

ASIAN EDUCATIONAL INSTITUTE  
(AN AUTONOMOUS COLLEGE)  
PATIALA

SEMESTER - I

Session 2024-25

BCOMP101 : COMPUTER SCIENCE - (FUNDAMENTAL OF COMPUTERS)

Total Marks: 70  
External Examination: 50  
Internal Assessment: 20

Maximum Time: 3 Hrs.  
Minimum Pass Marks: 35%  
Lectures to be delivered: 45-55 Hrs.

**A) Instructions for paper-setter**

The question paper will consist of three sections A, B & C. Sections A & B will have four questions from the respective sections of the syllabus and will carry 30% marks each. Section C will have 6-12 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

**B) Instructions for candidates**

1. Candidates are required to attempt two questions each from sections A & B of the question paper and the entire section C.
2. Use of non-programmable scientific calculator is allowed.

**COURSE OBJECTIVES:**

- Aware students about basic of computer and its evolution.
- Provide knowledge of different units of computer like processing unit, IO unit, and storage unit.
- Applications of Computers.
- Advanced trends in IT.

**LEARNING OUTCOMES:**

On the successful completion of the course, students will be able to:

- Have a clear understanding of fundamentals of computers so as to apply it in real life problems.
- Develop an in-depth knowledge of various motivational theories.
- Develop skills to get employment in I.T. field

**SECTION A**

**Computer Fundamentals:** Block diagram of a computer, characteristics of computers and generations of computers. Categories of Computers - Supercomputer, mainframe computer,



network server, Workstation, Desktop computers, notebook computer, Tablet PC, handheld PC, smart phone.

**Input Devices:** Keyboard, Mouse, Joy tick, Track Ball, Touch Screen, Light Pen, Digitizer, Scanners, Speech Recognition Devices, Optical Recognition devices – OMR, OBR, OCR

**Output Devices:** Monitors, Impact Printers - Dot matrix, Character and Line printer, Non Impact Printers – DeskJet and Laser printers, Plotter.

**Memories:** Memory Hierarchy, Primary Memory – RAM, ROM, Cache memory. Secondary Storage Devices - Hard Disk, Compact Disk, DVD, Flash memory.

**Software:** Types of Software- System Software, Application Software, Firmware. Type of System Software: Operating Systems, Language Translators, Utility Programs, Communications Software. **Commonly Used Application Software:** Word Processor, Spreadsheet, Database, Education, Entertainment Software.

**Computer Languages:** Machine language, assembly language, high level language, 4GL.

## SECTION B

**Computer Codes:** weighted and non-weighted code, BCD, EBCDIC, ASCII, Unicode.

**Computer Network:** Network types, network topologies.

**Internet Related Concepts:** Internet, World Wide Web, Hypertext, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Internet Services Providers, Internet Security, Web Search Engine, Net Surfing, web portal, Wiki, Blog.

**Advanced Trends in IT:** Mobile Internet, GPS, 3G, 4G, Wi-Fi, Bluetooth, Cloud Technology, Virtual LAN Technology, Firewall, E-Commerce, M-Commerce, Nanotechnology, Virtual Reality, BPO and KPO, Online shopping, Social Media - YouTube, Facebook, LinkedIn, Twitter, Google+.

**Applications of IT:** IT in Business and Industry, IT in Education & training, IT in Science and Technology, IT and Entertainment, Current Trends in IT Application - AI, Virtual Reports, voice recognition, Robots, Multimedia Technology.

### Text/Reference Books:

1. Peter Nortorn, Introduction to Computers, Seventh Edition
2. V. Rajaraman, Fundamentals of Computers, PHI.
3. Larry E. Long and Nancy Long, Computers: Information Technology in Perspective, PHI.
4. N. Subramanian, Introduction to Computers, Tata McGraw-Hill.
5. D.H. Sanders, Computers Today, McGraw-Hill.



## **PAPER BCOMP101: PRACTICAL BASED ON PAPER BCOMP101**

**External Marks: 30**

**Maximum Time: 3 Hrs**

**Minimum Pass Marks: 35%**

**Practical Units to be conducted: 45-55 Hrs**

The laboratory course will comprise of Activities related to GUI based operating system and exercise to what is learnt under Paper BCOMP101 such as:

### **Operating System**

Activity 1: Installation and Software & Drivers installation.

Activity 2: Basic components of Window-Desktop, Icons, Taskbar, Status Bar,  
Wallpapers, Screen Saver

Activity 3: Start Menu: Accessories- Notepad, Calculator, Clock, Date and Time, Disk  
Defragmentation, Working with Control Panel.

Activity 4: Taskbar properties - Maximize Minimize, Restore, and Close.

Activity 5: Creating Files, Folders, Shortcuts, Moving folders (right click options)

### **Internet**

Activity 1: Connecting through Wi-fi, Blue tooth and Hot Spot.

Activity 2: Web Surfing, searching contents through Search Engines.

Activity 3: Creating and maintaining Web Blogs and Web portals

### **Social Media**

Activity 1: Creating account, linking accounts, setting profiles and preferences.

Activity 2: Posting messages, replying, forwarding, tagging contents.

Activity 3: Online shopping, comparing prices etc.

Activity 4: Creating and maintaining social profiles at LinkedIn, FaceBook, Twitter etc.

**The breakup of marks for the University Examination will be as under:**

<b>Lab Record</b>	<b>05 Marks</b>
<b>Viva Voce</b>	<b>10 marks</b>
<b>Program Development And Execution</b>	<b>15 Marks</b>

