Roll No. ....

B.C.A. (Part-III)

Sys. Desi. Con.

302

B.C.A. (Part-III) EXAMINATION, 2020
(Faculty of Science)

(Three-Year Scheme of 10+2+3 Pattern)

⌐SYSTEM DESIGN CONCEPTS

Time Allowed : Three Hours

Maximum Marks : 100

Answer of all the questions (Short answer as well as descriptive) are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of questions.

Question paper consists of *three Parts.*

All three parts are *compulsory.*

PART - I : *(Very Short Answer) consists of 10 questions of 2 marks each. Maximum limit for each question is upto 40 words.*

PART - II : *(Short Answer) consists of 5 questions of 4 marks each. Maximum limit for each question is upto 80 words.*

PART - III : *(Long Answer) consists of 5 questions of 12 marks each with internal choice.*

PART - I

1. (a) What are the advantages of Waterfall model ?   10x2=20

   (b) What is feasibility study ?

   (c) What is Entity-relationship diagram ?

   (d) What is DFD ?

   (e) Differentiate between Verification and Validation.

   (f) What is Integration testing ?

   (g) What is Cost Estimation Model ?

   (h) What is the objective of Software Design ?

   (i) What is Management Information System ?

   (j) What is Pitfalls in MIS development ?

2. (a) What are the benefits of prototyping ?
   (b) What is the difference between Decision tree and Decision table ?   5x4=20
   (c) What is the difference between White box and Black box testing ?
   (d) Explain the object oriented concepts.
   (e) Explain the components of MIS.

PART - III

3. What is a System ? Explain the different phases of SDLC in detail.

   OR   2+10

   Explain various fact finding methods of system analysis.

   12

4. What is a Data Flow Diagram ? Discuss the various symbols and rules for drawing DFD with an   2+10
   example.

   OR

   Write short note on :   3x4=12
   (a) Structured English
   (b) Structured Charts
   (c) Attributes

5. What is Testing ? Discuss why testing is needed ? Explain Integration testing, System testing and
   Acceptance testing.   2+2+8=12

   OR   3x4=12

   Write short note on :
   (a) Maintenance and documentation
   (b) System testing
   (c) Validation

6. Write short note on :   6x2=12
   (a) Cost benefit analysis
   (b) Software project planning

           OR
   Explain COCOMO model in detail.   12

7. Write short note on :   6x2=12
   (a) Analysis and Design of Information System
   (b) Implementation and Evaluation

                   OR
   What is Management Information System ? Explain characteristics and components of MIS.   2+10=12

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2

302