

B.A/B.Sc COMPUTER STUDIES 2005

PAPER: A

TIME ALLOWED: 3 hours

MAX. MARKS: 70

Notes:

1. Question 1 in Part I and Question 7 in Part II are compulsory
2. Attempt all the remaining questions in Part I and Part II, selecting either part (a) or part (b) of each question but not both.

Part-I (Introduction to Information Technology) Max Marks: 35

Q.1 (Do all parts in this question) (10 marks)

Note: Answers for all the parts in question 1 must be written on the answer sheet. Write on the answer sheet the part number and your selected answer letter (e.g. a or b or c or d) against it. No need to write the question on the answer sheet.

Multiple choice questions: Choose the correct option. Cutting and overwriting in this question will be considered wrong.

1. The most powerful computers in terms of processing are called _____.
(a) Mainframe Computers (b) Super Computers
(c) Minicomputers (d) Workstations
2. When the computer power is turned off, _____ memory loses its contents.
(a) Read-only (b) Flash
(c) Volatile (d) Nonvolatile
3. A _____ is a pointing device that works like an upside-down mouse.
(a) Trackball (b) Track pad
(c) Track point (d) Track mouse
4. A _____ monitor display varying intensities of gray against a white background.
(a) Monochrome (b) Grayscale
(c) Color (d) All of the above
5. The _____ storage device is typically used for backup purposes.
(a) Floppy (b) Hard Disk
(c) Tape (d) DVD-ROM
6. An example of stand-alone operating system is _____.
(a) Mac OS (b) Solaris
(c) Windows CE (d) Palm OS
7. The type of network that connects computers and devices in a limited geographical area is called a _____.
(a) LAN (b) MAN
(c) WAN (d) PAN
8. Physical arrangement of devices in a network is called network _____.

- (a) Technology
- (c) Software

- (b) Topology
- (d) Media

9. The _____ digital service offers high-speed transmission rates, can utilize existing POTS lines and provides simultaneous access to telephone and Internet.

- (a) ISDN PRI
- (b) DSL
- (c) T1
- (d) T3

10. Using a _____ connection you can surf the Internet and watch television at the same time.

- (a) ISDN
- (b) DSL
- (c) Cable Modem
- (d) None of the above

Q.2 Do either part (a) or part (b) of this question

(5 marks)

2(a)

- 2(a1) State three characteristics of mainframe computers. (3 marks)**
- 2(a2) What is a terminal? (2 marks)**

OR

2(b)

- 2(b1) What type of operations are performed by Arithmetic Logic Unit (ALU)? (3 marks)**
- 2(b2) Define the concept of pipelining. (2 marks)**

Q.3 Do either part (a) or part (b) of this question

(5 marks)

3(a)

- 3(a1) Differentiate between a mechanical mouse and an optical mouse. (3 marks)**
- 3(a2) What does Optical Character Recognition (OCR) software do? (2 marks)**

OR

3(b)

- 3(b1) State the characteristics of an LCD monitor. (3 marks)**
- 3(b2) Define resolution of a computer monitor. (2 marks)**

Q.4 Do either part (a) or part (b) of this question

(5 marks)

4(a)

- 4(a1) What is the function of data bus? (3 marks)**
- 4(a2) How the cache memory speeds up the CPU performance? (2 marks)**

OR

- 4(b)
- 4(b1) Compare hard disk with floppy disk in terms of speed, capacity and cost. (3 marks)
 - 4(b2) List any two primary types of optical storage. (2 marks)

Q.5 Do either part (a) or part (b) of this question (5 marks)

- 5(a)
- 5(a1) Define spooling process. (3 marks)
 - 5(a2) What is meant by multiprocessing operating system? (2 marks)

OR

- 5(b)
- 5(b1) Describe ring topology with the help of a diagram. (3 marks)
 - 5(b2) Name any two physical transmission media. (2 marks)

Q.6 Do either part (a) or part (b) of this question (5 marks)

- 6(a)
- 6(a1) What is ARPANET? (3 marks)
 - 6(a2) Define backbone networks. (2 marks)

OR

- 6(b)
- 6(b1) State the characteristics of World Wide Web (WWW). (3 marks)
 - 6(b2) What is a web browser? (2 marks)

Part-II (Computer Programming)

Max Marks: 35

Q.7 (Do all parts in this question) (10 marks)

Note: Answers for all the parts in question 7 must be written on the answer sheet. Write on the answer sheet the part number and your selected answer letter (e.g. a or b or c or d) against it. No need to write the question on the answer sheet.

Multiple choice questions: Choose the correct option. Cutting and overwriting in this question will be considered wrong.

1. String and String variables can be concatenated by:
 - (a) Ampersand (&)
 - (b) Plus Sign (+)
 - (c) Both a & b
 - (d) None of Above
2. By default the property “Multiline” of text box is:
 - (a) True
 - (b) False
 - (c) Multiline
 - (d) None of Above
3. To display a message _____ function is used:
 - (a) InputBox
 - (b) Message
 - (c) MsgBox
 - (d) None of Above

4. A _____ is intended to return one single data item.

(a) Function-Procedure	(b) Sub-Procedure
(c) Both a & b	(d) None of Above

5. Operator “Mod” is used to determine:

(a) Integer Remainder	(b) Integer Division
(c) Absolute Integer	(d) None of Above

6. Temporary Break-Point can be defined by:

(a) Clicking on the line	(b) Pressing Ctrl+F8
(c) Both a & b	(d) None of Above

7. To refer first element of Array “A” in VB we use:

(a) A(0)	(b) A[0]
(c) A(1)	(d) A[1]

8. The arithmetic operators other than the Standard Operators in VB are:

(a) Pow, Div	(b) Mod,\
(c) Both a & b	(d) None of Above

9. If an existing file is open in Append mode then:

(a) Its contents can be appended	(b) New file can be created
(c) File name is appended	(d) None of Above

10. To establish a connection with Database, _____ property of Connection Object is used:

(a) Establish	(b) Open
(c) Create	(d) None of Above

Q.8 Do either part (a) or part (b) of this question (5 marks)

8(a)

8(a1) Name the problem solving techniques used in computers. (3 marks)

8(a2) State the characteristics of any one technique. (2 marks)

OR

8(b)

8(b1) What is Event-Driven Programming? (3 marks)

8(b2) Give two features of Event-Driven Programming. (2 marks)

Q.9 Do either part (a) or part (b) of this question (5 marks)

9(a)

9(a1) Define Variable. Also give an example. (3 marks)

9(a2) State any two rules that apply to the naming of the variables? (2 marks)

OR

9(b)

9(b1) What are Function-Procedures? (3 marks)

9(b2) Give an example for defining the Function-Procedures. (2 marks)

Q.10 Do either part (a) or part (b) of this question (5 marks)

10(a)

10(a1) What are the relational operators? Give example. (3 marks)

10(a2) How relational operators can be used in logical expressions. Give Example. (2 marks)

OR

10(b)

10(b1) Give the order in which the menu components must be entered? (3 marks)

10(b2) How a menu can be created in VB? (2 marks)

Q.11 Do either part (a) or part (b) of this question (5 marks)

11(a)

11(a1) Differentiate between single and multidimensional arrays. (3 marks)

11(a2) Give any two characteristics of Arrays. (2 marks)

OR

11(b)

11(b1) What are syntax Errors. (3 marks)

11(b2) How break-points can be set while debugging a VB program. (2 marks)

Q.12 Do either part (a) or part (b) of this question (5 marks)

12(a)

12(a1) Define Data files. (3 marks)

12(a2) Give two characteristics of Data Files. (2 marks)

OR

12(b)

12(b1) Why we use Database in VB programs? (3 marks)

12(b2) How Data Environment Designer can be used? (2 marks)