Note: All questions are compulsory. Marks are indicated against each question.

A. Long Answer Questions (word limit: 500 words for each question)

1) Bring out the salient features of Krugman's agglomeration and dispersion theory.

**Ans:** The "home market effect" that Krugman discovered in NTT also features in NEG, which interprets agglomeration "as the outcome of the interaction of increasing returns, trade costs and factor price differences." If trade is largely shaped by economies of scale, as Krugman's trade theory argues, then those economic regions with most production will be more profitable and will therefore attract even more production. That is, NTT implies that instead of spreading out evenly around the world, production will tend to concentrate in a few countries, regions, or cities, which will become densely populated but will also have higher levels of income.

Manufacturing is characterized by increasing returns to scale and less restrictive and expansive land qualifications as compared to agricultural uses. So, geographically where can manufacturing be predicted to develop? Krugman states that manufacturing's geographical range is inherently limited by economies of scale, but also that manufacturing will establish and accrue itself in an area of high demand. Production that occurs adjacent to demand will result in lower transportation costs, but demand, as a result, will be greater due to concentrated nearby production. These forces act upon one another simultaneously, producing manufacturing and population agglomeration. Population will increase in these areas due to the more highly developed infrastructure and nearby production, therefore lowering the expense of good, while economies of scale provide varied choices of goods and services. These forces will feed into each other until the greater portion of the urban population and manufacturing hubs are concentrated into a relatively insular geographic area.

2) Give a brief account of the major challenges for Indian manufacturing sector.

**Ans:** Challenges of Manufacturing in India:

- **Power availability:** The major challenge in Indian manufacturing is low power availability. Due to unavailability of power 24 hours per day, there is decrease in productivity and efficiency, and lower output rates.
- **Labour Productivity:** Labour productivity is lesser in India than many competing countries. This is because of lag in supply chain management, transportation, production planning, and maintenance.
- **Intellectual Property Protection and Enforcement:** IP protection and enforcement is an expensive and high risk in India. Another challenge with IP rights in India is that India is currently going through some significant IP reforms, which make things more complex and, at least for now, uncertain.
- **Cost and Fragmentation of Transportation and Logistics:** Transportation is very costly and slow in India. It can take long delivery time to get products to the coasts from some places in India. Furthermore, logistics are inferior. The positive point is that the Indian government notices this problem in infrastructure and is working to resolve it.

Manufacturing sector in India is still not living up to its expectations. India is not just a big consumer market but also has a potential to become a manufacturing hub in the near future. As compared to other sectors, Productivity of the manufacturing sector is still very low.

Problems that manufacturing sectors face in India are highlighted below:

**Land Matters**
- Land acquisition is slow and tedious process in India.
- Many times Land Title is not clear and so it hampers the manufacturing set ups.
- No transparency in land dealings for units.

**Jobs and Skills Mismatch**
- **Skills Mismatch** is defined as the gap between an individual's job skills and the demands of the job market.
- **Skills mismatches** are driven by low quality education and systems, demographic change, rapid technological development, new sources of job creation and newly created forms of work organization.
- Education System in India is not at all helping manufacturing sector. There is a mismatch and many graduates are unemployed. In India now a days its not a big deal to get degrees. People have double degrees but no job.
- In rural areas there is dirt of skilled manpower.

**Slow growth in the field of R&D work**
- Research & Development Centers are very few in number.
- Lower expenditures on R&D and technology up-gradation.
- Training centers & ITIs have no trainers and no idea about the curriculum.

**Basic Infrastructure Development**
- Infrastructure development is only limited to construction of main roads or highways and not much attention paid to the development of airports, ports, ICDs & rural electrification. Infrastructure projects are only on papers for years.
- No proper warehouse or cold storage facilities.

**Industrial Policies & Regulations**
- **Industrial Policies** are not defined properly and are not executed well many times.
- Lack of lucrative Incentives to attract FDI or domestic players.
- Loopholes in Industrial Policies.
- Lack of awareness about industrial subsidies among SMEs.

**Labor Laws & Union Management**
- Labor’s productivity, competitiveness and economic growth also affect manufacturing sector growth story.
- Management of Unions is a tough task in India.
- Maintaining a fine tune between white collar & blue collar employees.