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MCA 1st Semester (current) CBCS Scheme

w.e.f. 2016-17 Examination,

November/December-2019

COMPUTER FUNDAMENTALS AND

PROGRAMMING IN C

Paper-16MCA31C2

Time allowed : 3 hours]

[Maximum marks : 80

Note : Question No. 1 is compulsory. Attempt four more questions selecting one from each unit.

1. Answer the following questions briefly : $8 \times 2 = 16$
 - a) Explain compiler and write its two uses.
 - (b) Write applications of computers in weather forecasting.
 - (c) Describe two advantages of decision tables.
 - (d) Write use of pointer operators with examples.
 - (e) Explain nesting of loops with C code segment
 - (f) Write one advantage of union with C code segment.
 - (g) Explain advantages of macros in C.
 - (h) Discuss advantages of conditional operator with C code.

Unit-I

2. (a) What are input devices ? How these are useful and used ? Discuss one input device in detail with an example.

8

(2)

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- (b) Discuss uses and advantages of interpreter, loaders and linkers with examples. 8

3. Explain the following briefly with suitable examples :

- (a) Computer viruses and their solutions
(b) Programming languages generations and their relative merits 8 each

Unit-II

4. (a) What are control statements ? How these are useful and used ? Explain with C codes examples. 10

(b) Explain advantages of switch, break and continue statements with suitable C code segments. 6

5. Describe the following with examples :

- (a) Differentiate between decision tables and flow charts
(b) Use of bit-wise operators with C codes 16

Unit-III

6. (a) What is function ? How is it used and useful ? Explain how parameters are passed in functions with suitable C codes. 8

(b) Describe advantages of storage classes and techniques of function calling with C code segments. 8

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7. Explain the following with examples : 8 each

- (a) Pointer to structure and pointer to functions with C code segments
(b) Recursion and its advantages with C codes.

Unit-IV

8. (a) What are files ? How these are used and useful ? Discuss its types with C codes. 10

(b) Explain array of structure with suitable examples and C codes. 6

9. Explain the following with examples :

- (a) Modes of files with C codes
(b) Nesting of structures and Passing structure to a function with C code 16