



JAG-1601

Seat No. _____

B. C. A. (Sem. I) Examination

November / December – 2012

**BCA-101 : Fundamentals of
Programming Language 'C'**

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Fill in the blanks. 3
- (i) Every program statement in a C program must end with a _____.
 - (ii) The _____ header file contains mathematical functions.
 - (iii) A global variable is also known as _____ variable.
- (b) Answer the following questions : (any three) 9
- (i) What is a flow-chart ? Discuss about various symbols to draw a flow-chart.
 - (ii) Discuss about basic structure of C programs.
 - (iii) Describe basic data types available in C language.
 - (iv) What is a variable ? Discuss about rules for naming variables.
- 2 (a) Determine the value of each of the following 3
- logical expression if $a=5$, $b=10$ and $c=-6$
- (i) $a > b \ \&\& \ a < c$
 - (ii) $a == c \ || \ b > a$
 - (iii) $b > 15 \ \&\& \ C < 0 \ || \ a > 0$

(b) Answer the following questions : (any **three**) **9**

- (i) Explain Arithmetic operators in C.
- (ii) Explain Increment / Decrement operators in C.
- (iii) Explain getchar () and putchar () functions.
- (iv) Write scanf statements to read the following data lists.
 - (a) 78 B 45
 - (b) 123 1.23 45A
 - (c) 10 TRUE 20

3 (a) Fill in the blanks : **3**

- (i) The _____ operator is true only when both the operands are true.
- (ii) The expression $x ? y$ can be replaced by the expression _____.
- (iii) The _____ statement is used to skip a part of the statements in a loop.

(b) Answer the following questions : (any **three**) **9**

- (i) Explain the IF-Else statement.
- (ii) Explain the Switch statement.
- (iii) Distinguish between Entry controlled loop and Exit-controlled loop with example.
- (iv) Explain break and continue statements.

4 (a) Fill in the blanks : **4**

- (i) _____ is the process of arranging the elements of an array in order.

- (ii) An array can be initialized either at compile time or at _____.
 - (iii) The variable used as a subscript in an array is popularly known as _____ variable.
 - (iv) An array that uses two subscript is referred to as _____ array.
- (b) Answer the following questions : (any **two**) **8**
- (i) Write short note on one dimensional array.
 - (ii) Explain the following functions.
 - (a) strcat ()
 - (b) strcmp ()
 - (iii) Write short note on table of strings.
- 5** (a) Write complete C programs : (any **two**) **10**
- (i) Write a program to calculate simple interest using formula $I = \frac{P * R * N}{100}$.
 - (ii) Write a program to read the price of an item in decimal form (like 15.95) and print the output in paise (like 1595 paise).
 - (iii) Write a program to read three values and print the following results.
 - (a) Sum of values
 - (b) Average of values.
- (b) Write complete C programs : (any **two**) **12**
- (i) Write a program to display largest of three given numbers.
 - (ii) Write a program to reverse the digits of the given number.

- (iii) Write a program to print following output using for loop.

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
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JAG-1602

Seat No. _____

B. C. A. (Sem. I) Examination

November / December – 2012

BCA-102 : Database Management System

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Define following terms : 6
- (i) Consistency
 - (ii) Redundancy
 - (iii) Integrity
- (b) Attempt any two : 12
- (i) Explain characteristics of DBMS ?
 - (ii) Explain role of DBA ?
 - (iii) What is DBMS ? Explain its component and list advantage and disadvantage of it ?
- 2 (a) Define following terms : 5
- (1) Mapping
 - (2) Domain
 - (3) Schema
 - (4) Primary key
 - (5) Join operator
- (b) Attempt any two : 12
- (1) Discuss the three levels of the architecture of DBMS.
 - (2) What is Data Model ? Explain any one model with advantages and disadvantages.
 - (3) Explain special relational operator in detail.

- 3** (a) Answer the following : **6**
- (1) What is Denormalization ?
 - (2) Explain MVD ?
 - (3) Explain Entity with its type ?
- (b) Attempt any two : **12**
- (1) What is E-R model ? Explain with its components.
 - (2) Discuss all symbols of E-R diagram.
 - (3) Explain 1 NF and 2 NF in detail.
- 4** (a) Answer the following : **5**
- (1) What is auto number ?
 - (2) List out types of Query ?
 - (3) What is Macro ?
 - (4) What is MS Access ?
 - (5) What is the extensions of MS Access database ?
- (b) Attempt any two : **12**
- (1) Explain database of MS Access.
 - (2) Write down all steps for creating database in MS Access.
 - (3) What is report ? Write down steps to create report in MS Access.
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JAG-1603

Seat No. _____

B. C. A. (Sem. I) (C.B.C.S.) Examination

November / December – 2012

BCA-103 : Computer Organization

[New Course]

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Attempt following : 6
- (i) What is DOS ?
 - (ii) Define : Control unit.
 - (iii) What is system software ?
 - (iv) Define : Hardware.
 - (v) What is operating system ?
 - (vi) Define : Fifth generation computer system.
- (b) Attempt the following : (any **two**) 12
- (i) Explain major parts of computer.
 - (ii) Discuss classification of computer in detail.
 - (iii) Explain logical level and pulse wave forms ?
- 2 (a) Attempt following : 5
- (i) What is cache memory ?
 - (ii) Differentiate between RAM and ROM.
 - (iii) Give the full forms of : CRT, LCD.
 - (iv) Define : Flash memory.
 - (v) Differentiate between Switch and Hub.

- (b) Attempt following : (any two) 12
- (i) List out all input devices, and describe detail on Touch Screen.
 - (ii) What is printer ? Discuss all types of printer ?
 - (iii) What is storage device ? Discuss Hard disk with it's diagram.
- 3 (a) Do as directed : 6
- (i) Convert $(4507)_8$ to Binary.
 - (ii) Convert $(DCA.A)_{16}$ to octal.
 - (iii) 15-20 (cuse 1's complement method for subtraction.)
- (b) Attempt following : (any four) 12
- (i) Explain the number system.
 - (ii) Convert $(100.3)_{10}$ to Binary.
 - (iii) Convert $(127.8)_8$ to Decimal.
 - (iv) Add $101101.0011 + 100101.001$.
 - (v) Convert $(11011.10110)_2$ to Hexadecimal.
- 4 (a) Attempt following : 5
- (i) Define : 8421 BCD code.
 - (ii) Define : Complement gate.
 - (iii) Define : NAND gate.
 - (iv) What is combination circuit ?
 - (v) What is Decoder ?
- (b) Attempt following : (any two) 12
- (i) What is logic gate ? Discuss AND and OR gate in detail.
 - (ii) Explain 8 to 3 line Encoder in detail.
 - (iii) Write a short note on : Full adder.



JAG-1603-R Seat No. _____

B. C. A. (Sem. I) (C.B.C.S.) Examination

November / December – 2012

BCA-103 : Computer Organization

[New Course]

Time : 3 Hours]

[Total Marks : 70

- 1 (a) Attempt following : 6
- (i) What is DOS ?
 - (ii) Define : Control unit.
 - (iii) What is system software ?
 - (iv) Define : Hardware.
 - (v) What is operating system ?
 - (vi) Define : Fifth generation computer system.
- (b) Attempt the following : (any **two**) 12
- (i) Explain major parts of computer.
 - (ii) Discuss classification of computer in detail.
 - (iii) Explain logical level and pulse wave forms ?
- 2 (a) Attempt following : 5
- (i) What is cache memory ?
 - (ii) Differentiate between RAM and ROM.
 - (iii) Give the full forms of : CRT, LCD.
 - (iv) Define : Flash memory.
 - (v) Differentiate between Switch and Hub.

- (b) Attempt following : (any two) 12
- (i) List out all input devices, and describe detail on Touch Screen.
 - (ii) What is printer ? Discuss all types of printer ?
 - (iii) What is storage device ? Discuss Hard disk with it's diagram.
- 3 (a) Do as directed : 6
- (i) Convert $(4507)_8$ to Binary.
 - (ii) Convert $(DCA.A)_{16}$ to octal.
 - (iii) 15-20 (cuse 1's complement method for subtraction.)
- (b) Attempt following : (any four) 12
- (i) Explain the number system.
 - (ii) Convert $(100.3)_{10}$ to Binary.
 - (iii) Convert $(127.8)_8$ to Decimal.
 - (iv) Add $101101.0011 + 100101.001$.
 - (v) Convert $(11011.10110)_2$ to Hexadecimal.
- 4 (a) Attempt following : 5
- (i) Define : 8421 BCD code.
 - (ii) Define : Complement gate.
 - (iii) Define : NAND gate.
 - (iv) What is combination circuit ?
 - (v) What is Decoder ?
- (b) Attempt following : (any two) 12
- (i) What is logic gate ? Discuss AND and OR gate in detail.
 - (ii) Explain 8 to 3 line Encoder in detail.
 - (iii) Write a short note on : Full adder.



JAG-1604

Seat No. _____

B. C. A. (Sem. I) Examination

November / December – 2012

BCA-104 : Communication Skills - I

Time : 3 Hours]

[Total Marks : 70

- 1 (a) What are the barriers to communication ? $6 \times 3 = 18$
How can one overcome them ?

OR

- (a) Write about verbal and non-verbal communication.
(b) What are the features of good and effective communication ? Discuss.

OR

- (b) Discuss about the process of communication.
(c) Write note on any two of the followings :
(1) Importance of feedback in communication.
(2) What is communication ? Define it and explain.
(3) Interview.
(4) Presentation.

(a) Put proper article

- (1) Copper is _____ useful metal
- (2) I will return after _____ hour
- (3) We should not laugh at _____ handicapped.

(b) Change the voice.

- (1) He broke the glass
- (2) Sachin is throwing the ball
- (3) Close the door

(c) Fill in the blanks

- (1) _____ you show me the way to the station ? (would, should, must)
- (2) You _____ look before you leap. (should, would, could)
- (3) The red light is on. You _____ stop. (should, would, must)
- (4) The sky is full of clouds. If _____ rain tonight. (can, may, should)

(d) Fill in the blanks with proper verb form.

- (1) She is crying because she _____ a five rupee note. (to lose)
- (2) She _____ for the guests since morning. (to wait)
- (3) Tune down the T.V. Father _____ God. (to worship)
- (4) We _____ the film yeasterday. (to see)

- (e) Turn into indirect speech :
- (1) The teacher said to the students, "Read the question paper carefully".
 - (2) He said, "what a lovely sun-set !"
 - (3) Sudha said, "I wrote my lesson yesterday".

3 Answer any three of the followings : **6×3=18**

- (1) Royal Furniture, Baroda wishes to purchase steel furniture from Uttam steels, Mumbai.
- (2) Sahyog Club, Himmatnagar has decided to give wall-clocks to each of its 150 members. Draft a letter from the secretary of the club to QUARTZ PALACE, Morbi asking quotation for 150 Quartz wall clocks.
- (3) As a partner of Manoj Provision Stores, station Road, Surat, draft a letter ordering fifty boxes of chocolates and sweets from S. Mukharji and Co., 8-S.V. Road, Mumbai.
- (4) Vaishali Saree Centre, Tower Road, Idar has received the silk sarees defective in colour and design. Write a letter of complaint to Vaibhav Silk Emporium, Surat on behalf of Vaishali Saree Centre.
- (5) You have received a letter asking quotation for face powder and cosmetic items from Niki Beauty shop, Mahavir Nagar, Himmatnagar. Draft a suitable replay on behalf of Asha Trading and Manu., Near Law Garden, Ahmedabad.

- 4** Do as directed : **17**
- (a) Choose correct word and fill in the blank : **3**
- (1) _____ helping me with money, he gave me medicines. (Beside, Besides)
- (2) During the _____ half of the year the production went up considerably. (later, latter, letter)
- (3) For rural development we need an army of _____ workers. (zealour, jealous)
- (b) Write one word substitute for a group of words : **3**
- (1) An act of killing oneself.
- (2) Something which can be eaten.
- (3) One who lives on vegetable.
- (c) Write antonyms - (1) Fresh (2) Guest. **2**
- (d) Write synonyms - (1) Alter (2) Furious. **2**
- (e) Write an essay on any one of the followings : **7**
- (1) My aim in life
- (2) Books-our never failing friends.
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