

PURBANCHAL UNIVERSITY

2019

B. E. (Computer/E&C/Electrical)/First Semester/Final

Time: 03:00 hrs.

Full Marks: 80 / Pass Marks: 32

BEG170CO: Elements and Devices of Computing Technology (New Course)

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks. The marks allotted for each sub-question is specified along its side.

Answer EIGHT questions.

1. Why computer is called an electronic device? Differentiate between analog and digital computers. Write features of mainframes, mini-computers, and micro-computers. $2+3+5$
2. Define CPU with its functions. Explain different types of computer memory in detail. $3+7$
3. Define operating system with its functions. Explain any one operating system in detail. $5+5$
4. What is flow chart and algorithm? Explain generation of programming languages. $4+6$
5. What do you mean by computer peripherals? Describe any four computer peripherals. $2+8$
6. Explain the different types of cables used in computer networking. 10
7. What are different topologies used in computer network? Explain classification of computer network with sketches diagram. $2+8$
8. What are software applications? Explain word processor and spreadsheet with its major features. $2+8$
9. **Write short note on any TWO:** $2 \times 5 = 10$
 - (a) Optical devices
 - (b) Computer crime and cyber law
 - (c) E-commerce



PURBANCHAL UNIVERSITY

2018

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Answer EIGHT questions.

1. Differentiate between IT and computer science. Explain the different classifications of computer. 2+8
2. What is volatile and non-volatile memories? Explain primary memory with an example in detail. 2+8
3. Define operating system. Explain the functions of O.S. 10
4. What do you mean by flowchart and why do we need to it? Explain the various symbols used in flow chart. 6+4
5. Define software and its different types. Write the essential features of word processor. 3+7
6. What are the differences between impact and non-impact printers? Explain detail about non-impact printer. 3+7
7. Explain the working of scanner and digitizer. 5+5
8. What is network? Define computer network and discuss the topologies of it. 2+8
9. Explain the importance of cyber law in today's world. Also explain cyber law of Nepal. 5+5
10. Write short note on any TWO:
(a) Assembler and Interpreter
(b) LINUX
(c) Sound System 2×5=10



PURBANCHAL UNIVERSITY

2017

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Answer EIGHT questions.

1. What are analog computers and digital computers? Classify the modern day computers on the basis of their usage. 5+5

2. Explain the memory hierarchy computer system Discuss 3 input devices and 3 output devices in brief. 4+6

3. What is an operating system? Why it is referred to as a virtual machine? Explain in brief the main functions of the operating system. 2+3+5

4. Discuss algorithm and flow chart with suitable examples. Explain the difference between Magnetic tape and Magnetic Disks. 5+5

5. What do you mean by a computer network? Explain different network topologies you know. Explain client server and peer to peer model in brief. 1+4+5

6. What is e-commerce? What is the importance of cyber law in modern business? What is computer crime? Explain briefly with examples. 2+3+5

7. X What is customized software? Write the essential features of graphics and database software. 4+6

8. Discuss client-server model. Explain the working principle of a digitizer. 5+5

9. Write short note on any FOUR: 4×2.5=10

(a) Plotter (b) 10BaseT

(c) Fourth generation computer (d) Primary memory

(e) Optical Disk P

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PURBANCHAL UNIVERSITY

2016

B. E. (Computer/E&C/Electrical)/First Semester/Final
Time: 03:00 hrs.

Full Marks: 80 / Pass Marks: 32

BEG170CO: Elements and Devices of Computing Tech. (New Course)

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Answer EIGHT questions.

- 1(a) Describe the hardware technologies used in building the computer of various generations. 5
- (b) Draw the block diagram of CPU and describe the function of each block briefly. 5
- 2(a) Explain various types of RAM and ROM. 6
- (b) Explain the difference between an interpreter and complier. 4
- 3(a) Explain the function of operating system. 5
- (b) Explain how multiprogramming ensures effective utilization of main memory and CPU. 5
- 4(a) Explain the steps of keyboard input processing. 5
- (b) What are the characteristics of good programming language? Explain. 5
- 5(a) What is database and database management system. 4
- (b) Explain the features of word processor, spreadsheet and graphics. 6
- 6(a) Describe the working principle of Laser Printer. 6
- (b) What are modems? What purpose do they serve in data communication system? 4
- 7(a) Define e-commerce. Why does cyber law require in modern business practice? 2+4

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PURBANCHAL UNIVERSITY

2016

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2+4

Contd. ...

(2)

(b) Describe the client server model and Peer to Peer model of Networking.

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8. Explain the structure of a program? Does the structure of a program is similar for all programming language? Explain. 10

$4 \times 2.5 = 10$

9. Write short note on any FOUR:

- (a) Network Topologies
- (c) Digitizer
- (e) Optical Disk

- (b) Linux
- (d) Flow Chart



PURBANCHAL UNIVERSITY

2015

B. E. (Computer/E&C/Electrical)/First Semester/Final

Time: 03:00 hrs.

Full Marks: 80 /Pass Marks: 32

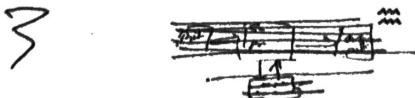
BEG170CO: Elements and Devices of Computing Tech. (New Course)

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks. The marks allotted for each sub-question is specified along its side.

Answer EIGHT questions.

1. What is computer? Define briefly its types. 2+8
- 2(a) Draw the basic architecture of computer and describe each unit briefly. 6
- 2(b) Differentiate between RAM and ROM memory. 4
3. What is operating system? Describe the functions of operating system. 2+8
- 4(a) What is programming language? Describe the term compiler, interpreter and assembler. 2+3
- 4(b) Describe different programming tool used in system development process. 5
- 5(a) What is word processor? Describe briefly its types. 5
- 5(b) Define database and explain its advantage in detail. 5
6. Describe different type of printer used. 10
- 7(a) What is computer crime? Explain the different types of computer crime. 5
- 7(b) What is topology? Explain different topological structure. 5
8. Define e-commerce and describe different types of e-commerce used in Nepal. 10
9. Write short note on any FOUR: 4×2.5=10
 - (a) Digital Camera
 - (b) Business Information System
 - (c) Optical Fiber
 - (d) Linux
 - (e) Client Server Model of Network



PURBANCHAL UNIVERSITY

2014 (New)

B. E. (Computer / E&C / Electrical) / First Semester / Final

Time: 03:00 hrs.

Full Marks: 80 / Pass Marks: 32

BEG170CO: Elements and Devices of Computing Technology

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks. The marks allotted for each sub-question is specified along its side.

Answer EIGHT questions.

1. What is the role of computer in computing technology? Classify computers on the basis of uses and capacity. 4+6
2. Explain computer organizational structure with neat diagram. 10
3. What is operating system? Explain functions of operating system. 10
4. Explain program design. What are the programming tools used in program design? Explain. 10
5. How interpreter is different from compiler? Give some examples of programming language. 6+4
6. What are the types of printer? Explain in brief. 10
7. Explain secondary storage devices. What is a digitizer? 7+3
8. How bus network is different from ring network? Explain client-server model of network. 5+5
9. Write the functions of router. What is unshielded twisted pair cable? Name any two network operating system. 3+4+3 5+5
10. Write notes on any TWO:
(a) Word processor
(b) Spreadsheet
(c) Business Information System



PURBANCHAL UNIVERSITY
2012

B. E. (Computer/Electronics & Communication)/First Semester/Final
Time: 03:00 hrs. Full Marks: 80 /Pass Marks: 32,
BEG170CO: Elements and Devices of Computing Technology

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks. The marks allotted for each sub-question is specified along its side.

Answer ALL questions.

1. Explain the block diagram of CPU. Define various registers and program execution steps. 4+3+3
2. Discuss about any 6 functions of an operating system. Explain the concept of tightly coupled system and loosely coupled system. 6+2+2
3. "Algorithms are independent of programming languages being used." Explain the above statement. Explain the different program design techniques. 4+6
4. Discuss some commonly supported features of Presentation software, Database and Graphics. 10
5. Explain the mechanism used by CRT monitors for producing images with a labeled diagram. Why are flat panel displays considered better than CRT displays? 8+2
- 6(a) Explain how optical fibers are used for data transmission in computer networks? 5
(b) What do you mean by Routing? Bring out the distinction between simplex, half-duplex and full-duplex data transmission modes. 2+3
- 7(a) Describe client server model and peer to peer model of networking. 4
(b) What is network operating system? Discuss windows NT. 2+4

Contd. ...

(2)

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Q. Write short notes on any TWO: 5+5

- (a) 10 Base TX
- (b) Digitizers
- (c) Magneto-optical devices
- (d) Network topologies

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PURBANCHAL UNIVERSITY

2011

**B. E. (Computer/Electronics & Communication)/First Semester/Final
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BEG170CO: Elements and Devices of Computing Technology**

Candidates are required to give their answers in their own words as far as practicable.

All questions carry equal marks. The marks allotted for each sub-question is specified along its side.

Answer EIGHT questions.

- 1(a) Explain different types of computers on the basis of their capacity. 5
- (b) Construct the building blocks of a PC and explain its components. 5
- 2(a) What is operating system? Explain its types. What are the reasons behind the popularity of Windows? 1+4+2
- (b) What do you mean by application softwares? List the mostly used application softwares. 3
- 3(a) What is database and database management system? 3
- (b) Explain the use of computers in modern business with proper examples. 7
- 4(a) What are input and output devices? Explain the steps of keyboard input processing. 5
- (b) What is optical storage device? Explain the process of data reading in CD-ROM with neat figure. 5
- 5(a) What is programming language? Explain Assembler, Interpreter and Compiler with example. 5
- (b) Draw a flow-chart for a program which prints the even numbers from 1 to 100. 5
- 6(a) What are computer peripherals? Explain any five peripheral devices. 5

Contd. ...

(2)

- (b) Explain similarities between magnetic and optical storage device. 5
- 7(a) What is computer network? Explain network topologies with neat diagrams. 5
- (b) Explain mostly used network cables with their speed. 5
- 8(a) What are the constraints of wireless network over wired network? Explain. 5
- (b) What is Network Operating System? Explain Client-Server model of networking with proper figure. 5
- 9(a) What is e-commerce? What are its constraints in context to Nepal? 5
- (b) What is the importance of cyber laws? Explain the different prevailing cyber crimes. 5
10. Write notes on any FOUR: 4×2.5=10
- (a) Routers
 - (b) Spreadsheet
 - (c) EPROM
 - (d) Digital Computers
 - (e) Information Security



Keyboard Memory RAM System CPU
Monitor Processor Software