Written Exam Pattern for Lecturer Computer

Paper	Name of Subject	No. of questions	Marks	Duration
Only One Paper	General Studies	10	10	01:30 hrs.
	General Hindi	10	10	
	Subject Related	60	60	
	Total	80	80	

** There is no negative marking.

Syllabus for Lecturer Computer

1- Computer Hardware and Architecture: Fundamentals, Number systems, combinational and sequential circuits, Organization of Digital computer, Storage Systems, I/O devices, Elements of Microprocessors and microcomputers, Parallel computing and super computers.

2- System Software: "Operating system" Fundamentals and services, O.S. Process concepts, memory managements, file and I/O management, protection and security. Anti-virus, Device drivers, Machine and assembling language, Compilers, Interpreters, Linkers, Loaders, LINUX and shell programming.

3- Programming Concepts: Programming languages, Algorithms, Flowcharts, concepts of C-language including file processing Numerical Methods.

4- Data Structures: Fundamentals, Linear and Non-linear Arrays, Stacks, Queues, linked Lists, Multilinked Lists, Sorting, searching, Matrix inversion, time land space complexity, practical problems.

5- Computer Communication and Networks: Computer networks, protocols, OSI and TCP/IP reference model, X.25 frame-relay, Data transmission, Encoding Schemes, Multiplexing, Layering technologies, Transmission media LAN and WAN technology and Network security.

6- System analysis and Design: Information science concepts, system concepts, Evaluation and scope of software engineering, software requirement analysis, and software design process, software testing and debugging.

7- Database Management system: Fundamentals, Relational model, language & systems (SQL & PL/SQL), Database design, Transaction concepts, Data protection, concurrency control & recovery techniques, Design methods and concepts of CODBMS Distributed database, Data mining & data ware housing.

8-OOPS and Applications: Object oriented programming concepts, object-oriented analysis and design, JAVA and C ++ programming language concepts & design methods, application software, Visual programming techniques.

9- Computer graphics: Fundamentals. 2-D & 3-D representations, Geometrical transformation, Curves and Surfaces, fractals, Solid modelling, Animation and applications.

10- Design and development of application: Fundamentals of Mobile and embedded systems, basic and advance application design, design constraints for mobile applications, Introduction to android and iOS app development.

11- Web Technologies and Multimedia systems: Fundamentals, web browsers, protocols, Searching and download technologies, web servers and securities, web design and mark-up languages, Designing of dynamic functionality in web pages, Scripting languages, middleware architecture and cyber laws. Multimedia technologyconcepts, Authoring tools, Internet applications.

(General Studies)

- 1. History of India and Indian National Movement
- 2. Basic Elementary Mathematics
- 3. Economy
- 4. Verbal Reasoning & Non-Verbal Reasoning
- 5. Current affairs events of national and international importance
- 6. India and world Geography
- 7. General Knowledge about Uttar Pradesh
- 8. Indian politics and Governance
- 9. General Science

(General Hindi)

- 1. सम्बंधित अनेकार्थी शब्द
- 2. वर्तनी
- ३. वचन
- 4. वाक्य संशोधन
- ५. कारक
- ६. संधियां
- ७. लिंग
- ८. अलंकार
- 9. वाक्यांशों के लिए शब्द निर्माण
- 10. तत्सम एवं तदभव
- 11. लोकोत्तियाँ एवं मुहावरे
- 12. रस
- 13. पर्यायवाची समास विलोम

Written Exam Pattern for Computer Programmer

Paper	Name of Subject	No. of questions	Marks	Duration
Only One Paper	English Comprehension (Unseen Passage)	10	20	01:30 hrs.
	Subject Related	60	60	
	Total	70	80	

** There is no negative marking.

Syllabus for Computer Programmer

- Computer-based statistical & Numerical methods, Discrete Structures
- Programming and Problem Solving through C and C++
- Data Structures through C and C++
- Object Oriented Programming through Java
- Computer System Architecture
- Database Management System with working knowledge on FoxPro/ Oracle/Ingress/Sybase/DB/JET etc.
- Structured System Analysis and Design
- Operating Systems, UNIX and Shell Programming
- Automata Theory and Compiler Design
- Data Communication and Network Technologies with case studies on NOVELL/Windows NT
- Wireless and Mobile Communication, Network Management, Cryptography and
 Information Security
- Computer Graphics and Multimedia, Digital Image Processing, Visual Programming
- Software Engineering & CASE Tools, Software Testing & Quality Management, Software Project Management
- Artificial Intelligence, Neural Networks, Data Warehouse & Data Mining
- INTERNET Technology, Web Design and Web Services
- Parallel Computing
- Machine Learning and Python
- E-Commerce