SCHEME FOR DEPUTY MANAGER II IN ELCOT

MAIN EXAMINATION

Paper – I  [Degree Standard / Objective Type]
Covering all the three subjects : 200 items / 300 Marks / 3 Hours
i. B.E in Electronics and communication
ii. B.E in Computer Science
iii. B.Tech in Information Technology

Paper – II  [Degree Standard / Objective Type]
Covering all the three subjects : 200 items / 300 Marks / 3 Hours
i. B.E in Electronics and communication
ii. B.E in Computer Science
iii. B.Tech in Information Technology

Paper – III  [Degree Standard / Objective Type]
Engineering Aptitude with General Studies : 200 items / 300 Marks / 3 Hours
Engineering Aptitude (150 items)
1. Quantity / Numerical Ability
2. Data Interpretation
3. Logical Reasoning
General Studies (50 items)

Interview & Records - 120 Marks

Total Marks = 300 + 300 + 300 + 120 = 1020

Minimum Qualifying Marks
OC - 408
Other than OC - 306
UNIT I: BASIC ELECTRONICS


UNIT II: NETWORKS

OSI reference model - layers and duties- TCP/IP reference model – layers and duties. Physical layer- general description, characteristics, signaling,media types, topologies, Modulation,Frequency spectrum,Multiplexing, Encoding techniques, DTE, DCE, examples of physical layer (RS232C, ISDN, ATM,SONET)

Logical link control Functions- Framing, Flow control , Error control: CRC, LLC protocols:- HDLC, P to P. Medium access layer:- Random access, Controlled access, Channelization, IEEE standards:- 802.3, 802.4 802.5 and 802.11., Interconnection devices- Repeaters, Hubs, Routers/switches- Gateways and VLAN.

Circuit switching, packet switching, message switching, Internet protocols- IPV4- Packet format-IP addressing-Subnetting-Classless interdomain routing(CIDR), IPV6, ARP, RARP, ICMP, IGMP, VPN. Network Routing Algorithms: - Distance vector routing-RIP,Link State Routing(OSPF)-Path Vector Routing (BGP), Dijikstra’s, Bellaman Ford, Congestion control algorithms.

User datagram protocol (UDP), Reliable data transfer, Transmission control protocol ( TCP)-Flow control- Congestion control- HTTP, FTP, TELNET, Email, DNS
UNIT III: INFORMATION SECURITY AND DIGITAL SWITCHING


UNIT IV: EMBEDDED SYSTEMS

UNIT I : OPERATING SYSTEMS


UNIT II : DATABASE MANAGEMENT SYSTEMS


UNIT III : PROGRAMMING IN C AND C++

UNIT IV: CLOUD COMPUTING AND VIRTUALIZATION

TAMIL NADU PUBLIC SERVICE COMMISSION

SYLLABUS FOR THE POST OF DEPUTY MANAGER II- ELCOT

Paper – III: ENGINEERING APTITUDE with GENERAL STUDIES
(Degree standard / Objective Type)  

ENGINEERING APTITUDE: (150 QUESTIONS)

**UNIT-I - Quantity / Numerical Ability:** Numerical computation, numerical estimation, numerical reasoning; Number system; Integer Number Sequences, Rational Number Sequences, Arithmetic Sequences, Geometric Sequences; Square Numbers, Cube Numbers; Fibonacci Series; Polynomials; Algebra; Geometry - EUCLID’S GEOMETRY, LINES AND ANGLES, TRIANGLES, QUADRILATERALS, CIRCLES, COORDINATE GEOMETRY, AREAS OF PARALLELOGRAMS AND TRIANGLES, SURFACE AREAS AND VOLUMES; Probability, Permutation combination; Mensuration, Arithmetic mean, Geometric mean, Harmonic mean, Median, Mode, Variance, Standard Deviation; Time and work; Averages, Percentages, Profit and loss; Quadratic and linear equations; Relation and Functions; Vectors; HCF & LCM, Logarithm;

**UNIT-II - Data Interpretation:** Interpretation and analysis of data based on text, tables, graphs (line, area), charts (column, bar, pie), venn diagram;

**UNIT-III - Logical Reasoning:** Clocks, calendars, binary logic, seating arrangement, logical sequence - Logical Number, Alphabetical, Diagrammatic; Assumption, Premise, Conclusion, Linear and matrix arrangement, Puzzles - Classification, Comparison, Sequential, Selection, Family, Jumbled puzzle; Dice, Visual Reasoning, In alphabetical or miscellaneous, In coding decoding, In blood relation, In direction and distances, In order and ranking, Data sufficiency, Statement, In syllogism

GENERAL STUDIES (50 QUESTIONS)

**UNIT - IV. Current Events**


**Political Science** - India’s foreign policy - Latest court verdicts – public opinion - Problems in conduct of public elections- Political parties and political system in India- Public awareness & General administration- Role of Voluntary organizations & Govt.-Welfare oriented govt. schemes, their utility.

**Geography** - Geographical landmarks-Policy on environment and ecology.


UNIT – V History and culture of India - Pre-historic events - Indus valley civilization - Vedic, Aryan and Sangam age - Maurya dynasty - Buddhism and Jainism - Guptas, Delhi Sultans, Mughals and Marathas - Age of Vijayanagaram and the bahmanis - South Indian history - Culture and Heritage of Tamil people - Advent of European invasion - Expansion and consolidation of British rule - Effect of British rule on socio-economic factors - Social reforms and religious movements - India since independence - Characteristics of Indian culture - Unity in diversity - race, colour, language, custom - India as secular state - Organizations for fine arts, dance, drama, music - Growth of rationalist, Dravidian movement in TN - Political parties and populist schemes - Prominent personalities in the various spheres - Arts, Science, literature and Philosophy - Mother Teresa, Swami Vivekananda, Pandit Ravishankar, M.S.Subbulakshmi, Rukmani Arundel and J.Krishnamoorthy etc.


UNIT – VII - INDIAN NATIONAL MOVEMENT - National renaissance - Early uprising against British rule - 1857 Revolt - Indian National Congress - Emergence of national leaders - Gandhi, Nehru, Tagore, Netaji - Growth of militant movements - Different modes of agitations - Era of different Acts & Pacts - World war & final phase struggle - Communalism led to partition - Role of Tamil Nadu in freedom struggle - Rajaji, VOC, Periyar, Bharathiar & Others - Birth of political parties / political system in India since independence.