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Roll No. | | | | | | | | | | |

MCA-5
1st Year Examination, Calendar Batch 2017
System Analysis & Design
CBNST

Time : 3 Hours] *[Max. Marks : 100*

***Note**. Attempt any **five** questions. Each questions carry equal marks.*

Q.1. Using R-K method find y when x=1.2 in steps of 0.1 given that $dy / dx = x^2 + y^2$ and y (1) = 1.5.

Q.2. Evaluate $\int_0^6 dx/1 + x^2$ by using (1) Simpson's 1/3 rule (2) Simpson's 3/8 rule and compare the result with its actual value.

Q.3. Find a real root of the equation $x^3 - 2x - 5 = 0$ by the method of false position correct to three decimal places.

Q.4. Compute the differences up to the fourth order for the table of values below:

x :	0	1	2	3	4	5	6	7
f(x) :	0	0	0	0	24	120	360	840

Q.5. What are the inputs to design phase of forms and reports? What are its deliverables? Explain in brief.

Q.6. In online system, what are the various type of errors in data? What type of techniques can be applied to validate the errors?

Q.7. What is the difference between open – ended questions and closed – ended questions?

Q.8. What is a data flow diagram? What characteristics and functions of data in information systems are modelled by DFD? Why do systems analysts use DFDs?