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|  | <p align="center">PES University, Bengaluru (Established under Karnataka Act No. 16 of 2013)</p> | <p align="center">UE20CS906</p> |
| <p>SAMPLE: END SEMESTER ASSESSMENT (ESA) M TECH DATA SCIENCE AND MACHINE LEARNING_ SEMESTER I UE20CS906 - Data Visualization using Tableau</p> | | |
| | Answer All Questions | Max Marks: 100 |

| INSTRUCTIONS | | | |
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| <ul style="list-style-type: none"> All questions are compulsory. Please enter your Name and SRN number in the beginning of the .twbx file. The compressed file contents to be uploaded in Olympus strictly should be a .twbx file. | | | |
| SECTION A – 30 MARKS | | | |
| 1 | a) | Using the billionaires dataset, understand the data variable description and answer the following questions accordingly. <ul style="list-style-type: none"> a. Create a calculated field on Total Net Wealth to remove the special characters in the data. Name the calculated field as Net Wealth. (2 marks) b. Using a Word Cloud, find the industry sources which have the highest number of billionaires. (3 marks) c. Using a bar chart, find the top N Billionaires. Use a parameter to customize the input. (5 marks) | 10 |
| | b) | <ul style="list-style-type: none"> a. Using a filled map, find the country with the highest number of billionaires. [Make sure that there are no unknowns in your visualization] (10 marks) b. Display the age distribution of the billionaires. Find the youngest and oldest billionaire. (10 marks) c. Create a visualization chart on the relationship between Industry and Avg. of Network and the average age of the billionaire. Find the average line for each category. (10 marks) <p>Compute the age into following groups: Age: 0-20, 21-45, 46-60, 61-80 and 80+</p> | 30 |

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| SECTION B – 30 MARKS | | | |
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| 2 | a) | <p>a. Create a map chart using the billionaire dataset. Display the count of billionaires in each country. Find the count of Billionaires with self made status. [Please note there are no unknowns in the map] (15 marks)</p> <p>b. Create a Dashboard displaying the following data :</p> <ul style="list-style-type: none"> • Industry • Wealth • Self Made Billionaires • Top 5 Billionaires <p>differentiating Indian billionaires and other world billionaires [Using an appropriate visualization] (15 marks)</p> | 30 |
| SECTION C – 40 MARKS | | | |
| 3 | a) | <p>Create a Dashboard containing the following data details</p> <p>a. Create a calculated field to differentiate the marital status as Married or not Married. Create a donut chart display on marital status. Use country and industry filters to customize the view.</p> <p>b. Create a box plot chart displaying their children count.</p> <p>c. Display the average age and net worth.</p> <p>d. Create a bubble chart with Top 5 Industry with network which are self made. Keep the Bubble chart as the master filter for Dashboard.</p> <p>e. Find a relation between the top 5 Industry and Age using an appropriate visualization. Compute the age into following groups: Age: 0-20, 21-45, 46-60, 61-80 and 80+</p> <p>Mention your insights using summary .</p> | 30 |