

Total No. of Questions—7]

[Total No. of Printed Pages—6

Seat No.	
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[5119]-101

F.Y. B.C.A. (Science) (First Semester) EXAMINATION, 2017

BCA-101 : FUNDAMENTALS OF COMPUTER

Time : Three Hours

Maximum Marks : 70

- N.B. :—**
- (i) Question No. 1 (A and B) are compulsory questions.
 - (ii) Attempt any *two* questions from Group I.
 - (iii) Attempt any *two* questions from Group II.
 - (iv) Figures to the right indicate full marks.

1. (A) Choose the *correct* option : [7]
- (1) RAM is considered because you can access any memory cell directly if you know row and column that intersect at that cell :
 - (a) Real Memory
 - (b) Random Memory
 - (c) Rambus Memory
 - (d) None of the above
 - (2) A translator which scans the entire program and translates it as whole on to machine code is called as
 - (a) Interpreter
 - (b) Compiler
 - (c) Assembler
 - (d) None of the above

P.T.O.

- (3) The principal used to store data on magnetize devices is
- (a) Polarization
 - (b) Hybridization
 - (c) Digitization
 - (d) None of the above
- (4) A Real Time Operating System (RTOS) is a operating system designed for real time applications.
- (a) Embedded system
 - (b) Multitasking
 - (c) Single user
 - (d) None of the above
- (5) is a document that store data grid of rows and columns.
- (a) Notepad
 - (b) Spreadsheet
 - (c) Word Processor
 - (d) None of the above
- (6) is a program a PC microprocessor uses to get the computer system started after it turned on.
- (a) BIOS
 - (b) MOS
 - (c) LAN
 - (d) None of the above

(7) ADJUST method is used in trouble shooting using idea of isolating a problem using

(a) Logical fault isolation

(b) Testing

(c) Replacement

(d) None of the above

(B) Define the following terms : [7]

(1) Computer

(2) Software

(3) Driver

(4) Virus

(5) Word Processor

(6) EPROM

(7) Operating System.

Group I

2. Answer the following :

(a) Describe block diagram of computer with suitable diagram. [5]

(b) What is a programming language ? Explain the different types of programming languages. [5]

(c) Explain operating system with its functions. [4]

3. Solve the following :

(a) Convert the following hexadecimal number into its decimal equivalent : [4]

(i) AB97D

(ii) SFBC6

(iii) 39FD8

(iv) 897BA.

(b) Solve the following Binary Arithmetics : [4]

(i) $(110111)_2$

$\times (1101)_2$

(ii) $(11011011)_2$

$- (10001001)_2$

(iii) $(10110111)_2$

$+ (10110111)_2$

(iv) $(10110101)_2$

$\times (101)_2$

(c) Solve the following : [3]

Convert the following decimal number to octal number :

(i) $(1792)_{10}$

(ii) $(359)_{10}$

(iii) $(5100)_{10}$.

(d) Convert the following decimal number to binary : [3]

(i) $(196)_{10}$

(ii) $(2012)_{10}$

(iii) $(5096)_{10}$.

4. Answer the following :

(a) Write short notes on : [4]

(i) Desktop

(ii) Troubleshooting.

(b) State and explain different types of Hardware devices. [4]

(c) Differentiate between Imperative Knowledge and Definitional Knowledge. [3]

(d) Explain impact printers. [3]

Group II

5. Answer the following :

(a) Explain Networking related problems. [5]

(b) What is presentation ? What are the elements of good presentation ? [5]

(c) What are secondary storage devices ? Explain any *two* secondary storage devices. [4]

6. Answer the following :

(a) Convert the following decimal number into binary number : [4]

(i) $(792865)_{10} = (?)_2$

(ii) $(9234798)_{10} = (?)_2$.

(b) Convert the following hexadecimal number into octal number : [4]

(i) $(A987BC)_{16} = (?)_8$

(ii) $(658FBE)_{16} = (?)_8$.

(c) Solve the following : [3]

(i) $(1011)_2$

$\times (101)_2$

(ii) $(10100)_2$

$- (110)_2$

(iii) $(101101)_2$

$+ (101)_2$

(d) Explain the limitations of DOS. [3]

7. Answer the following :

(a) Explain characteristics of computer. [4]

(b) State and explain any 5 internal DOS commands. [4]

(c) What is Windows operating system ? Explain the utilities of Windows. [3]

(d) Explain any *one* input device with diagram if necessary. [3]