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(Pages : 3)

Name.....

Reg. No.....

**FIRST SEMESTER (CUFYUGP) DEGREE EXAMINATION
NOVEMBER 2024**

English

ENG IFA 101 (2)—ENGLISH LANGUAGE SKILLS FOR SCIENCES

(2024 Admission onwards)

Time : One Hour and a Half

Maximum : 50 Marks

Section A

- I. Read the provided paragraphs and answer the following questions. Each question carries 2 marks.
(Ceiling : 16 Marks)

Artificial Intelligence (AI) tools have rapidly transformed industries by automating processes, enhancing decision-making, and offering powerful insights from vast amounts of data. These tools range from basic applications such as chatbots and recommendation engines to more sophisticated systems like deep learning algorithms and natural language processing models. In business, AI tools streamline operations, reduce human error, and help in personalizing customer experiences. For instance, AI-driven analytics platforms can predict market trends, consumer behavior, and even identify areas for cost optimization. Machine learning, a subset of AI, allows these tools to improve over time by learning from data patterns without explicit programming. This capability is especially useful in industries like finance, healthcare, and e-commerce, where vast datasets are continuously generated.

In healthcare, AI tools assist in diagnostic procedures, patient management, and even drug discovery. AI-driven diagnostic systems analyze medical images to detect diseases like cancer at early stages, offering quicker, more accurate results than traditional methods. These tools not only support healthcare professionals but also make healthcare more accessible, especially in remote areas where medical expertise may be limited. In finance, AI tools enhance fraud detection systems, predict stock prices, and optimize investment portfolios. With AI, banks can analyze large sets of transactions in real-time, identifying suspicious activities far faster than manual checks.

Natural language processing (NLP) tools, another major AI innovation, allow machines to understand, interpret, and generate human language. NLP applications include language translation services, sentiment analysis tools, and virtual assistants like Siri or Alexa. These systems can interact with users conversationally, making digital services more user-friendly and accessible. In customer service, AI-driven chatbots help companies manage a high volume

Turn over

of customer inquiries, often providing immediate responses and solutions. AI tools in marketing automate ad targeting and content creation, delivering personalized ads to users based on their browsing history and preferences.

Despite their many advantages, AI tools raise ethical and practical concerns. Issues such as data privacy, algorithmic bias, and the displacement of jobs due to automation are widely discussed. For example, AI algorithms can sometimes unintentionally perpetuate biases present in their training data, leading to unfair outcomes in hiring processes or credit scoring. To address these challenges, businesses and regulators are working on frameworks to ensure AI systems are transparent, ethical, and accountable. AI tools are evolving quickly, and their potential seems limitless, but it is essential to approach their development and deployment with careful consideration of their societal impact.

AI tools are revolutionizing sectors across the board, providing solutions that are faster, smarter, and more efficient. However, the integration of AI into society must be managed responsibly to avoid unintended consequences and ensure that its benefits are distributed equitably.

- 1 What are some basic applications of AI tools ?
- 2 How do AI tools improve decision-making in businesses ?
- 3 Name two industries where machine learning is particularly useful.
- 4 What is the role of AI-driven chatbots in customer service ?
- 5 What is one example of how AI tools help in fraud detection in finance ?
- 6 Name two advantages AI tools bring to the marketing industry.
- 7 What is one ethical concern associated with AI tools ?
- 8 Why is transparency important in the deployment of AI tools ?
- 9 Discuss how AI tools are transforming the healthcare and finance industries, providing examples from the text.
- 10 Analyze the ethical concerns associated with AI tools and suggest potential measures to address these issues.

Section B

II. Answer the following questions in not more than 100 words. All questions can be attended. Each question carries 6 marks. (Ceiling : 24 Marks)

- 11 Describe the role of the fungi network in retaining the biodiverse ecosystem of ancient forests.
- 12 What is the central conflict highlighted in Bhargava's essay "Science and Dogma" ?

- 13 The imagery in “The Peace of Wild Things” is vivid and evocative. Explain how it contributes to the poem’s theme and emotional impact.
- 14 How did C.V. Raman’s teaching strategies, as outlined in the article, reflect his conviction that research is important ?
- 15 Why is outlining your professional goals important in the ASOP ?

Section C

III. Answer any *one* question in 300 words.

- 16 Assess the impact of dogmatic beliefs on contemporary Indian society. How have these beliefs influenced social structures and policies ? Reflect on specific examples from your readings and personal observations.
- 17 Write a story set 100 years from now, exploring the consequences of current environmental and technological trends. How have these changes affected human life and the planet ?

(1 × 10 = 10 marks)