# **Syllabus**

### 1. VSJE - Electrical

Basic of Electrical Engineering, Power System Planning Engineering, Power system design and Engineering, AC and DC extra High Voltage Transmission and network. Transmission lines and substation design and equipments. Electrical material, D.C Battery System, Relay and Protections System, SCADA and latest Electrical Equipments and smart grid technology, Basic knowledge of Information technology etc. pertaining to transmission wing, as well as General Knowledge and English language approximately in proportion of 80% and 20% respectively.

## 2. VSJE - Civil

Basics of Civil Engineering, Soil Mechanics. Designs and Construction of buildings which includes RCC raft foundation/ pile foundation, Building and steel super structures, design of buildings, water supply system and drainage systems, construction of transmission tower foundations and transmission colonies, roads, Basic knowledge of Information technology etc, as well as General Knowledge and English language approximately in proportion of 80% and 20% respectively.

## 3. PO I

Basic of Electrical Engineering, AC and DC extra High Voltage Transmission and network, Transmission Lines and Sub – stations, Operation and basic knowledge of S/s. equipment like Transformer, breaker CT/PT, isolater, etc., DC battery system, relay and protection system, basic safety and operational knowledge of S/s. and transmission lines, as well as General Knowledge and English language approximately in proportion of 90% and 10% respectively.

### 4. Trainee Junior Programmer

- 1. Fundamentals of Computers (Operating System, Data Structures, DBMS, Algorithms, Flow Charts etc.).
- 2. Middleware Stack, ERP Fundamentals, Payment Gateway, SMS Gateway Interface.
- 3. Mobile Application Development (Android Programming).
- 4. Deployment of Application on various platform, Build and Release on Various Platforms, version control fundamental.
- 5. Web programming (PHP, JSP, JavaScript, HTML5, CSS3, XML, JSON).
- 6. Basics of SQL, SQL Database Configuration & Scripts (MySQL, oracle, MSSQL).
- 7. Basic Fundamental of Computer Network, LAN, WAN, MPLS, Scattered Cabling.

- 8. IP Routing, Sub –netting, Super-netting, Classless Addressing, NAT, Socket, Interface, Routing Protocol.
- 9. Basic of Linux Networking, Configuration of DNS, DHCP, Apache Server, Samba Server, proxy server, FTP server, Web server
- 10. Working with Windows server, Linux Server, sharing managing other users and components of network, Active Directory Configuration, IIS Configuration, Windows 2012/2016 server, System Configuration, Single Sign on Configuration.
- 11. Configuration of VPN, Configuration of Wireless Network Devices, Firewall/UTM
- 12. Interconnecting Network Devices, Network Firewall Configuration on Devices, Configuration of Access List, Authentication Server, Router Security and Packet Filtering.
- 13. Network Troubleshooting, NMS, EMS suite Configuration operation, RADIUS / TACACS.

as well as General Knowledge and English language approximately in proportion of 80% and 20% respectively.