DEPARTMENTAL CANDIDATES

1. **GENERAL SCIENCE**: It will cover general appreciation and understanding of science including matters of everyday observations and experience as may be expected of a well-educated person who has not made any special study of any scientific discipline. The questions shall be from topics- in Physics, Chemistry and Biology viz. Scientific Instruments, Inventions and Discoveries. Scientists and their contributions, Human Physiology, Diseases and their cause, cure and prevention, Diet and Balanced diet, Human Genetics, Animals, Mammals and Birds, Environment and Ecology, Elements and Compounds. Acids, Bases and Salts and allied subjects, Motion, Newton’s Laws of motion – Properties of Matter, Electricity, National Laboratories and other related topics. All these topics will be of basic nature.

2. **HISTORY OF INDIA**: Dates and events of Indian History from Indus Valley Civilisation to the present day Indian modern administration.


4. **ECONOMICS AND COMMERCE**: Agriculture, Major crops and crop pattern in India, Industrial Development, Major, Medium, Small Scale and Cottage Industries of Tamil Nadu Village and Rural Development in India. Housing, Drinking water and other development schemes – price policy, inflation, population and unemployment problems, imports and exports Industrial development and five year planning.

5. **INDIAN POLITY**: Indian Constitution, Salient Features, Citizenship, Elections, Parliament and State legislature, Executive, States, Judiciary system, Local Self- Governments, Centre-State Relations, Language Policy and Foreign Policy.

6. **CURRENT EVENTS**: Latest development in Science and technology, political developments in India, new developments in Trade, Transport and communication, historical events. Fine Arts like dance, drama, films, painting, major literary works, Games and Sports, National, International awards, National and International organizations, Abbreviations, Who is Who, Books and Authors, General Technology, India and its Neighbours, present day India and other related topics. Arts, Literature, Culture of India and Tamil Nadu.

TECHNICAL - BOTH FOR OPEN AND DEPARTMENTAL CANDIDATES

UNIT 1

**ELECTRONIC DEVICES AND CIRCUITS**

Semiconductor, intrinsic and extrinsic N type & p type, PN junction diode, zener diode, Rectifier, Bipolar Junction, Transistor, oscillators, Field effect Transistor, Unijunction Transistor, SCR, DIAC, TRIAC & MOSFET, Opto Electronic Devices and wave shaping circuits, BJT Amplifier, FET Amplifier, Feedback amplifier, Oscillator, IGBT, MOSFET, Converter and choppers., Inverters, PLC, DCS.
UNIT – II
ELECTRICAL CIRCUITS AND MACHINES

UNIT – III
MICRO ELECTRONICS
Number System, Boolean Algebra and logic gates, Digital logic families, combinational circuits, sequential circuits, operational amplifier and its application, Phase locked loop, Digital to Analog converter, Analog to digital converter, IC Timer.

MICROPROCESSOR AND ITS APPLICATION

UNIT – IV
NETWORK, ANTENNA AND PROPAGATION

UNIT – V
COMMUNICATION ENGINEERING AND SYSTEM

UNIT VI
PROGRAMMING AND APPLICATION OF COMPUTERS

PROGRAMMING IN “C”