FBCA—(1.3)

2018

Time : 3 hours

Full Marks : 80

Answer **all** questions

All questions carry equal marks

Candidates are required to answer in their own words as far as practicable

(COMPUTER FUNDAMENTAL)

1. (*a*) Explain the classification of computer.

   (*b*) Explain about various type of input devices of computer and their functions.

   Or

   (*c*) Discuss about history of computer.

   (*d*) What do you mean by computer and discuss the working computer.

2. (*a*) Find the decimal equivalent of the octal number 127.54.

(*b*) Explain about ASCII, BCD and EBCDIC code format with example.

Or

(*c*) Subtract 56_{10} from 92_{10} using complementary method.

(*d*) Convert $(1694)_{10}$ to binary and octal format.

3. (*a*) Differentiate between hardware and software.

(*b*) Explain different type of computer language.

Or

(*c*) Differentiate between Interpreter and Compiler.

(*d*) Differentiate between multiprogramming and multiprocessing operating system.

4. (*a*) Explain different types of data transmission modes.

(*b*) Differentiate between Synchronous and Asynchronous transmission.

Or

(*c*) Describe different type of switching technique.

(*d*) Explain different type of network topology.

FBCA—(1.4)

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(DATA STRUCTURE)

1. (*a*) Write down an algorithm to reverse an array ?

   (*b*) What do you mean by record ? How record can be represented in memory ?

   Or

   (*c*) What are the different ways of representing a two-dimensional array in memory ?

   (*d*) What do you mean by datastructure ? Describe different types of datastructure.

2. (*a*) Write down an algorithm to insert and delete element from a circular queue.

(*b*) What do you mean by linked list ? Write an algorithm to reverse a linked list.

Or

(*c*) Write down an algorithm to delete the first node in a double linked list.

(*d*) Write down an algorithm to reverse a string using stack ?

3. (*a*) Write down an algorithm to insert a data element in a binary search tree.

(*b*) Write down an algorithm for post order traversal of binary tree.

Or

(*c*) Construct a binary search tree from the following numbers :

90, 36, 58, 96, 32, 92, 12, 93, 24, 97, 38, 60, 98

(*d*) What do you mean by threaded binary tree ? Describes different type of threaded binary tree.

4. (*a*) Write down an algorithm for linear search.

(*b*) Sort the following data in ascending order using heap sort.

25, 35, 18, 9, 46, 70, 48

Or

(*c*) Write down an algorithm for sort.

(*d*) Show all the passes using insertion sort with the following list.

13, 33, 27, 77, 12, 43, 10, 432, 112, 90

FBCA—(1.1)

2018

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The figures in the right-hand margin indicate marks

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(ENGLISH FOR TECHNICAL COMMUNICATION)

1. Do as directed : 2 × 10

(*i*) He is _____ MP.
(Use correct article a, an)

(*ii*) You are good _____ nothing.
(Preposition)

(*iii*) Please _____ me in this regard.
(Use the correct word advice/advise)

(*iv*) Commander in Chief. (Plural)

(*v*) Ball is in your court.
(Make a sentence using the idiom)

(*vi*) Write the abstract noun of 'Long'.

(*vii*) Psychology : Psichology.
(Chose the right spelling and write)

(*viii*) Make a sentence using the word 'inform' as a verb.

(*ix*) Either Rama and Hari is coming.
(Correct the sentence)

(*x*) He said, he was coming.
(Change the speech)

2. (*a*) Do as directed : 5

(*i*) This is an after _____ .
(affect/effect)

(*ii*) He is taller _____ his brother.
(than/then)

(*iii*) I have some _____ . (fear/scare)

(*iv*) I _____ her on her cooking.
(complement/compliment)

(*v*) He _____ to school yesterday.
(goes/went)

(*b*) Write a letter to your elder brother convincing him that you were not in the mob, which ransacked the university canteen. (300 words). 15

Or

(*c*) Use correct prepositions : 10

(*i*) The bone was _____ the dog.
(of/for)

(*ii*) He is preoccupied _____ his book.
(for/with)

(*iii*) He is prohibited _____ entering the hall. (from/with)

(*iv*) What is the time _____ your watch.
(in/by)

(*v*) Give me a bottle _____ milk. (in/of)

(*d*) Prepare your own bio-data for your first interview. 10

3. Do as directed :

(*a*) Write a paragraph on how to tackle the recent cyber attack. 10

(*b*) Write a paragraph on Religion in our daily life. 10

Or

(*c*) What precautions a mobile user shall take, while using his/her mobile phone ? (300 words) 10

(*d*) Write a paragraph on Science in our daily life. 10

4. (*a*) Do as directed : 2 × 5

(*i*) A hot potato. (Make sentence)

(*ii*) What a group of monkey is called.

(*iii*) Pain (write antonym)

(*iv*) What a group of lion is called.

(*v*) Lose and Loose — write the difference between the two words in sentences.

(*b*) Write an application to your HOD for organising a study tour. (250 word) 10

Or

(*c*) Make a report on the farewell ceremony of your department. 10

(*d*) Write a paragraph on the importance of soft skill in career building. 10