

# Research Methodology Practicals

**Subject: Research Methodology**

**Course: BSc (Hons) Electronics**

**Semester: 6<sup>th</sup>**

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**Deen Dayal Upadhyaya College**

(University of Delhi)

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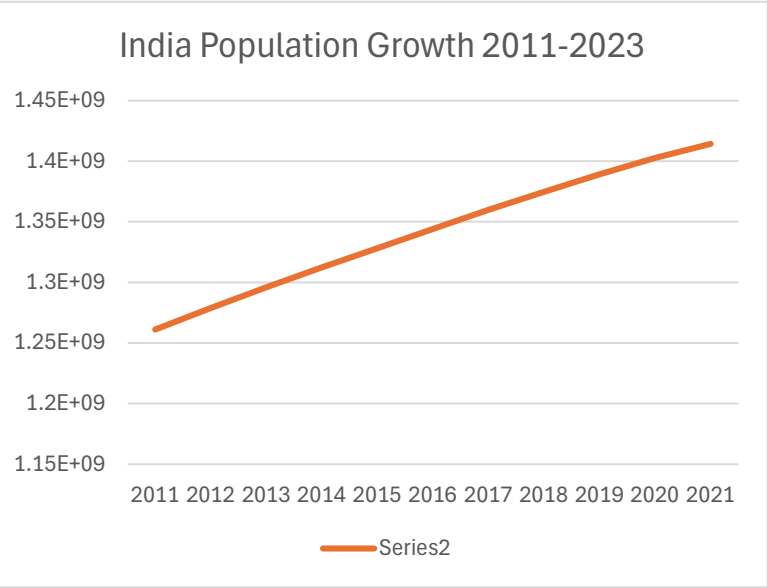
**Submitted to:**

**Prof. Manoj Saxena sir**

Indicator Name	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Population, total	1261224954	1.28E+09	1E+09	1.31E+09	1.33E+09	1.34E+09	1.36E+09	1.37E+09	1.39E+09	1.4E+09	1.4E+09

Population Trends

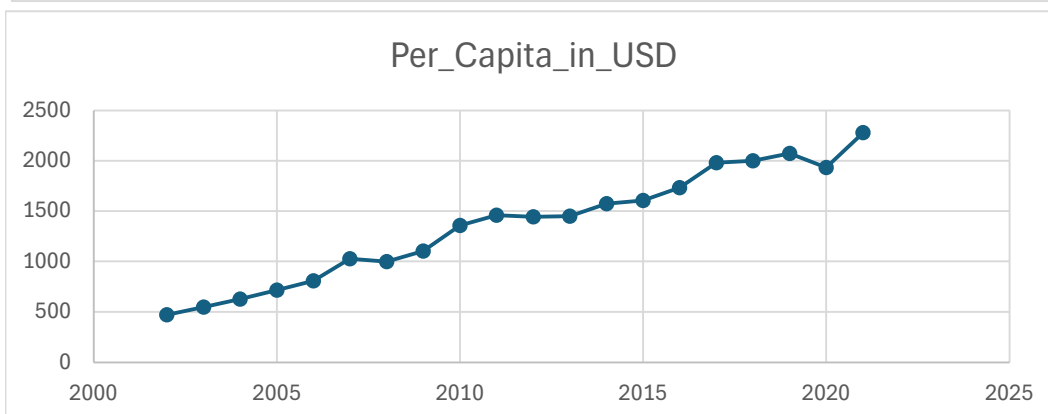
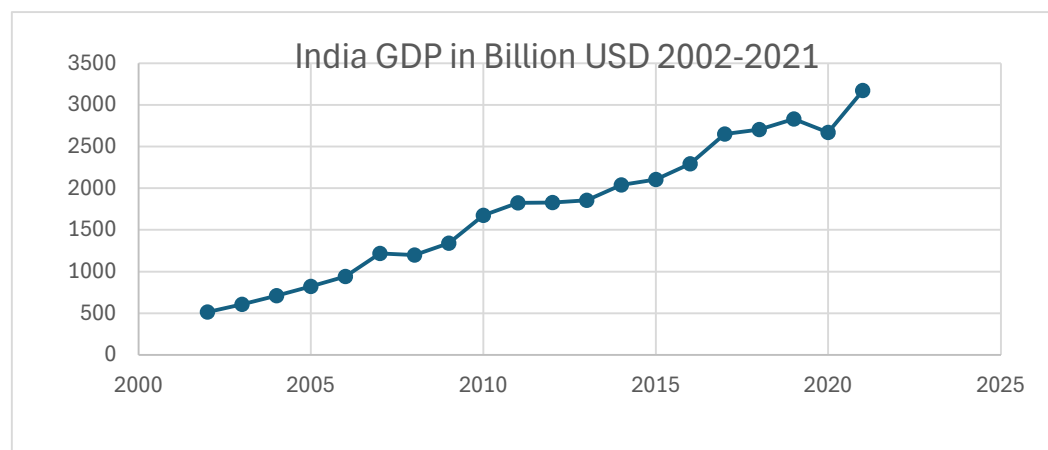
Mean	1.34E+09
Median	1.34E+09
Standard Deviation	51212131



The graph and the corresponding statistics show a trend of increasing population in India

Source:World Bank

Year	GDP_In_Billion_USD	Per_Capita_in_USD	Percentage_Growth
2021	3173.4	2277	8.95
2020	2667.69	1933	-6.6
2019	2831.55	2072	3.74
2018	2702.93	1998	6.45
2017	2651.47	1981	6.8
2016	2294.8	1733	8.26
2015	2103.59	1606	8
2014	2039.13	1574	7.41
2013	1856.72	1450	6.39
2012	1827.64	1444	5.46
2011	1823.05	1458	5.24
2010	1675.62	1358	8.5
2009	1341.89	1102	7.86
2008	1198.9	999	3.09
2007	1216.74	1028	7.66
2006	940.26	807	8.06
2005	820.38	715	7.92
2004	709.15	628	7.92
2003	607.7	547	7.86
2002	514.94	471	3.8

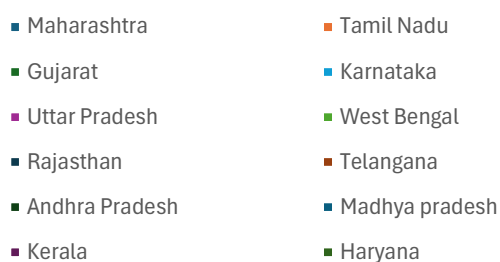


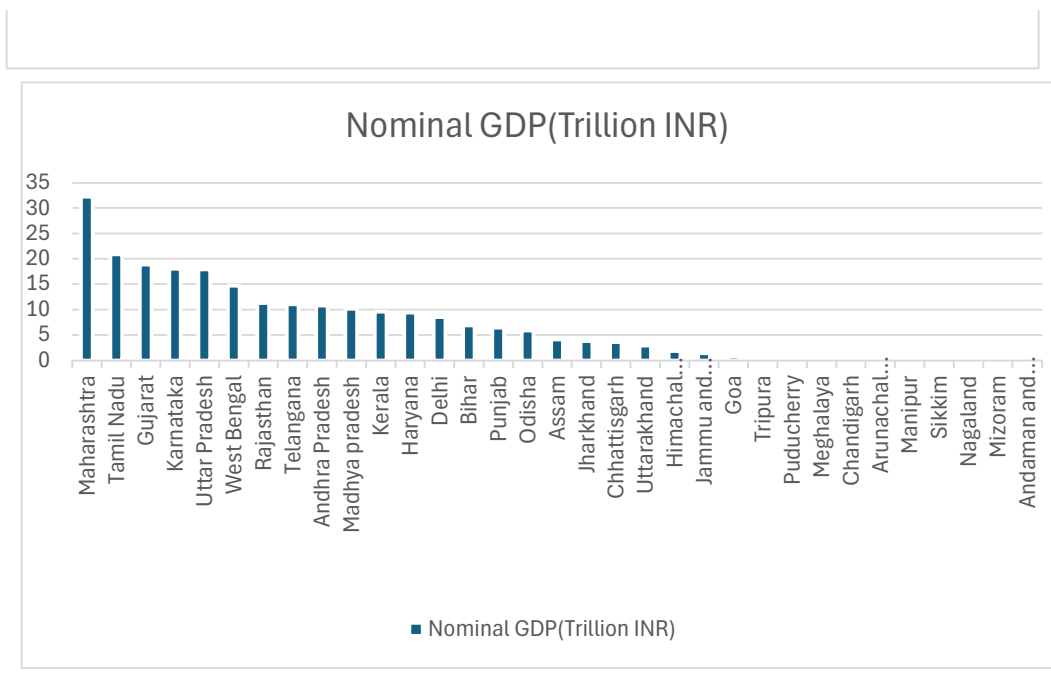
## Conclusions

The data shows that India's GDP has been increasing over the years. As well as its per capita income

Rank	State_UT	Nominal GDP(Trillion INR)	Nominal GDP(Billion USD)
1	Maharashtra	32.24	450
2	Tamil Nadu	20.91	290
3	Gujarat	18.85	260
4	Karnataka	18.05	250
5	Uttar Pradesh	17.91	250
6	West Bengal	14.7	210
7	Rajasthan	11.33	160
8	Telangana	11.08	160
9	Andhra Pradesh	10.81	150
10	Madhya pradesh	10.15	140
11	Kerala	9.62	130
12	Haryana	9.4	130
13	Delhi	8.56	120
14	Bihar	6.86	96
15	Punjab	6.44	90
16	Odisha	5.85	82
17	Assam	4.09	57
18	Jharkhand	3.83	54
19	Chhattisgarh	3.62	51
20	Uttarakhand	2.93	41
21	Himachal Pradesh	1.82	26
22	Jammu and Kashmir	1.38	19
23	Goa	0.772	11
24	Tripura	0.461	6.5
25	Puducherry	0.359	5
26	Meghalaya	0.33	4.6
27	Chandigarh	0.318	4.5
28	Arunachal Pradesh	0.234	3.3
29	Manipur	0.231	3.2
30	Sikkim	0.222	3.1
31	Nagaland	0.215	3
32	Mizoram	0.176	2.5
33	Andaman and Nicobar I	0.066	930

Nominal GDP(Trillion INR)



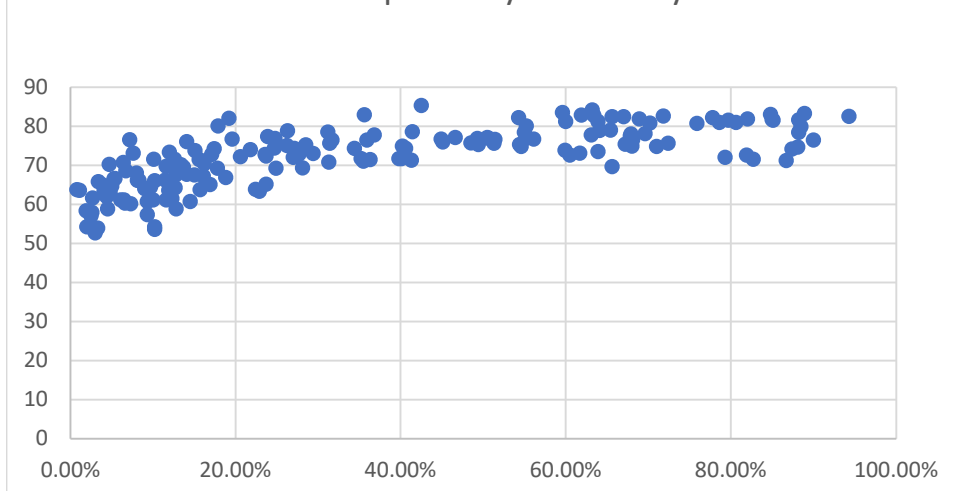


# Conclusions

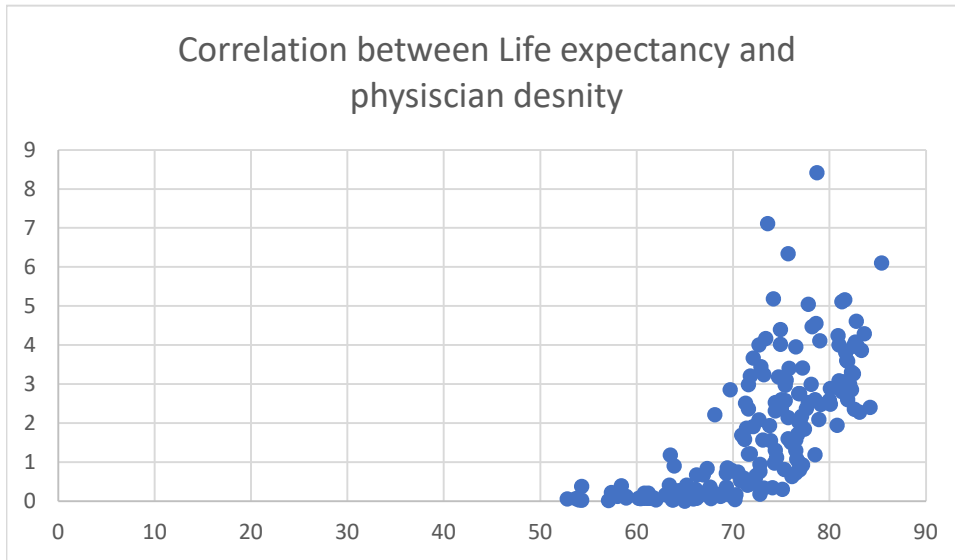
The statewise data shows a dominant Maharashtra and states of Southern India in contribution to GDP

South Sudan	\$11,997,800,751		57.6	
Spain	\$1,394,116,310,76	88.90%	83.3	3.87
Sri Lanka	\$84,008,783,756	19.60%	76.8	1
Sudan	\$18,902,284,476	16.90%	65.1	0.26
Suriname	\$3,985,250,737	12.60%	71.6	1.21
Sweden	\$530,832,908,738	67.00%	82.5	3.98
Switzerland	\$703,082,435,360	59.60%	83.6	4.3
Syria	\$40,405,006,007	40.10%	71.8	1.22
Tajikistan	\$8,116,626,794	31.30%	70.9	1.7
Tanzania	\$63,177,068,175	4.00%	65	0.01
Thailand	\$543,649,976,166	49.30%	76.9	0.81
East Timor	\$1,673,540,300	17.80%	69.3	0.72
Togo	\$5,459,979,417	14.50%	60.8	0.08
Tonga	\$450,353,314	6.40%	70.8	0.52
Trinidad and Tobago	\$24,100,202,834	12.00%	73.4	4.17
Tunisia	\$38,797,709,924	31.70%	76.5	1.3
Turkey	\$754,411,708,203	23.90%	77.4	1.85
Turkmenistan	\$40,761,142,857	8.00%	68.1	2.22
Tuvalu	\$47,271,463			0.92
Uganda	\$34,387,229,486	4.80%	63	0.17
Ukraine	\$153,781,069,118	82.70%	71.6	2.99
United Arab Emirates	\$421,142,267,938	36.80%	77.8	2.53
United Kingdom	\$2,827,113,184,69	60.00%	81.3	2.81
United States	\$21,427,700,000,0	88.20%	78.5	2.61
Uruguay	\$56,045,912,952	63.10%	77.8	5.05
Uzbekistan	\$57,921,286,440	10.10%	71.6	2.37
Vanuatu	\$917,058,851	4.70%	70.3	0.17
Venezuela	\$482,359,318,768	79.30%	72.1	1.92
Vietnam	\$261,921,244,843	28.50%	75.3	0.82
Yemen	\$26,914,402,224	10.20%	66.1	0.31
Zambia	\$23,064,722,446	4.10%	63.5	1.19
Zimbabwe	\$21,440,758,800	10.00%	61.2	0.21

Life expectancy vs Literacy

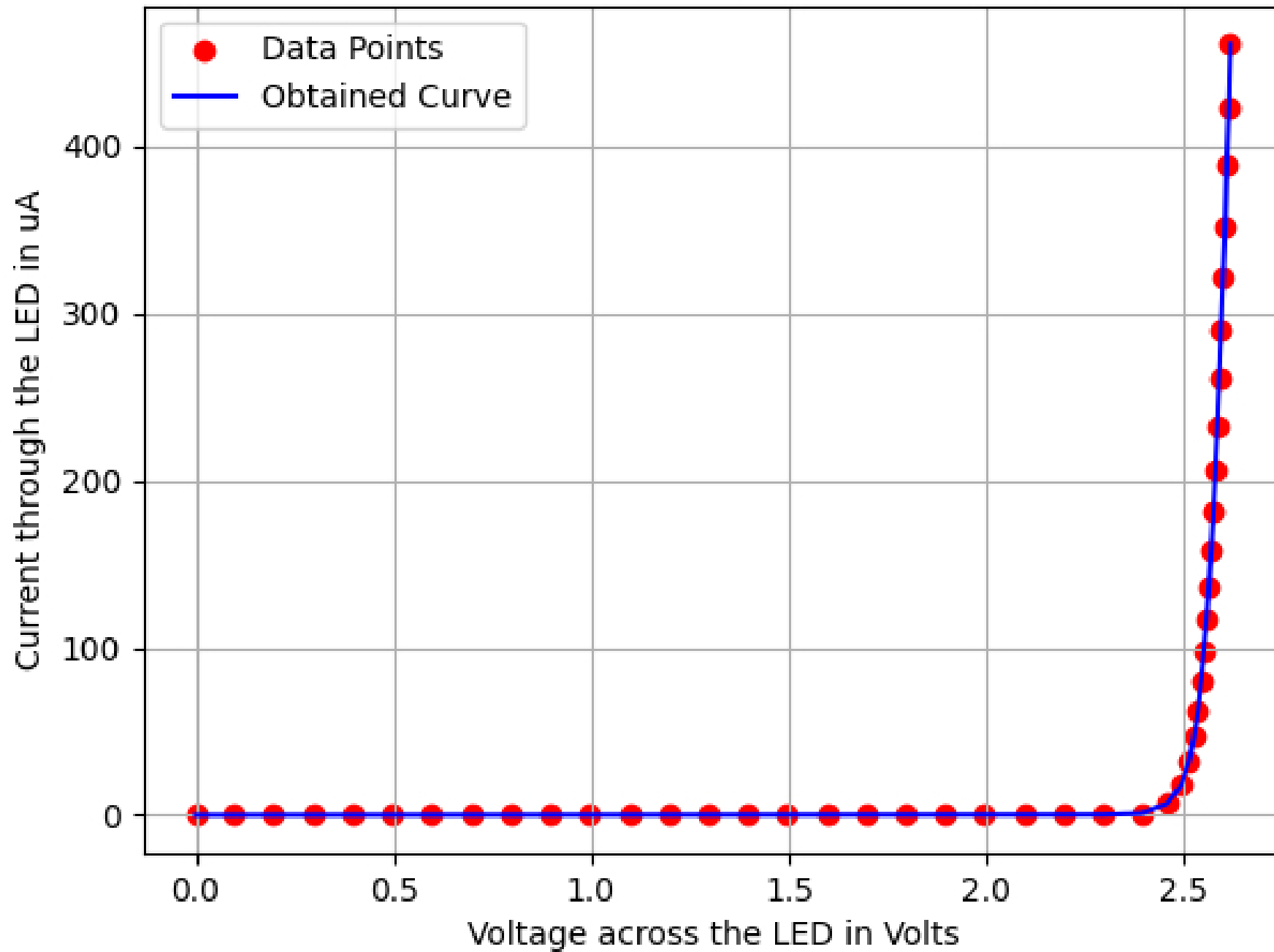


Correlation Coefficient 0.736749055  
Between Literacy rate and life expectancy  
Conclusion:- Better Literacy leads to longer life



Correlation Coefficient between Life expectancy and Physician Density 0.701084689  
Conclusion:- More number of Physicians lead to better life expectancy

5mm Blue LED I-V Characteristic Curve





Newton's Law of Cooling

