M. TECH. –III (COMPUTER ENGINEERING)   (CBCS – 2015 COURSE) : SUMMER - 2018
SUBJECT: ELECTIVE –I: d) BIG DATA ANALTICS

Day:	**Tuesday**	S-2018-3047	Time:	**11.00 AM TO 02.00 PM**
Date:	**29/05/2018**		Max. Marks: 60	

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.
4) Assume suitable data if necessary.

SECTION- I

Q.1   Describe the Big Data Stack with the help of neat Diagram.   **(10)**

OR

Q.1   List and describe three characteristics of Big Data.

Q.2   A Client needs to maintain database design for a blog website. List the **(10)** RDBMS scheme for the design of comments, post and tag list. Also write the structure of collection in MongoDB Schema.

OR

Q.2   Explain the advantages of MongoDB over RDBMS.

Q.3   Following are the salary levels of 5 Managers and sizes of Budgets they **(10)** manage.

	1	2	3	4	5	6	7	8	9	10
Salary in thousand	59.0	67.4	50.4	83.2	10.56	86.0	74.4	52.2	82.6	59.0
Budget in Lakhs	3.5	5.0	2.5	6.0	7.5	4.5	6.0	4.0	4.5	5.0

Plot a graph for Budget against salary and formulate a Regression Equation.

OR

Q.3   How to compute the unique Event occurrence using Time Series Analysis?

SECTION- II

Q.4.   How regression is used in Data Reduction Techniques.?   **(10)**

OR

Q.4.   Let dataset D be a collection of objects D = {O_1, O_2.......O_D} and P be the set of all possible patterns occurring in D. Give the counting function 'g' and discuss the support patterns in the dataset 'D'.

Q. 5   Explain Apriori Algorithm.   **(10)**

<div align="center">OR</div>

Q.5   Derive the K-means clustering algorithm and give its advantages and disadvantages.

Q.6   Comment on Visual Data Analysis Techniques with suitable example.   **(10)**

<div align="center">OR</div>

Q.6.   What is MapReduce? Explain working of Hadoop with the help of example.

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