GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Business

Bachelor of Business Administration
Mid Term Examination - Mar 2024

Duration : 90 Minutes
Max Marks : 50

Sem VI - D1UG602T - Automotive Emission Control

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Analyze, what role do governmental regulations play in managing and controlling air pollution?	K4	(4)
2)	Explain the effects of vehicular pollution on human health, particularly in densely populated urban environments.	K5	(5)
3)	Explain the properties of catalysts chosen for vehicle emission control.	K5	(5)
4)	Classify the types of emission in major metropolitan cities.	K3	(6)
5)	Imagine you are an environmental engineer tasked with addressing air quality issues in a bustling urban area. The city is experiencing elevated levels of pollutants attributed to vehicular emissions. Demonstrate a comprehensive flowchart that illustrates the stages of pollutant formation in a typical internal combustion engine. Consider the various components and processes involved, such as fuel combustion, exhaust gas recirculation, and catalytic conversion. Highlight potential points of intervention to minimize pollutant emissions and improve air quality within the city.	K4	(8)
6)	In the context of environmental sustainability in the automotive industry, compile a caselet synthesizing the latest research findings on diesel and petrol emissions. Examine the environmental concerns associated with these emissions and provide a clear overview of the current research finding. Additionally, propose potential advancements or innovations in combustion technologies that could serve as strategic solutions to address the identified environmental challenges.	K5	(10)

7) Read the case and answer the following questions; “Navigating Crisis in the Amazon: Global Warming's Toll on Biodiversity”. The Amazon Rainforest, a biodiversity-rich ecosystem critical to global climate regulation, faces an unprecedented crisis due to the impacts of global warming. Rising temperatures, altered precipitation patterns, and increased frequency of extreme weather events are disrupting the delicate balance of this vast and complex ecosystem. The once lush and thriving habitat is now grappling with biodiversity loss, habitat degradation, and increased vulnerability to diseases. Iconic species such as jaguars, macaws, and poison dart frogs are experiencing population declines, while endemic plant species face threats of extinction. The intricate web of life that defines the Amazon Rainforest is unraveling, demanding urgent attention and strategic conservation efforts.

K6 (12)

Questions:

(a) How can policymakers and local communities collaborate to create sustainable land use practices that mitigate the impact of global warming on the Amazon's biodiversity? (7 marks)

(b) In what ways can industries operating in the region adopt practices that balance economic development with conservation imperatives? (5 marks)