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MCS-014

M.C.A. (REVISED)/B.C.A. (REVISED)

(MCA/BCA)

Term-End Examination

June, 2020

MCS-014 : SYSTEMS ANALYSIS AND DESIGN

Time : 3 Hours

Maximum Marks : 100

Weightage : 75%

Note : (i) Question No. 1 is compulsory.

(ii) Attempt any three questions from the rest.

1. (a) Draw a Data Flow Diagram (DFD) upto level-3 clearly showing various processes, data flow and data repositories for Doctor's

appointment in a Hospital Management System. Make necessary assumptions. 10

(b) Write SRS outline for Doctor's Appointment in a Hospital Management System. Make necessary assumptions. 10

(c) Explain the tasks performed by a Systems Analyst. 10

(d) Explain how Waterfall model and Prototyping model can be accommodated in a spiral process model. 10

2. (a) What is JAD ? What are its benefits and who are the key players ? What are their roles ? 6

- (b) Give full form of CASE. Draw a CASE diagram showing all components. Explain each component briefly. 6
- (c) Describe the characteristics of a good interface design. Describe the process of designing forms stating different steps involved. 8
3. (a) Explain the different types of feasibility needed to be studies during software development. 10
- (b) How can risks and threats to IT system be identified, analyzed and managed ? 10
4. (a) What are the steps involved for designing a database. Explain using an example. 10

(b) What is modularity ? How can it be achieved in Design ? Explain the advantages of modular design. 10

5. Write short notes on the following : $5 \times 4 = 20$

- (a) Data Dictionary
- (b) Decision Support System
- (c) Coupling
- (d) Cost-Benefit Analysis