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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SET A**

**SCHOOL OF ENGINEERING  
END TERM EXAMINATION - JAN 2024**

**Semester :** Semester I - 2023  
**Course Code :** ENG1002  
**Course Name :** Technical English  
**Program :** B.Tech.

**Date :** 11-JAN-2024  
**Time :** 9:30AM - 12:30 PM  
**Max Marks :** 100  
**Weightage :** 50%

**Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

**PART A**

**ANSWER ALL THE QUESTIONS**

**5 X 2M = 10M**

1. State any two expressions of apology in emails. (CO1) [Knowledge]
2. Outline any two questions that you may include in product description template. (CO3) [Knowledge]
3. State why a product gets accompanied by a user manual. (CO3) [Knowledge]
4. Describe what technical description means. (CO3) [Knowledge]
5. Define the purpose of an executive summary. (CO4) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**5 X 10M = 50M**

6. Explain the significance of technical communication and outline its distinctive features. (CO1) [Comprehension]
7. Convert the following passage into a tree-diagram. Diabetes is a chronic medical condition that occurs when the body cannot properly regulate blood sugar (glucose) levels. Glucose is a crucial source of energy for cells, and insulin, a hormone produced by the pancreas, helps to regulate its absorption and utilization. In people with diabetes, the body either does not produce enough insulin or cannot effectively use the insulin it produces, leading to elevated blood sugar levels. There are several types of diabetes, with the main ones being:

**Type 1 Diabetes:**

It is thought to be an autoimmune reaction where the immune system mistakenly attacks and destroys insulin-producing beta cells in the pancreas. It is typically diagnosed in children and young adults. Treatment for Type 1 Diabetes requires insulin therapy for life.

**Type 2 Diabetes:**

It results from insulin resistance, where the body's cells do not respond effectively to insulin and insufficient insulin production. Type 2 Diabetes usually develops in adults but can occur at any age. However, it can be managed through lifestyle changes (diet and exercise), oral medications, and sometimes insulin therapy.

**Gestational Diabetes:**

It develops during pregnancy when the body cannot produce enough insulin to meet increased requirements. It can often be managed through diet and exercise; in some cases, medication may be necessary.

While there is no cure for diabetes, management and treatment focus on controlling blood sugar levels to prevent complications. Treatment options include lifestyle modifications, adopting a healthy, balanced diet with controlled carbohydrate intake, and regular physical activity which helps improve insulin sensitivity. Medications are, however, essential for certain types of diabetes. While in Type 1 Diabetes, Insulin therapy is essential, Type 2 Diabetes is treated with oral medications, injectable medications, and, in some cases, insulin.

Regular monitoring of blood sugar levels and self-care are essential to managing this disease. Individuals with diabetes need to work closely with healthcare professionals to develop a personalized treatment plan. Research is ongoing, and while there is no cure, advancements in treatment and management strategies continue to improve the quality of life for those living with diabetes.

(CO2) [Comprehension]

8. Explain the essential elements of crafting a product description with the aim of boosting sales.

(CO3) [Comprehension]

9. Explain the components and organization of Technical Descriptions.

(CO3) [Comprehension]

10. Compare Abstracts and Summaries by highlighting their differences.

(CO4) [Comprehension]

**PART C****ANSWER ALL THE QUESTIONS****2 X 20M = 40M****11. Artificial Intelligence in a Transformed World**

Write a technical report analyzing the potential applications, ethical considerations, and challenges associated with widespread adoption of artificial intelligence (AI) in various sectors. Your report should include the following elements, apart from 'Title Page - Abstract - Table of Contents':

1. Introduction: Define AI and briefly discuss its current state of development.
2. Applications of AI: Explore the potential uses of AI in healthcare, education, transportation, and other relevant sectors, providing specific examples.
3. Ethical Considerations: Discuss the potential ethical concerns related to AI, such as bias, privacy, job displacement, and accountability.
4. Challenges and Mitigation Strategies: Analyze the technical, social, and economic challenges associated with AI adoption, and propose strategies to address them.
5. Recommendations: Provide recommendations for responsible development and implementation of AI to maximize its benefits and minimize potential risks.
6. Conclusion: Summarize the key findings and emphasize the importance of ethical and responsible AI development.

(CO4) [Application]

12. Draft a user manual for an advanced Fitness Tracker. Include key details on activity monitoring, sleep tracking, heart rate analysis, and syncing capabilities. Use these keywords as a starting point.

(CO3) [Application]