| Name: <br> Enrolment No: |  |  |  |
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| Cou <br> Prog <br> Cou | UNIVERSITY OF PETROLEUM AND ENERGY STUDIE School of Computer Science End Semester Examination, December 2021 : Data Analytics for IoT : B.Tech CSE (ECRA/BAO/AIML/CCVT) Codemester $:$ CSBA4015P | S <br> II <br> Hours <br> 0 |  |
| SECTION A |  |  |  |
|  | SECTION A <br> Each Question will carry 04 Marks (Explain short answers between 50-60 words) | Marks |  |
| Q1 | Explain the impact of Internet of Things on Analytics. | 04 | CO1 |
| Q2 | Describe the benefits of BI. | 04 | CO4 |
| Q3 | What are the five key area's of BI strategy. | 04 | CO1 |
| Q4 | Explain the centralized architecture with decentralized architecture for BI. | 04 | CO4 |
| Q5 | Explain the barriers and benefits of big data analytics. | $\begin{gathered} \hline 02+ \\ 02 \\ \hline \end{gathered}$ | CO2 |
| SECTION B |  |  |  |
| SECTION B <br> 1. Each question will carry 10 marks <br> 2. Instruction: Write short / brief notes (Explain short notes between 150-200 words) |  |  |  |
| Q7 | Describe Analytics and state the different types of Analytics. | 10 | $\mathrm{CO2}$ |
| Q8 | Explain the following: <br> a. Data Warehouse <br> b. ETL <br> c. OLAP | 4+3+3 | CO1 |
| Q9 | Explain the OLAP server architectures | 10 | $\mathrm{CO3}$ |
| Q10 | Discuss the use of click stream analysis for e-commerce websites. <br> OR <br> P.T.O. | 10 | $\mathrm{CO3}$ |


|  | Analyze the following in context to Real Time analytics: <br> 1. Relational OLAP <br> 2. Hybrid OLAP <br> 3. Multidimensional OLAP <br> 4. OLAP operations | $\mathbf{( 2 . 5 * \mathbf { 4 } )}$ |  |
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| SECTION C | $\mathbf{2 0}$ | $\mathbf{C O 4}$ |  |
| SECTION C <br> 1. Each Question carries 10 Marks. 10*2=20 <br> 2. Instruction: Write long answer. (Explain long answers up to 350 words) |  |  |  |
| Q8 | Design and explain the integration of devices on Cloud for analytics. (Design, develop, <br> Implement) | $\mathbf{2 0}$ | $\mathbf{C O 3}$ |
| Q9 | Design a workflow for data visualization for a mart selling fruits and vegetables. <br> Design the tasks of BI lifecycle for implementation in traffic management in <br> Dehradun city. | OR |  |

