

## Simulation lab (MC 503)

### ASSIGNMRNT-4

#### Plotting

- (1) Create a **simple** pie chart for the AQI of Indian cities on 10 Feb 2021 and also, plot a **3D** pie chart for the given data below. Also add title of the chart, slice percentage and chart legend.

City	Patna	Ratlam	Mysore	Jaunpur	Pitampura	Panchkula
AQI	276	7	92	268	412	86

- (2) Create a bar plot of the run scored by Indian players in the 1<sup>st</sup> inning of the 1<sup>st</sup> Cricket test match between India Vs England given below and add chart title as “Player performance” and x-axis and y-axis labels as “Players names” and “Runs” respectively.

Players Name	Runs
Rohit	6
Subhman	29
Pujara	73
Kohali	11
Rahane	1
Pant	91
Washington	85
Ashwani	31
Nadeem	0
Ishant	4
Bhumrah	0

- (3) Create a bar chart with the groups of bar and stacks in each bar by using a matrix as input values as given below. Add bar chart title x-axis and y-axis levels as players name and performance respectively. Also, add a legend to the chart with Runs, Balls and 4s with different colors.

Players Name	Runs	Balls	4s
Rohit	6	9	1
Subhman	29	28	5
Pujara	73	173	11
Kohali	11	48	0
Rahane	1	6	0
Pant	91	58	9
Washington	85	138	12
Ashwin	31	91	3
Nadeem	0	12	0
Ishant	4	11	1
Bumrah	0	2	0

- (4) Create a box plot graphs for the relationship between mpgl (miles per gallon) and cyl (number of cylinders) is “mtcars” datasets. Add main title as “Mileage Data” and x and y-axis labels as “Number of cylinders” and “Miles per Gallon” respectively.
- (5) Generate 50 random integers between 0 to 100 and create a histogram plot by specifying x-axis level, color, border color, x-axis and y-axis limits and breaks.