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Code : 091405

B.Pharm 4th Semester Theory Examination, 2017

Basic Electronics and Computer Applications

Time : 3 hours

Full Marks : 70

Instructions :

- (i) *There are Nine Questions in this Paper.*
- (ii) *Attempt Five questions in all.*
- (iii) *Question No. 1 is Compulsory.*
- (iv) *The marks are indicated in the right-hand margin.*

1. Answer any seven of the following : 2×7=14

- (a) List different application areas of computer in pharmaceutical and clinical studies.
- (b) What is the difference between RAM and ROM?
- (c) What is the difference between compiler and interpreter?
- (d) Define MS-DOS operating system.
- (e) What is system software?
- (f) What do you mean by aspect ratio?
- (g) What is a Digital Computer?
- (h) What is LAN?
- (i) What do you mean by hierarchy of operators in C programming language?
- (j) Define Binary tree.

P.T.O.

2. (a) What is a photo diode? State and explain some of its applications? 6
- (b) Explain different generations of Computer development with examples. 8
3. (a) Explain different classification of Computers with their characteristics and differences. 7
- (b) Define Operating System. What are the different roles of an Operating System within a Computer? 7
4. (a) What is Computer Graphics ? What are the application areas of computer Graphics in Clinical and pharmaceutical studies? 6
- (b) Define Computer Network. Explain the seven layer architecture of Communications. 8
5. (a) Explains the functions of following units in a computer system: $2 \times 3 = 6$
- (i) ALU
 - (ii) Control Unit
 - (iii) Processing Unit
- (b) Define Flow Chart. How a flow chart does help a computer programmer? Draw a flow chart to find area of a rectangle. 8

6. (a) Define variable used in BASIC programming. What are the rules for naming the numeric and string variables in BASIC? 7
- (b) Explain through simple examples, three different ways of assigning values to the variables in BASIC. 7
7. (a) Define Queue. List out the basic operations that can be performed on a queue. How it is different from stack? 8
- (b) Define data structure. What are the differences between an Array and a Linked list? 6
8. (a) What is the role of TAB function in BASIC programming? 4
- (b) Explain the difference between PRINT and LPRINT commands used in BASIC programming language. 5
- (c) What are the differences between function and subroutine? 5
9. (a) Explain the working of a half wave rectifier with a neat circuit diagram and waveform. 5
- (b) What is a transistor? Explain its configuration. 5
- (c) Explain Integrated Circuit and its applications in brief. 4
