Indian Association for the Cultivation of Science

(Deemed to be University under *de novo* Category)

Master's/Integrated Master's-PhD Program/Integrated Bachelor's-Master's Program/PhD Course

End-Semester Examination-Autumn 2024

Subject: Communicative English
Subject Code: AEC 1101
Full Marks: 50 ***Time Allotted:3 h***

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1. **Do as directed: (10)**

   i) The engineer installed five software into the computer. (Correct the sentence)
   ii) As soon as we reached the airport the plane landed.
   Begin with No sooner.....
   iii) I knelt down ..... my knees and searched ..... the ring ..... the bed.
   iv) Terence said, "My wife is away from home at the moment, but she will certainly return tomorrow."
   Begin with Terence said that.....
   v) My sister hates cats. (Rewrite using **aversion** in the sentence)
   vi) He began the interview late. (Write: **Negative sentence**)
   vii) Everyone knows that she loves children. (Write: **Interrogative sentence**)
   viii) Differentiate between the two words **alleviate**and **ameliorate**.
   ix) Give the meaning of the word **Jocund** and make a sentence with it.
   x) Give the meaning of the phrase and make a sentence with it: **At the eleventh hour**.

2. **Read the following passage and answer in your own words as far as possible, the questions that follow. (10)**

Prafulla Chandra Ray was a Bengali academician, a chemist and entrepreneur. He was born on August 2, 1861 in the village Raruli-Kathipara in Khulna District (now in Bangladesh) and died on June 16, 1944. He was the founder of the 'Bengal Chemicals & Pharmaceuticals', India's first pharmaceutical company. His father Harish Chandra Ray was a land proprietor. Up to the age of nine, Prafulla Chandra studied in a school in his village. Then his family migrated to Calcutta and there he studied in Hare School. While studying in Hare School, he suffered from a severe attack of dysentery, which hampered his health throughout his life. Later, he studied at Albert School, Calcutta.

In 1879, P C Ray passed the Entrance Examination of Calcutta University and entered the Metropolitan Institution. He developed his interest in science after reading the autobiography of Benjamin Franklin and his famous 'kite entertainment'. At that time the Metropolitan Institution had no science classes or laboratories and Prafulla Chandra Ray attended lectures in Physics and Chemistry at the Presidency College, Calcutta. Here he was specially attracted by the Chemistry courses of Professor Alexander Pedlar. It was Pedlar who first awakened his interest in natural science. P C Ray was awarded the Gilchrist Prize Scholarship in 1882, after an all-India competitive examination. Without completing the course for his degree, Prafulla Chandra proceeded to the United Kingdom for further studies and entered the University of Edinburgh. In Chemistry, he was the pupil of Alexander Crum Brown. He obtained the B.Sc. degree in 1886 and the D.Sc. degree in 1887. He was also awarded the Hope Prize. While being a student of Edinburgh University, he was elected Vice President of Edinburgh University Chemical Society in 1888.

Prafulla Chandra returned to India in 1889 and joined Presidency College, Calcutta, as Assistant Professor of Chemistry. Prafulla Chandra retired from the Presidency College in 1916 and joined the Calcutta University College of Science (now known as Rajabazar Science College) as its first Palit Professor of Chemistry, a chair named after Tarak Nath Palit. During his tenure Ray published a number of papers in the Journal of the Indian Chemical Society.

In 1936, at the age of 75, he retired from active service and became Professor Emeritus. Long before that, on the completion of his 60th year in 1921, he made a free gift of his entire salary to the Calcutta University from that date onwards, to be spent for the furtherance of chemical research, and the development of the Department of Chemistry in the University College of Science. Prafulla Chandra Roy had written 107 papers in all branches of Chemistry by 1920.

Questions:

a) What did Prafulla Chandra do at Edinburgh? (2.5)
b) Why did Prafulla Chandra do after retirement? (2.5)
c) Give the noun form of 'migrate'. (1)
d) Give the adverb form of 'active'. (1)
e) Give the verb form of 'development'. (1)
f) Change the voice in the sentence: 'He obtained the B.Sc. degree in 1886 and the D.Sc. degree in 1887.' (1)
g) Give the meaning of 'professor emeritus'. (1)

3. Attempt any two of the following: (20)

a) Write an email to the head of your educational institution requesting sick leave for seven days.
b) Write a letter to your teacher requesting for an extension on a project deadline.
c) Jot down notes and write a summary for the given extract:

In recent decades, technology has profoundly transformed various sectors of society, and education is no exception. The integration of technology into the learning environment has reshaped traditional educational practices, offering both opportunities

and challenges. These changes have led to the emergence of new teaching methodologies, tools, and platforms, which are continuously influencing the way students learn and teachers teach.One of the most significant impacts of technology in education is the accessibility of learning resources. The internet, along with digital tools like e-books, online courses, and educational apps, has made it easier for students to access information anytime and anywhere. This increased accessibility has particularly benefited learners in remote areas or those who face limitations in attending traditional schools. The advent of Massive Open Online Courses (MOOCs) has made education more accessible to people around the world, democratizing learning in unprecedented ways.

In addition to greater access, technology has also facilitated personalized learning. Through the use of learning management systems (LMS) and adaptive learning software, teachers can tailor lessons and assignments to meet the individual needs of each student.Technology has also revolutionized communication and collaboration in the classroom. Tools such as Google Classroom, Microsoft Teams, and Zoom enable students and teachers to interact in real-time, regardless of geographical location. In the wake of the COVID-19 pandemic, online learning platforms became a lifeline, allowing education to continue remotely. Even post-pandemic, many schools and universities have incorporated hybrid models of learning that combine in-person and online instruction, enhancing flexibility for both students and educators.Furthermore, the use of multimedia tools has enhanced the overall learning experience. Educational videos, interactive simulations, and virtual reality (VR) have added a new dimension to teaching, particularly in subjects like science, history, and art. Virtual laboratories, for example, allow students to conduct experiments without the risk of physical harm or the need for expensive equipment. Augmented Reality (AR) and VR have enabled immersive learning experiences that bring abstract concepts to life, creating a more engaging and effective learning environment.However, the rise of technology in education has also raised concerns. One of the primary issues is the digital divide—the gap between students who have access to technology and those who do not. In many parts of the world, especially in developing countries, students still lack access to reliable internet connections or devices, making it difficult for them to benefit from online resources. This inequality can exacerbate existing educational disparities and create further divisions in terms of opportunities for success.Another concern is the potential for technology to diminish face-to-face social interaction. While online learning platforms and virtual classrooms offer flexibility and convenience, they can also limit opportunities for students to develop essential social skills, such as communication, teamwork, and emotional intelligence. Additionally, over-reliance on digital devices can lead to issues like screen fatigue and reduced attention spans, which can negatively impact learning outcomes.The shift toward technology-driven education also requires significant changes in teaching methods and teacher training. Not all

educators are adequately trained to use new technology effectively, and without proper guidance, both teachers and students may struggle to adapt. Schools and universities need to invest in professional development and provide ongoing support to ensure that educators are equipped to integrate technology into their teaching strategies successfully.Despite these challenges, the future of technology in education looks promising. Innovations such as artificial intelligence (AI), machine learning, and data analytics are poised to further transform education in the coming years. AI, for instance, can provide real-time feedback to students, helping them improve their performance, while machine learning algorithms can analyze data to identify trends and patterns that could enhance teaching strategies. Moreover, as new technologies like blockchain and 5G networks become more prevalent, they are likely to open up even more possibilities for personalized, efficient, and accessible education worldwide.In conclusion, technology has had a profound and lasting impact on the educational landscape. It has revolutionized how students access information, how teachers deliver content, and how learners engage with one another. While challenges such as the digital divide and concerns about social interaction remain, the benefits of integrating technology into education are undeniable. As technology continues to evolve, it will no doubt continue to shape the future of education, making learning more flexible, accessible, and personalized than ever before. (714 words)

4. Answer **any one** of the following: **(10)**

1) Mary Shelley's *Frankenstein*is often regarded as one of the earliest and most influential science fiction novels. Discuss.

Or

2) Comment on the Creature as a Symbol of the "Other" in Mary Shelley's *Frankenstein*.