

Name:
Enrolment No:
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019
Program: BA. LL.B. (Hons.) ENERGY LAWS

Semester: VII

Subject (Course): Nuclear Energy Law

Max. Marks: 100

Course Code : LLBD421

Duration: 3 Hrs

No. of page/s: 3

Instructions/Note: Attempt all sections. Mention your full name and the enrollment no at the appropriate place in the question paper.

SECTION A
Objective Type Questions/Definitions/fill in the blanks

10x1=10

| Q. No. | <i>Attempt all questions</i> | Marks | CO |
|--------|---|-------|-----|
| 1 | Who is the chairman of Atomic Energy Commission of India? | 1 | CO2 |
| 2 | Discuss the section 23 of Atomic Energy Act 1962 | 1 | CO1 |
| 3 | Name the country holds its main source or large share of energy from nuclear fission; | 1 | CO1 |
| 4 | Where is the headquarter of IAEA situated? | 1 | CO1 |
| 5 | When did India become the signatory to Convention on Supplementary Compensation (CSC)? | 1 | CO2 |
| 6 | The CPPNM of 1979 provides for certain levels of _____ protection to be applied to nuclear material used for peaceful purposes by contracting parties | 1 | CO2 |
| 7 | The normal life span of nuclear power reactor is _____ | 1 | CO1 |
| 8 | Define EURATOM | 1 | CO1 |
| 9 | _____ was the first nuclear civil liability act enacted. | 1 | CO1 |
| 10 | The risk of a nuclear meltdown and an event similar to the-----catastrophe would haunt even the biggest proponents of nuclear energy | 1 | CO4 |

SECTION B(Short Answer Questions)

4x5=20

| Q. No. | <i>Attempt any four</i> | Marks | CO |
|--------|---|-------|-----|
| 11 | Write short note on the global impact UN committee on Radiation Effect. | 5 | CO2 |
| 12 | Define the different types of nuclear Plant options for India. | 5 | CO1 |
| 13 | Explain & Analyse the principal components of a Nuclear Plant. What is the impact of NSG on Indian Nuke Industry | 5 | CO1 |
| 14 | Discuss the Geological Occurrences of Radioactive Minerals in India & the world Discuss the essence of safe disposal of Radioactive Fuels ,1987 | 5 | CO4 |

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|--|---|---|--|
| 15 | Describe the Radioactive Minerals in India & the world. Discuss the essence of Fissile material Cutt off Treaty | 5 | CO4 |
| 16 | Briefly discuss the main characteristics of Nuclear Safety Regulatory Authority (NSRA) Bill | 5 | CO2 |
| SECTION-C (Descriptive/Analytical Questions) | | | 2x10=20 |
| Q.No. | <i>Answer any Two</i> | Marks | CO |
| 17 | It has been said that an institutionalized and effective regulatory mechanism and comprehensive legal framework is inevitable at global and national levels to carry out the nuclear energy operations. Analyse the main characteristics, principles, attributes and sources of an effective nuclear regulator. | 10 | CO3 |
| 18 | Discuss the prime challenges and future prospects of nuclear civil liability regime in India under the ambit of Nuclear Civil Liability Act, 2010. | 10 | CO5 |
| 19 | Analyse the principal roles and responsibilities of IAEA and its relationship with NPT. How does these organizations impact the Nuclear Programmes of India? | 10 | CO2 |
| SECTION-D (Case Studies/ Application Based Questions) | | | 30+20=50 |
| Q.No. | <i>Both the questions are compulsory</i> | Marks | CO |
| 20 | <p>Metal recycling has become an important industrial activity. The worldwide consumption of scrap metal is of the order of five hundred millions of tonnes each year. However, even despite the wide application and implementation of the Code of Conduct on the Safety and Security of Radioactive Sources, radioactive material is still inadvertently incorporated into scrap metal and in consequence is being transferred across borders from an exporting State through a State of transit to an to an importing State.</p> <p>A) <i>In your view, what measures should such States and in particular an importing State take once it discovers radioactive material in scrap metal. Discuss the Prof. Dr. V.S. Parmar vs State Govt. Of Nct of Delhi case.</i></p> <p>B) <i>What mechanisms should be in place to prevent situations such as the one described above? Analyse the key HSE aspects of Radioactive Minerals & Waste Material as per International Nuclear Regulatory Bodies.</i></p> <p>C) <i>What international legal instruments are in place to help prevent situations such the one described above?</i></p> | 10 10 10 | CO4 CO3 CO2 |
| 21 | The issue involved in this petition is regarding the apprehension expressed arising from the post- Tsunami concern. According to the petitioners, on December 26, 2004, Tsunami devastated the east and west coasts of southern | | |

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|---|---|------------|
| <p>India and the Andaman and Nicobar Islands. The public concern is on account of the experts once again reminding publicly on the likely dangers from the geological fault- line running at the middle of Thane Creek which separates Mumbai from New Mumbai cities. A further public concern is from the fact that a huge nuclear establishment is located on the west bank of Thane Creek with known geological fault line and the land mass of thickly populated Mumbai being actually of seven islands joined from reclamation.</p> | | |
| <p>The petitioners mention that on the west bank of Thane Creek is located Bhabha Atomic Research Centre, which is a premier multi- disciplinary Nuclear Research Centre of India having excellent infrastructure for advanced research and development with expertise covering the entire spectrum of Nuclear Science and Engineering and related areas. According to the petitioners, geographically, BARC is located on the eastern suburb of Mumbai on the west bank of Thane Creek which has a geological fault line. According to the petitioners, there are three major fault- lines around Mumbai. They lie under the Thane, Panvel and Dharamtar Creeks. Mumbai falls in Seismic Risk Zone III. It can experience earthquakes measuring up to 6.5 on the Richter Scale. The island city, however, needs more attention due to a two- fold problem: reclaimed land and high rise buildings. Should an earthquake of magnitude 6 or more strike Mumbai, the stability of high rise buildings and even multi- storeyed buildings may emerge as a very serious concern. The petitioners also mentioned that the radioactive nuclear waste leaks at BARC location and discharges into the Thane Creek. It is submitted that the public is in total darkness as to the safety aspects of all nuclear establishments, including BARC.</p> | | |
| <p><i>A. Discuss the origin, composition and functions of BARC</i></p> | 5 | CO1 |
| <p><i>B. Explain the nature of the petition and contentions of the petitioner</i></p> | 5 | CO3 |
| <p><i>C. Analyse the contentions of the responded in the said case</i></p> | 5 | CO4 |
| <p><i>D. Evaluate the reasoning and correctness of the court decision on the said case</i></p> | 5 | CO5 |