Name:

**Enrolment No:** 



## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

**End Semester Examination, May 2022** 

**Course: Climate change and Sustainability** 

**Program: BBA (Green Energy and Sustainability)** 

**Course Code: OGET 1004** 

Semester: II Time: 03 hrs.

Max. Marks: 100

**Instructions: Attempt all the questions** 

SECTION A
10Qx2M=20Marks

Which of the following is NOT a greenhouse gas?  A. CO <sub>2</sub> B. CH <sub>4</sub> C. H <sub>2</sub> 0 D. O <sub>2</sub> Q 2 If a climate policy reduces both greenhouse gases and aerosols in our atmosphere, what happens to the temperature of the climate system?  A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  A. Practices that avoid all use of natural resources, exclusively using	CO
B. CH <sub>4</sub> C. H <sub>2</sub> 0 D. O <sub>2</sub> Q 2 If a climate policy reduces both greenhouse gases and aerosols in our atmosphere, what happens to the temperature of the climate system? A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling. B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms. C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming. D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?  CO  CO	
C. H <sub>2</sub> 0 D. O <sub>2</sub> Q 2 If a climate policy reduces both greenhouse gases and aerosols in our atmosphere, what happens to the temperature of the climate system? A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling. B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms. C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming. D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?  CO  CO  CO  CO  CO  A reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to warm the climate, while a reduction in greenhouse gases and aerosols both tend to warm the climate, while a reduction in greenhouse gases and aerosols both tend to warm the climate, while a reduction in greenhouse gases and aerosols both tend to warm the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to warm the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aerosols both tend to cool the climate, while a reduction in greenhouse gases and aer	
D. O2  Q 2 If a climate policy reduces both greenhouse gases and aerosols in our atmosphere, what happens to the temperature of the climate system?  A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	1
Q 2 If a climate policy reduces both greenhouse gases and aerosols in our atmosphere, what happens to the temperature of the climate system?  A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
atmosphere, what happens to the temperature of the climate system?  A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
A. A reduction in greenhouse gases and aerosols both tend to cool the climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	1
climate, so the combination will lead to large cooling.  B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
B. A reduction in greenhouse gases tends to cool the climate, while a reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
reduction in aerosols tends to warm it, so the final effect will be the difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
difference of these offsetting terms.  C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
C. A reduction in greenhouse gases and aerosols both tend to warm the climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO  CO	
climate, so the combination will lead to large warming.  D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require:  A. reducing emissions rapidly, beginning today.  B. solar radiation management.  C. negative emissions.  D. Both A and C  E. Both A and B  Q 4 How is sustainability defined?  CO	
D. A reduction in greenhouse gases tends to warm the climate, while a reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  2 Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  2 How is sustainability defined?  CO  CO	
reduction in aerosols tends to cool it, so the final effect will be the difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?  CO  CO	
difference of these offsetting terms.  Q 3 Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?  CO  CO	
CO  Keeping warming below the 1.5°C threshold will require: A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?  CO  CO	
A. reducing emissions rapidly, beginning today. B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?	
B. solar radiation management. C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?	1
C. negative emissions. D. Both A and C E. Both A and B  Q 4 How is sustainability defined?	
C. negative emissions.  D. Both A and C  E. Both A and B  4 How is sustainability defined?	
E. Both A and B  Q 4 How is sustainability defined?  CO	
Q 4 How is sustainability defined?	
A. Practices that avoid all use of natural resources, exclusively using	1
recycling	
B. Meeting current needs without overburdening the natural environment 2	
or future generations	
C. Measures to reduce greenhouse gas emissions	
D. Compliance with requirements by SASB	
Q 5 What are the Sustainable Development Goals (SDGs)? CO	1

	A. A set of goals developed by the Business Roundtable for businesses to		
	implement sustainable practices		
	B. A set of goals developed by the World Bank to govern financing		
	directed to emerging markets		
	C. A set of goals developed by the Principles for Responsible Investment		
	(PRI) for investors to allocate assets in a sustainable manner		
	D. A set of goals developed and agreed to by the UN and its member		
	countries to shape global policy and private-sector action		
Q 6	What are the two main types of climate risk?		CO 1
	A. Environmental and physical risk		
	B. Stranded asset risk and litigation risk	2	
	C. Physical risk and transition risk		
	D. Market risk and pricing risk		
Q 7	What is a stranded asset?		CO 1
	A. An asset that has been surrendered by its owners		
	B. An asset that has been prematurely written down, devalued, or	2	
	converted to liabilities as a result of climate risk	_	
	C. An asset that has been neglected and poorly maintained		
	D. An asset that is uneconomical to operate		
Q 8	What does the TCFD stand for?		CO 1
	A. Taskforce on Climate-Related Financial Decisions	2	
	B. Taskforce on Climate, Finance, and Development	_	
	C. Taskforce on Climate-Related Financial Disclosures		
Q 9	Which of the following is a common climate-related macroprudential		CO 1
	policy?		
	A. Climate stress-test	2	
	B. Stranded asset quality review (SAQR)		
	C. Requirement linking executive pay with climate goals		
0.10	D. Mandatory firm-level climate metrics and targets		00.1
Q 10	What is greenwashing?		CO 1
	A. An activity where environmental activists pour green paint on symbols		
	of pollution, such as power plant smokestacks		
	B. Illicit financial flows where money laundering is conducted under the		
	pretense of investing in clean, sustainable technologies	2	
	C. Misrepresenting the degree to which a particular asset or portfolio is		
	exposed to climate-related physical and transition risks		
	D. Marketing that portrays products or activities as producing positive		
	environmental outcomes when this is not actually the case		
	SECTION B		
	4Qx5M= 20 Marks		
	Answer the following questions in brief		
Q11	Differentiate between human-induced and natural climate changes.	5	CO 1
Q12	Understand contributors to sea level rise as well as the ocean's unique role	5	CO 1
	balancing the climate cycle.	<u> </u>	

Q13	Describe the direct health impacts of floods on the people	5	CO 2		
Q14	Explain the types of transition risk.	5	CO 1		
	SECTION-C 3Qx10M=30 Marks		-		
	Answer the following questions in detail				
Q 15	Compare sector-specific emissions reduction policies.	10	CO 3		
Q 16	Discuss how climate change has acute and chronic impacts, directly and indirectly, on individual well-being	10	CO 2		
Q 17	Evaluate the relationship and intersection among sustainability, ESG, and climate change.	10	CO 3		
	SECTION-D				
2Qx15M= 30 Marks					
	Answer the following questions in detail				
Q 18	Illustrate and Analyze the mapping links between the climate change and health	15	CO 2		
Q 19	Illustrate and evaluate the SASB dimensions and key issues.	15	CO 3		