

**BACHELOR IN COMPUTER  
APPLICATIONS (BCA Revised)**

**Term-End Examination**

**June, 2012**

**BCS-011 : COMPUTER BASICS AND P C  
SOFTWARE**

08267

*Time : 3 hours*

*Maximum Marks : 100*

*Weightage : 75%*

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*Note : Question number 1 is compulsory and carries 40 marks.  
Attempt any three questions from the rest.*

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1. (a) Convert the following hexadecimal number to equivalent binary and decimal : 4
  - (i)  $(51)_{16}$
  - (ii)  $(DA)_{16}$
- (b) How is the access time on a disk is defined ? 5

Explain each of the component of access time with the help of an example.
- (c) Explain the basic structure of a computer system ? With the help of a diagram . A personal computer has a component called motherboard. How is motherboard related to the basic computer structure ? 6

- (d) List five facilities that are provided by an operating system to a user or to a program. 5
- (e) Draw a flow chart to add integer between 2 to  $(n+1)$  where  $n > 2$ . 6
- (f) Explain the terms : Subroutine and function with the help of an example. 3
- (g) Consider two IP addresses 4
160. 10. 11. 25
160. 10. 12. 35
- Do they belong to the same network , if
- (i) The subnet mask is 255.255.0.0
- (ii) The subnet mask is 255.255.255.0
- Justify your answer.
- (h) What is a Wide Area Network (WAN) ? 7
- What are the characteristics of WAN? How are they different from LANs ? Is Internet a WAN ? Justify your answer.
2. (a) What is the need of memory hierarchy in a computer system ? Explain with the help of various trade offs like cost, speed, size etc. 6
- (b) What is perverse software ? List various types of perverse software. Give four ways to counter perverse software. 8
- (c) What are cookies in the context of Browser software ? Are cookies bad ? Explain. List four precautions for safe browsing. 6

3. (a) Compare and contrast the characteristics of the following : 6
- (i) Dot matrix printer versus Laser printer
  - (ii) Cathode ray tube monitors versus liquid crystal display monitors.
- (b) "Latest word processor have text manipulation functions that extend beyond a basic ability to enter and change text " . Explain any four of these advanced text manipulation functions. 8
- (c) Explain the characteristics of the following data transmission channels : 6
- (i) Optic fiber cables
  - (ii) Radio waves
  - (iii) Infrared
4. (a) List six activities that should be part of an e-learning system. Explain the phases of content development in e-learning. 6
- (b) Compare and contrast the following : 8
- (i) SRAM versus DRAM
  - (ii) SIMM versus DIMM
  - (iii) ROM versus PROM
  - (iv) CD-ROM versus Pen - drive.
- (c) What is Open Source Software ? What are the main features of open source development model ? 6

5. Explain *any five* of the following with the help of an example/diagram, if needed. 20
- (i) The uses of WIKI in collaboration.
  - (ii) The activities/actions performed by a search engine.
  - (iii) TCP/IP model.
  - (iv) Activities in a project management software.
  - (v) Batch systems and time sharing operating systems.
  - (vi) Different types of parts in a computer.
  - (vii) Concept of Instruction ; and motivation for development of UNICODE.
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