

Syllabus for the Written Exam for the Post of Sr. Manager (GSWAN)
(Advt. No; GIL/201718/2)

- **Networking (SWAN):**

The OSI model: Transmission media (Twisted – pair, Coaxial, Optical Fiber); data communication, multiplexing (FDM, WDM, TDM) ; Packet switching , circuit switching, Network architecture and topology – LAN, MAN, SWAN, WAN; TCP/IP; point-to-point protocol; Boarder Gateway protocol; voice over IP (VoIP); ISDN, Virtual Private Network, Routers, Switches, Bridges; Routing protocols; Wireless LAN, Wi-Fi; Network security and reliability, Firewall, Network Programming and Internetworking Technologies, Network Monitoring tools and techniques.

- **Data Centre:**

Data storage, Data availability, Data management; Cloud Infrastructure, Virtualization, Pipelining; Public cloud, private cloud, hybrid cloud; Business data/ service scalability, reliability, analytics; Data mining, Data warehouse; Distributed computing – Hadoop, Map Reduce; Business intelligence; Business continuity planning.

- **Cyber Security:**

Threats, Vulnerabilities and attacks for organizations; Data security, Data privacy, Data protection; Privacy implications in social network; Hackers and Crackers; Ethical Hacking, Denial of Service attacks, WIFI Hotspot, Botnet, Cybercrimes and the Indian IT Act 2000 (amended from time to time), IT security risk management, ISO/IEC 27000, Indian Computer Emergency Response Team (CERT-In) Roles and Functions

- **State and Central Government IT Infrastructure and Various Projects**

Mission Mode Projects (Mission Mode Projects Central MMPs State MMPs Integrated MMPs), Digitize India Platform (DIP), Digital Locker, GI CLOUD (MEGHRAJ), State Data Centre, E-KRANTI etc., State and Central Government current E-Governance Programmes

- **Current Trends and Recent Advancement in the relevant field**
