1. Discuss micro and macro economic aspects of mineral resources. 
   Ans: Micro economics refers to individual property such as mine and it includes the 
   evaluation of metal tonnage, cost of metal, mine life, calculation of net profit, 
   reinvestment in further exploration etc. On the other hand macro economics refers to 
   economics at a national or, global context. It includes national mineral policy, global 
   mineral policy such as law of sea, political scenario of the country, supply-demand, 
   international trade, cartels, sustainability, recycling etc.

2. What do you mean by baseline environmental study before mining? 
   Ans: Baseline environmental study refers to the estimation of impacts that could 
   potentially affect the environment during the operation of the mine and even long 
   after the mine is closed. It includes analysing and quantifying the relevant 
   environmental parameters for the areas containing the footprints of future mining. It 
   keeps a record of environmental conditions before begin of a project which can be 
   used for comparison between the real and perceived environmental impact during the 
   subsequent development, operational and closure phase of a mine.

3. Define NPV and how is it important in Project evaluation? 
   Ans: NPV or, the net present value defined as the difference between present values 
   of the cash flow minus the initial investment. For acceptance of a project the NPV has 
   to be positive.

4. What factors should be considered for formulation of National Mineral Policy? 
   Ans: The following factors should be taken into account
   - Domestic mineral requirements
   - Mineral commodities available for development
   - Undiscovered mineral resources those are likely to be discovered in future
   - Size and potential of the mining industry
   - Current and projected mineral demand and price
   - Sovereignty
   - Existing constitutional and administrative framework
   - Political considerations
   - Investment policies
   - Economic aspects such as taxation issues, export-import issues, employment
   - Land use priorities
   - Quality of life i.e. Socio- environmental impact
   - Legislative and legal frameworks etc.

5. Write down few lines about ‘Law of sea conventions’. 
   Ans: Law of sea conventions are the international agreements to establish guidelines 
   and rights of the nation for using world's ocean and marine mineral resources. United 
   Nations Convention on the Law of the Sea (UNCLOS), 1982 has been accepted by 
   several countries which replaced Law of the sea conventions, 1958. As of June 2016, 
   167 countries and the European Union have joined in the Convention.

6. Note down the jurisdictional zones those come under the law of sea. 
   Ans: The jurisdictional zones include internal waters, territorial sea, contiguous zone, 
   exclusive economic zone, continental shelf, high seas, the international seabed etc.
7. **List out the factors affecting Mineral prices.**
   **Ans:**
   - Reserve and cut off grade
   - Subsidy given to consumers
   - Mode of occurrence such as depth
   - Stocks
   - Inflation and input cost
   - Available technology
   - Performance of industry
   - Statutory and international price
   - Exchange rate etc.

8. **What is the duty of International seabed authority?**
   **Ans:** The International Seabed Authority is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea. It was established to organize, regulate and control all mineral-related activities in the international seabed area beyond the limits of national jurisdiction, an area underlying most of the world’s oceans.

9. **Why is there a requirement for recycling of metals?**
   **Ans:** Recycling of metals helps in efficient management of limited resources. It has also many environmental benefits as recycling process emits less green house gases and consumes less energy than extracting metals from virgin ore. It also reduces the waste produced by consumption. As metals are the basis of industrial revolution, their efficient reuse and recycle strengthen country's economy.

10. **What do you mean by 'scrap' in metal industries and how can it be helpful in maintenance of sustainability?**
    **Ans:** Scrap refers to the recyclable metal left over after product manufacturing. The recycling and reuse of scrap metals ultimately conserves natural resources. Apart from this scrap recycling has huge benefit on the environment as it reduces burden on landfills and conserve less energy to manufacture products than producing the same product from raw materials.

11. **Define ‘Hotelling Rule’ in mineral economics?**
    **Ans:** Hotelling rule is used in allocation of non-renewable resources. It defines how prices evolve over time. This is defined as "if the market is perfectly competitive, the net price (price minus marginal extraction cost) must rise at a rate equal to the rate of interest".

12. **What initiatives could be taken by governments after tragic incident of ‘Bolivian mining crisis’**
    **Ans:** Bolivia was the leading producer of Tin once upon a time and its contribution to global tin production was more than about 25% before 1984. COMIBOL was the organisation which was assigned with the responsibility of maximising the income by increasing the production and exportation of tin resources. Its economy was largely dependent on the export of tin. Most of this income was spent on the import of manufactured goods and for the betterment of the employees. Unfortunately, Bolivia did not pay much attention for the utilization of its resources by developing manufacturing techniques. So, when the international tin price fell substantially in 1985 afterwards, Bolivia faced a harsh mining condition as well as economic crisis.
The economy of the country fell to such extent that the inflation went up by 400-500%. The major lesson to the world from this event are-

- need of proper mineral policy
- there should be a balance between import and export
- earning from the exportation of the resources should be utilised in augmentation and development of manufacturing techniques