Total No. of printed pages = 3 7/423 CSE 1818 PE 61 Roll No. of candidate Bina Charleman Central Library Girijananda _ wahury University 2023 Hatkhowapara, Azara, Ghy-17 B. Tech. 8th Semester End-Term Examination CSE BIG DATA ANALYTICS (New Regulation w.e.f. 2017-18 & New Syllabus w.e.f. 2018-19) Full Marks - 70 Time - Three hours The figures in the margin indicate full marks for the questions. Answer question No. 1 and any four from the rest. Answer the following multiple choice questions: $(10 \times 1 = 10)$ The word Big data' was coined by (a) Roger Mougalas John Philips (b) Simon Woods (c) (d) Martin Green - bytes size is called Big Data. (ii) Data in — (a) Tera (b) Giga Peta (c) (d) Meta (iii) Concerning the Forms of Big Data, which one of these is odd? (a) Structured (b) Unstructured Processed (c) (d) Semi-Structured (iv) Listed below are the three steps that are followed to deploy a Big Data Solution except (a) Data Ingestion (b) Data Processing Data dissemination (d) Data Storage Which industries below listed employ the use of so-called "Big Data" in their day to day operations? (a) Weather forecasting (b) Marketing

All of the above

Turn over

(d)

Healthcare

(a) Data examination (b) Information analysis (c) Big data analytics (d) Data analysis (vii) ———————————————————————————————————	(vi)	The examination of large amounts of data to see what patterns or other useful information can be found is known as								
(vii) — has the world's largest Hadoop cluster. (a) Apple (b) Datamatics (c) Facebook (d) None of the above (viii) The feature of big data that refers to the quality of the stored data is (a) Variety (b) Volume (c) Variability (d) Veracity (ix) — is general-purpose computing model and runtime system for distributed data analytics. (a) MapReduce (b) Drill (c) Oozie (d) None of the above (x) All of the following accurately describe Hadoop, except: (a) Open-source (b) Real-time (c) Java-based (d) Distributed computing approach Answer any four from the following Girjananda Chowdhury University Hatchowapara, Azara, Ghy-17 (3 × 5 = 15) (a) What are the properties of Big-data system? (b) Differentiate between vertical and horizontal scaling? (c) How distributed file systems meet the storage requirement checklist? 3. Answer the following (a) Write about different 5Vs that define a Big data system. (b) What is Big data analytics? (c) Write on low latency reads and updates. (d) Write about different types of data. (e) Explain graph schema. 4. Answer the following (a) Is there any scalability issue with relational database? Justify your answer.											
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			(b) What is CAP theorem?								
(c) Write on data robustness and fault tolerance.					fault to	olerance.					

5. Answer the following

 $(3 \times 5 = 15)$

- (a) How debugability is accomplished in the Lambda Architecture?
- (b) What is immutable schema?
- (c) What are the advantages of using immutable schema in Big data systems?

6. Answer the following

 $(3 \times 5 = 15)$

- (a) "Unstructured data is rawer than normalized data" justify your answer.
- (b) Write short note on Hadoop distributed file system.

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(c) Write short note on MongoDB.

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