End Semester Examination: November 2022

Environmental Science

Max. Marks: 40

GUJARAT NATIONAL LAW UNIVERSITY GANDHINAGAR Course: Environmental Science Semester- I (Batch: 2022-27)

End Semester Examination: November 2022

Date: 10th Nov, 2022 Duration: 2 hours

Instructions:

- Read the questions properly and write the answers in the given answer book.
- Do not write anything on the question paper.
- The respective marks for each question are indicated in-line.
- Indicate correct question numbers in front of the answer.
- No questions or clarification can be sought during the exam period, answer as it is, giving reason, if any.
- Draw diagrams (if any) only with a pencil.
- Word limit: 2 marks- 200-300 words, 3 marks- 300-400 words, 4 marks 400-500 words.

Marks

- (2+3+3+4=
- 12)

Q.1 The Russia-Ukraine war is going on and Russia is one of the biggest suppliers of oil in the international market. In view of the turbulent situation, Country "Y" which is located in the vicinity of both these countries, geographically covered with ocean from all sides with not much oil reserves of its own to cater to its requirements, forms an Expert Committee to make the country self-reliant in all aspects including energy and also to propose measures for increasing its security. Answer the following questions to assist the Expert Committee:

- a) In order to make the country self-reliant, the Expert Committee plans to formulate a policy to boost industrialization, within the principles of International Environmental Law. Explain any two principles of International Environmental Law.
- b) The industrialization may also result in the release of pollutants in the environment, in view of which explain the biomagnification and its impact. Name the act/law that primarily governs the prevention and control of pollution of air in India, so that if required the committee can refer to the same.
- c) Explain with diagrams the mechanism to harness the tidal energy so that more reliance may be planned on the renewable source of energy.
- d) Explain any four types of nuclear weapons with diagrams, wherever possible, so that it can help the committee propose appropriate plan to develop the nuclear arsenal of its own to increase its security.
- Q.2 Country "X", a member of the United Nations, in order to ensure its contribution (4x3= towards the Sustainable Development Goals (SDGs), plans to undertake several activities 12) without impacting its overall growth, for which requires the answer to the following questions so as to frame appropriate policies:
 - a) "X" wants to undertake any activity by taking care of the rich biodiversity it possesses. Explain any four categories of rare species, as per the International Union for Conservation of Nature and Natural Resources, so that it can appropriately list the species available in its territory.

- b) "X" wants to ensure that none of its activities should result in the erosion of its soil resulting in a devastating situation. In order to ensure the same, explain any four factors that can result in soil erosion so that appropriate actions can be planned.
- c) The SDGs cannot be attained without taking care of its citizens, especially during a man-made or natural disaster. Hence, explain in detail the rehabilitation and its classes, so that appropriate policies can be framed.
- Q.3 Company "Y" is a multinational company and plans to set-up a plant in India looking (4x4= into the industry-friendly environment of the country. In order to ensure that its 16) activities are in abidance with the norms of the land, answer the following questions so as to help the company:
 - a) Explain the types of aerosols, including the parameters that can be used to detect the presence of aerosols and in-turn let identify the probable impacts of the aerosol on the climate of the region where the plant will be located.
 - b) The Company plans to prepare a Social Impact Assessment Report for submission with the authorities to get an early approval. In this regard, explain any four types of social impacts that shall be reflected in the report.
 - c) The Company also plans to constitute an internal auditing team so that it can continuously monitor its own activities. Explain any four tools and techniques used in environmental auditing, so that it can help the company in future.
 - d) "Y" plans to undertake the activities under the Clean Development Mechanism (CDM). To help understand the mechanism, mention the article of Kyoto Protocol that states about this mechanism. Also, explain the key features, purpose and eligibility for the CDM projects, so that the company can plan appropriately.
