

GOVERNMENT GENERAL DEGREE COLLEGE, KALNA-I

MODEL QUESTIONS (MCQ)

SEMESTER-III

PAPER NAME: CLIMATE CHANGE & CLIMATE ACTION

PAPER CODE: ENVSC 3031 [ENVSC Multidisciplinary: COURSE NO. 3]

TOTAL CREDIT: 3

TIME: 2 Hours

MARKS: 40

UNIT-1: The Science of climate change:

1. What is the primary cause of recent global climate change?

- a) Natural variations in Earth's orbit
- b) Human activities, such as burning fossil fuels
- c) Changes in solar radiation
- d) Increased volcanic activity

Answer: b) Human activities, such as burning fossil fuels

2. Which greenhouse gas is the most abundant in Earth's atmosphere?

- a) Carbon dioxide (CO₂)
- b) Methane (CH₄)
- c) Nitrous oxide (N₂O)
- d) Water vapor

Answer: d) Water vapor

3. What is the primary human activity contributing to increased CO₂ levels?

- a) Deforestation
- b) Industrial pollution
- c) Burning fossil fuels
- d) Agriculture

Answer: c) Burning fossil fuels

4. Which of the following is NOT a greenhouse gas?

- a) Nitrogen (N₂)
- b) Carbon dioxide (CO₂)
- c) Methane (CH₄)
- d) Nitrous oxide (N₂O)

Answer: a) Nitrogen (N₂)

5. What is the effect of melting polar ice caps on sea levels?

- a) Sea levels decrease
- b) Sea levels remain the same
- c) Sea levels increase

d) No significant impact

Answer: c) Sea levels increase

6. Which international agreement aims to combat climate change by reducing greenhouse gas emissions?

- a) Kyoto Protocol
- b) Paris Agreement
- c) Montreal Protocol
- d) Rio Declaration

Answer: b) Paris Agreement

7. Which sector contributes the most to global greenhouse gas emissions?

- a) Agriculture
- b) Transportation
- c) Industry
- d) Energy production

Answer: d) Energy production

8. What is the term for the long-term average of weather patterns in a region?

- a) Weather
- b) Climate
- c) Atmosphere
- d) Meteorology

Answer: b) Climate

9. What role do forests play in climate change mitigation?

- a) They release CO₂ into the atmosphere
- b) They absorb and store carbon dioxide
- c) They reflect sunlight back into space
- d) They increase methane emissions

Answer: b) They absorb and store carbon dioxide

10. What is the main reason ocean temperatures are rising?

- a) Increased volcanic activity
- b) Increased absorption of heat from the atmosphere
- c) Changes in Earth's orbit
- d) Decreasing cloud cover

Answer: b) Increased absorption of heat from the atmosphere

UNIT-2: Climate change and its effects:

1. Which of the following is a direct consequence of climate change?

- a) Increased volcanic eruptions
- b) Rising global temperatures
- c) Decreasing ocean salinity
- d) Increased earthquakes

Answer: b) Rising global temperatures

2. How does climate change affect weather patterns?

- a) It makes weather more predictable
- b) It increases the frequency of extreme weather events
- c) It decreases global wind speeds
- d) It eliminates seasonal changes

Answer: b) It increases the frequency of extreme weather events

3. Which of the following is a major impact of rising sea levels?

- a) Expansion of deserts
- b) Increase in freshwater availability
- c) Coastal flooding and land loss
- d) Stronger earthquakes

Answer: c) Coastal flooding and land loss

4. How does climate change impact biodiversity?

- a) It has no impact on biodiversity
- b) It helps species adapt more quickly
- c) It leads to habitat loss and species extinction
- d) It reduces deforestation

Answer: c) It leads to habitat loss and species extinction

5. What is ocean acidification, and how is it related to climate change?

- a) Decrease in ocean oxygen levels due to deforestation
- b) Increase in ocean temperature due to sunspots
- c) Increase in ocean acidity due to CO₂ absorption
- d) Reduction in ocean waves due to ice melting

Answer: c) Increase in ocean acidity due to CO₂ absorption

6. What happens to glaciers and polar ice caps due to climate change?

- a) They grow larger
- b) They remain unchanged
- c) They melt at an accelerated rate
- d) They move to warmer regions

Answer: c) They melt at an accelerated rate

7. How does climate change impact human health?

- a) It reduces the spread of infectious diseases
- b) It decreases air pollution levels
- c) It increases the risk of heat-related illnesses and diseases
- d) It eliminates the need for vaccines

Answer: c) It increases the risk of heat-related illnesses and diseases

8. Which of the following is an effect of climate change on agriculture?

- a) Increased crop yield in all regions
- b) More stable weather patterns
- c) Increased droughts and unpredictable growing seasons
- d) Elimination of pests and crop diseases

Answer: c) Increased droughts and unpredictable growing seasons

9. Why are hurricanes and typhoons becoming more intense due to climate change?

- a) Because of stronger ocean currents

b) Because warmer ocean temperatures provide more energy

c) Because of decreased solar activity

d) Because of changes in Earth's gravitational pull

Answer: b) Because warmer ocean temperatures provide more energy

10. What is the impact of permafrost melting due to climate change?

- a) Increased release of methane, a powerful greenhouse gas
- b) Reduced carbon dioxide levels in the atmosphere
- c) Creation of more farmland in the Arctic
- d) Increase in fresh water for human use

Answer: a) Increased release of methane, a powerful greenhouse gas

UNIT-3: Climate action:

1. What is the main goal of climate action?

- a) To completely stop the use of energy
- b) To reduce greenhouse gas emissions and combat climate change

- c) To increase fossil fuel consumption
- d) To promote only industrial growth

Answer: b) To reduce greenhouse gas emissions and combat climate change

2. Which of the following is an effective way to reduce carbon emissions?

- a) Increasing deforestation
- b) Using renewable energy sources like solar and wind
- c) Relying only on fossil fuels
- d) Burning more coal for electricity

Answer: b) Using renewable energy sources like solar and wind

3. What is the Paris Agreement?

- a) A trade deal between Europe and Asia
- b) A global agreement to reduce climate change impacts
- c) A law that bans cars in cities
- d) A treaty to promote space exploration

Answer: b) A global agreement to reduce climate change impacts

4. How can individuals contribute to climate action?

- a) Reducing energy consumption and waste
- b) Using more plastic products
- c) Burning more fossil fuels
- d) Cutting down more trees

Answer: a) Reducing energy consumption and waste

5. Which of the following transportation choices helps fight climate change?

- a) Driving petrol and diesel cars every day
- b) Using public transport, cycling, or walking
- c) Taking more airplane flights
- d) Using bigger and more powerful vehicles

Answer: b) Using public transport, cycling, or walking

6. What is a carbon footprint?

- a) The amount of physical space a person takes up
- b) The total greenhouse gases a person, organization, or country emits
- c) The size of a person's foot
- d) The energy produced by volcanoes

Answer: b) The total greenhouse gases a person, organization, or country emits

7. Why is tree planting considered an effective climate action strategy?

- a) Trees absorb carbon dioxide from the atmosphere
- b) Trees produce fossil fuels
- c) Trees increase methane emissions
- d) Trees decrease oxygen levels

Answer: a) Trees absorb carbon dioxide from the atmosphere

8. What role do governments play in climate action?

- a) Banning all industries
- b) Making policies and regulations to reduce emissions
- c) Increasing reliance on coal and oil
- d) Encouraging deforestation

Answer: b) Making policies and regulations to reduce emissions

9. What is sustainable development in the context of climate action?

- a) Economic growth without considering the environment

b) Development that meets present needs without harming future generations

c) Using only non-renewable energy sources

d) Ignoring climate change impacts

Answer: b) Development that meets present needs without harming future generations

10. What is the purpose of a carbon tax?

- a) To penalize people for breathing out CO₂
- b) To make companies pay for the carbon emissions they produce
- c) To ban all industries
- d) To reduce oxygen levels in the atmosphere

Answer: b) To make companies pay for the carbon emissions they produce

UNIT-4: Policy and mitigation:

1. What is the main goal of climate mitigation policies?

- a) To adapt to the effects of climate change
- b) To reduce or prevent greenhouse gas emissions

- c) To increase fossil fuel consumption
- d) To ignore climate change impacts

Answer: b) To reduce or prevent greenhouse gas emissions

2. Which international agreement focuses on reducing global greenhouse gas emissions?

- a) The Paris Agreement
- b) The Kyoto Protocol
- c) The Montreal Protocol
- d) Both a and b

Answer: d) Both a and b

3. What does a carbon tax aim to do?

- a) Encourage industries to reduce carbon emissions by making them pay for pollution
- b) Increase carbon dioxide levels in the atmosphere
- c) Make electricity free for everyone
- d) Promote deforestation

Answer: a) Encourage industries to reduce carbon emissions by making them pay for pollution

4. Which of the following is an example of climate change mitigation?

- a) Building seawalls to prevent flooding
- b) Using renewable energy sources like solar and wind
- c) Relocating communities due to rising sea levels
- d) Increasing air conditioning use in hot regions

Answer: b) Using renewable energy sources like solar and wind

5. What is cap-and-trade in climate policy?

- a) A policy where companies are given limits on emissions but can buy or sell allowances
- b) A system where companies are allowed to emit unlimited carbon
- c) A tax imposed on consumers for using electricity
- d) A policy to promote deforestation

Answer: a) A policy where companies are given limits on emissions but can buy or sell allowances

6. How can governments encourage businesses to reduce their carbon footprint?

- a) Providing subsidies for renewable energy projects

- b) Taxing companies that emit excessive greenhouse gases
- c) Implementing strict environmental regulations
- d) All of the above

Answer: d) All of the above

7. What is carbon sequestration?

- a) The release of carbon dioxide into the atmosphere
- b) The process of capturing and storing carbon dioxide to reduce emissions
- c) The increase of greenhouse gases from industrial activities
- d) The burning of fossil fuels for energy

Answer: b) The process of capturing and storing carbon dioxide to reduce emissions

8. Which sector is a major focus of climate mitigation policies?

- a) Energy production
- b) Transportation
- c) Agriculture
- d) All of the above

Answer: d) All of the above

9. What does the term net zero emissions mean?

- a) Completely eliminating all greenhouse gas emissions
- b) Balancing emitted greenhouse gases with carbon removal efforts
- c) Increasing emissions while planting more trees
- d) Reducing only methane emissions but not carbon dioxide

Answer: b) Balancing emitted greenhouse gases with carbon removal efforts

10. What is a major challenge in implementing climate change policies?

- a) Economic costs and resistance from industries
- b) Lack of scientific evidence on climate change
- c) No international agreements on the issue
- d) People not wanting clean air

Answer: a) Economic costs and resistance from industries
