

Roll No. ....

**67007**

**MCA 1st Semester (Current)**

**CBCS Scheme w.e.f. 2016-17**

**Examination – December, 2018**

**COMPUTER FUNDAMENTAL & PROGRAMMING IN C**

**Paper : 16MCA-31C2**

**Time : Three Hours ]**

**[ Maximum Marks : 80**

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*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

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**Note :** Attempt *five* questions in all. Question No. 1 is *compulsory*. In addition to compulsory question, attempt *four* more questions selecting *one* question from each Unit.

**1.** Answer the following questions briefly :  $2 \times 8 = 16$

- (a) Define system software and write its two uses.
- (b) Write use of computers in remote sensing.
- (c) Describe two advantages of C pre-processor.
- (d) Discuss pointer operators with examples.

- (e) Explain nesting of structures with C code segment.
- (f) Write one use of union with C code segment.
- (g) Explain advantages of lesser number of keywords in C.
- (h) Discuss array of pointer with C code.

#### UNIT - I

2. (a) What is operating system? How is it useful and used ? Discuss its functions with examples. 8
- (b) Discuss uses and advantages of loaders, linkers, 4GL languages with examples. 8
3. Explain the following briefly with suitable examples :
  - (i) Computer crimes and their solutions.
  - (ii) Programming languages classification and their relative merits 8 each

#### UNIT - II

4. (a) What are bit-wise operators ? How these are useful and used ? Explain with examples. 8
- (b) Discuss uses and advantages of switch, break and continue statements with suitable C code segments. 8
5. Describe the following with examples : 16
  - (a) Differentiate between decision tables and Pseudo codes
  - (b) Use of nested for loops with C codes

#### UNIT - III

6. (a) What is dynamic memory allocation ? How is it used and useful ? Explain with suitable C codes. 8
- (b) Discuss function returning pointers with C code segment. 8
7. Explain the following with examples : 8 each
  - (i) Storage classes with C code segments
  - (ii) Uses of recursion with C codes examples

#### UNIT - IV

8. (a) What is modes of files ? How these are used and useful ? Discuss with C codes. 10
- (b) Explain command line arguments with suitable examples and C codes. 6
9. Explain the following with examples : 16
  - (i) Five file handling functions with C codes
  - (ii) Passing structure to a function with C code