

**BACHELOR OF COMPUTER
APPLICATIONS (Revised)**

Term-End Examination

December, 2012

**BCS-011 : COMPUTER BASICS AND PC
SOFTWARE**

Time : 3 hours

Maximum Marks : 100

Weightage : 75%

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

1. (a) Convert the following hexadecimal numbers to binary and decimal numbers. 5
(i) $(AB)_{Hex}$
(ii) $(22F)_{Hex}$
- (b) How do you calculate access time on a magnetic disk ? Explain with the help of a suitable example. 5
- (c) What are the basic components of a computer as defined in Von Neumann architecture ? What is the use of each of this component ? 5
- (d) Explain the role of a translator program. 5
How is a compiler different than an assembler ?

- (e) What is an algorithm ? What is the relation between a flow chart and an algorithm ? Draw a flowchart to find the sum and average of marks of a student given in 5 different subjects. Marks are given out of 100. 8
- (f) What is a modem ? How can it be used for data transmission ? How a modem is different from hub ? 4
- (g) What is a DNS ? How is it used for identifying web addresses ? Explain with the help of an example. 5
- (h) What is a web browser ? Why is it needed ? Name at least three popular web browsers. 3
2. (a) Name and explain the purpose of any four utility programs used on a personal computer. 6
- (b) What are the characteristics and advantages of a Local Area Network ? Explain any one LAN topology with the help of a diagram. 8
- (c) Define the term "Open Source Software". Explain any two important features of the model used for open source software development. 6

3. (a) Explain the terms 6
- (i) Simple batch systems and
 - (ii) time sharing systems in the context of operating systems. How are batch systems different than the multiprogramming system.
- (b) Explain the different types of main memories that are part of a computer system. Why do you need secondary memories in a computer even if sufficient primary memory may be available ? 6
- (c) Name the features of any eight devices used for input/output. 8
4. (a) What are different types of optical disks ? Explain their features and give their advantages. 8
- (b) Explain at least **four** important features of the following application software. 12
- (i) Word Processing
 - (ii) Spreadsheet
 - (iii) Database
5. Explain *any five* of the following terms/phrases with the help of an example/diagram, if needed : 20
- (a) Collaboration in the context of internet.
 - (b) Blog in the context of internet.

- (c) TCP/IP
 - (d) Router and Switches
 - (e) User interfaces of operating systems
 - (f) Trojan horse and spyware
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