



TEST

Practice Test (9C: Environmental chemistry)



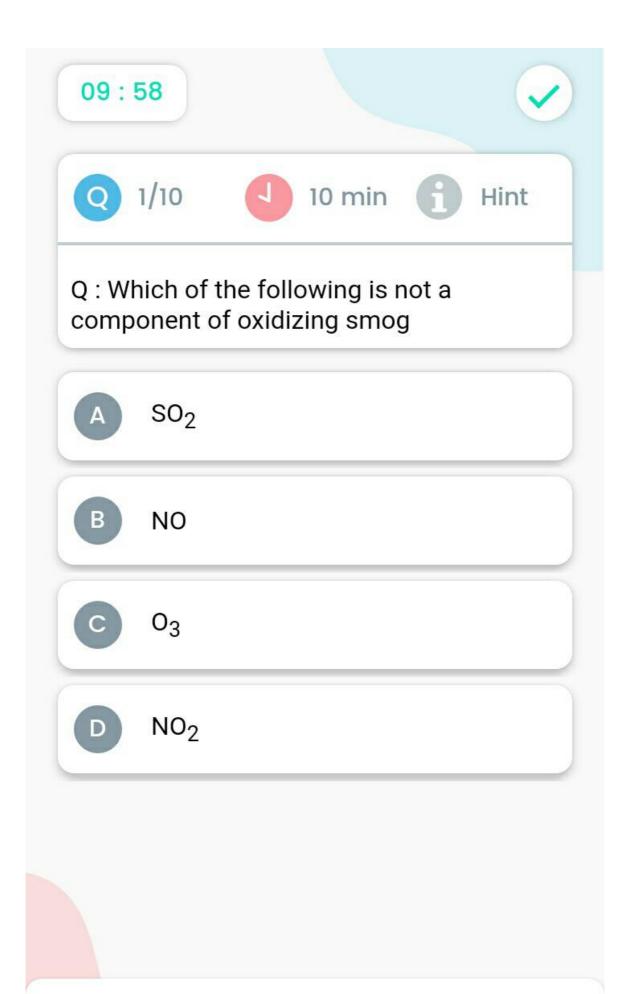


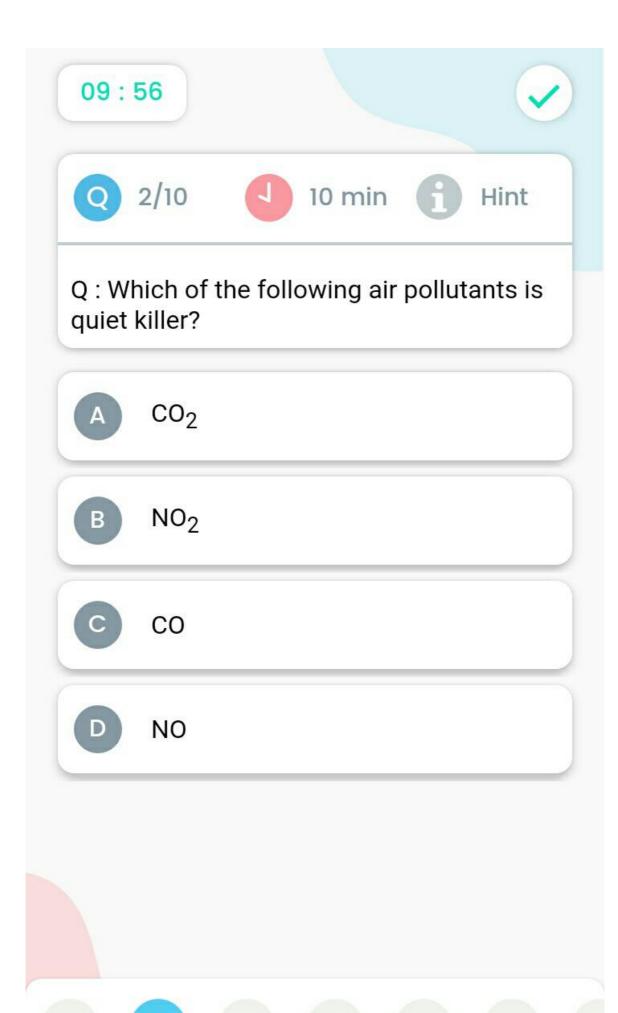
10 Questions 10 min

Topics

ENVIRONMENTAL CHEMISTRY, Air Pollution, Acid Rain, Smog and Ozone

Start Test















Hint

Q: Which one is not the function of aeration

- Removal of volatile organic compounds
- B Removal of foul smelling gases
- Removal of Ca⁺² and Mg⁺² ions
- Oxidation of Fe⁺² to Fe⁺³

2

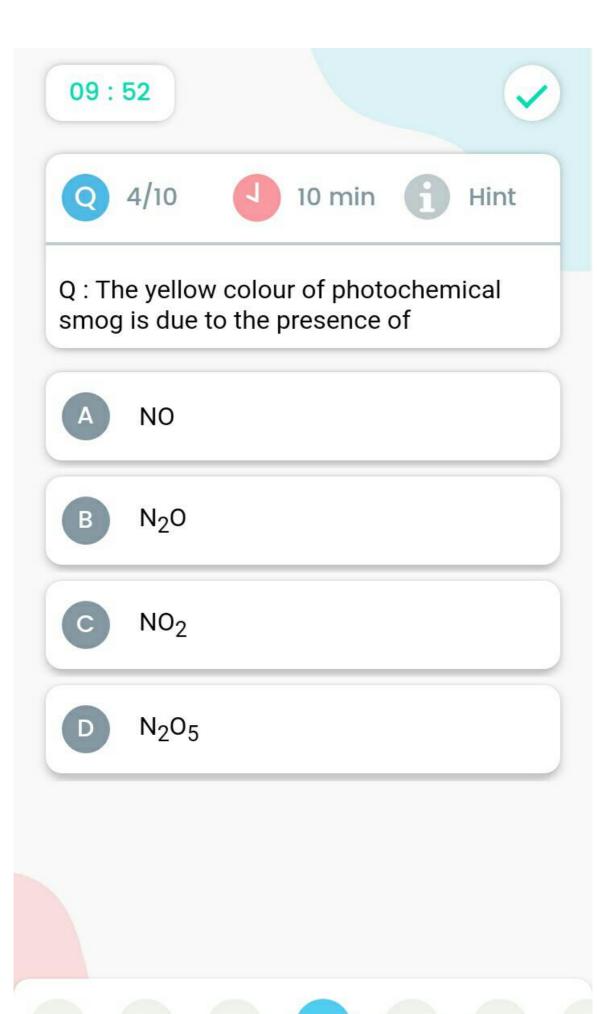
3

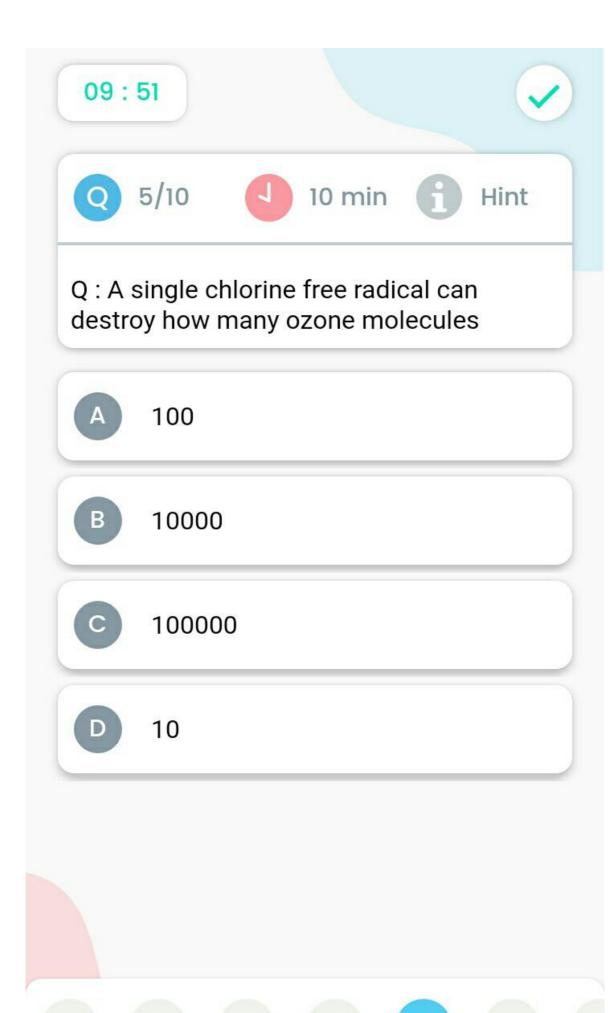
4

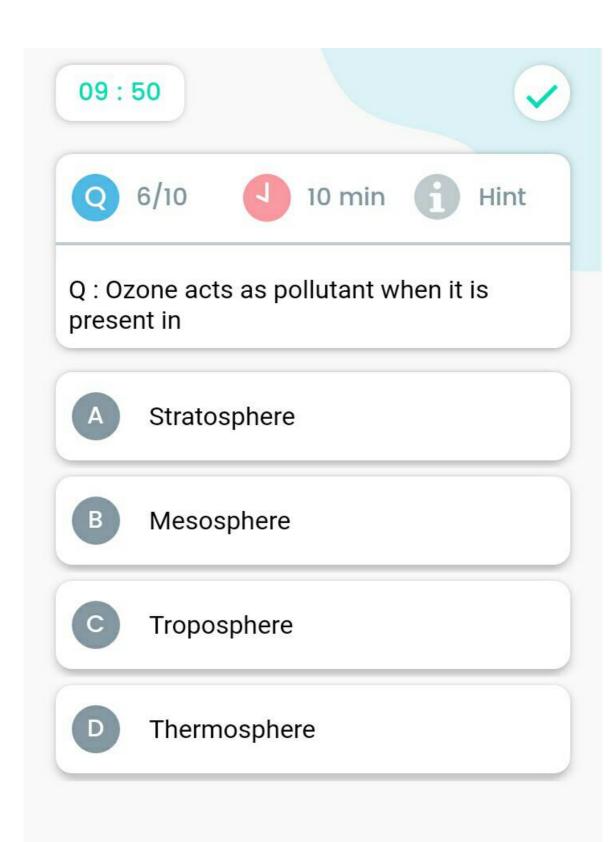
5

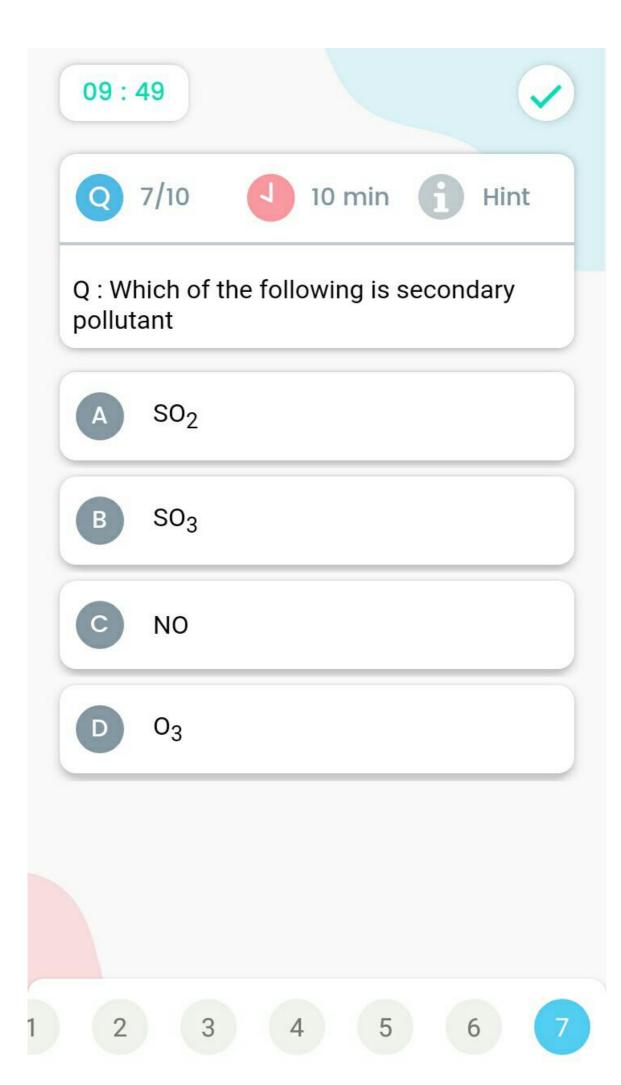
6

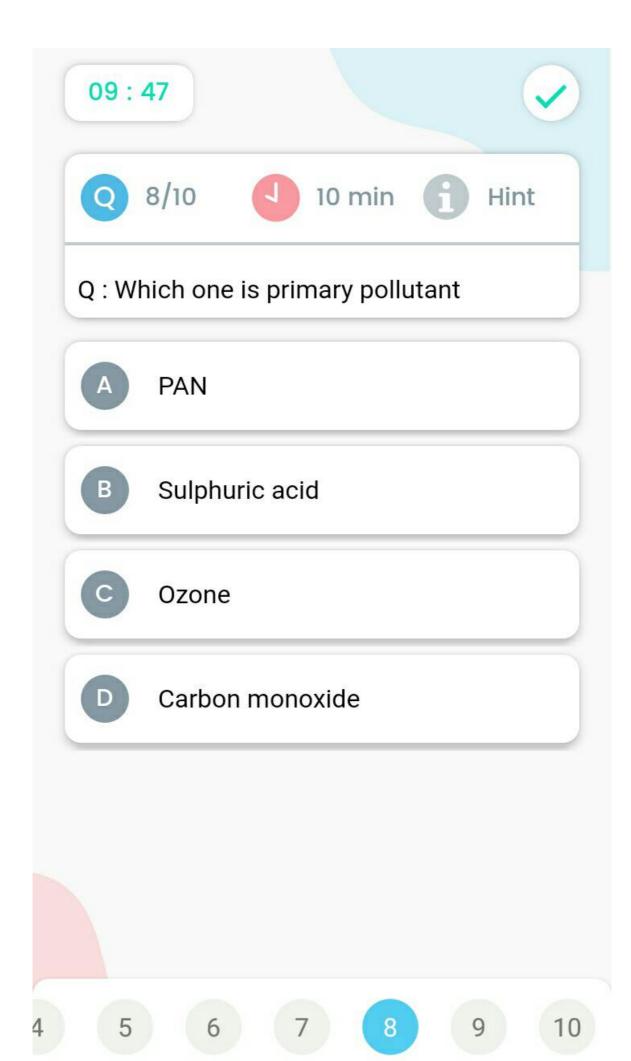
1

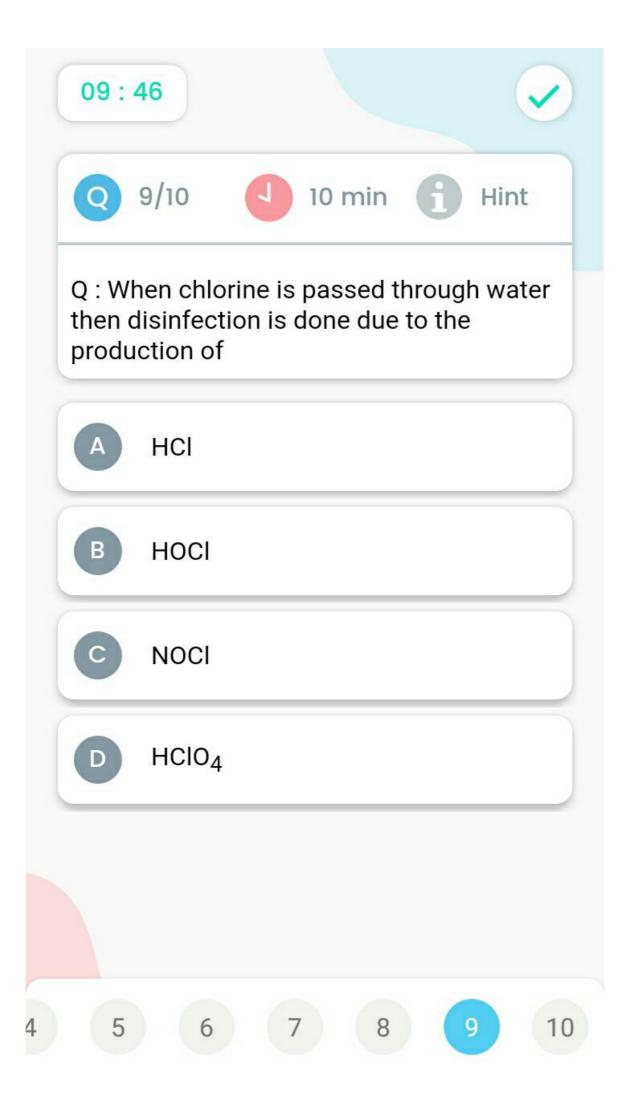






















Q: The temperature in stratosphere increases with increases of altitude from

- -56 to -2⁰C
- -46 to -12⁰C
- -49 to -25⁰C
- -56 to -8⁰C





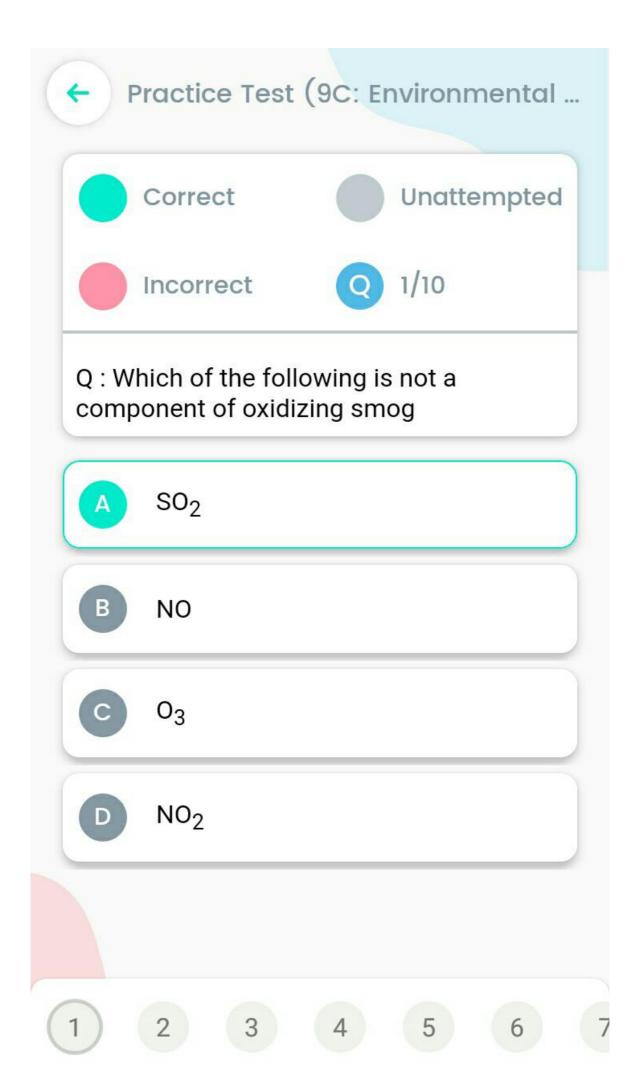


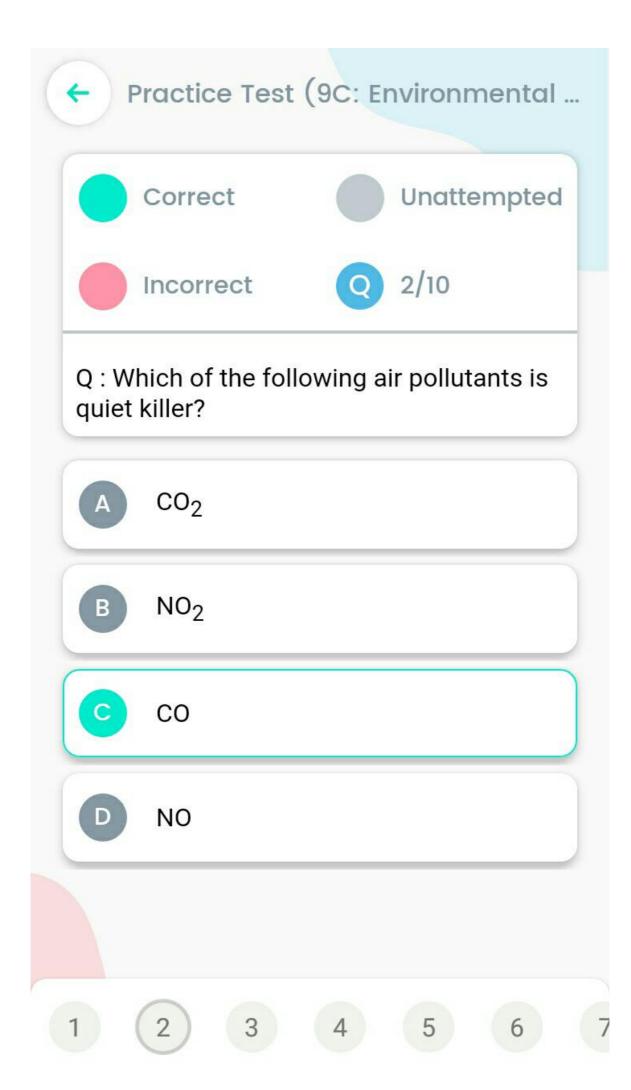


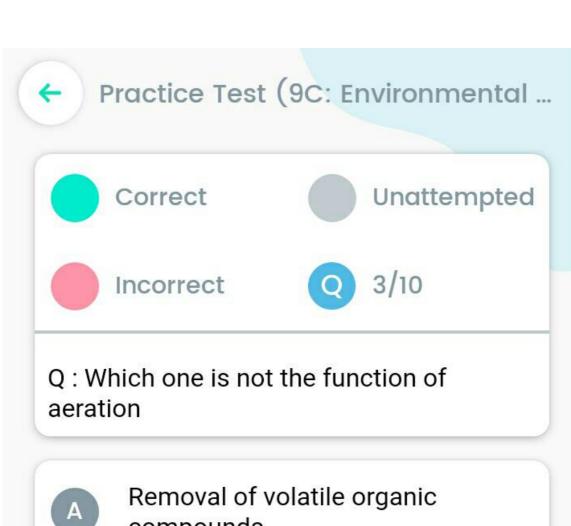


Q: The temperature in stratosphere increases with increases of altitude from

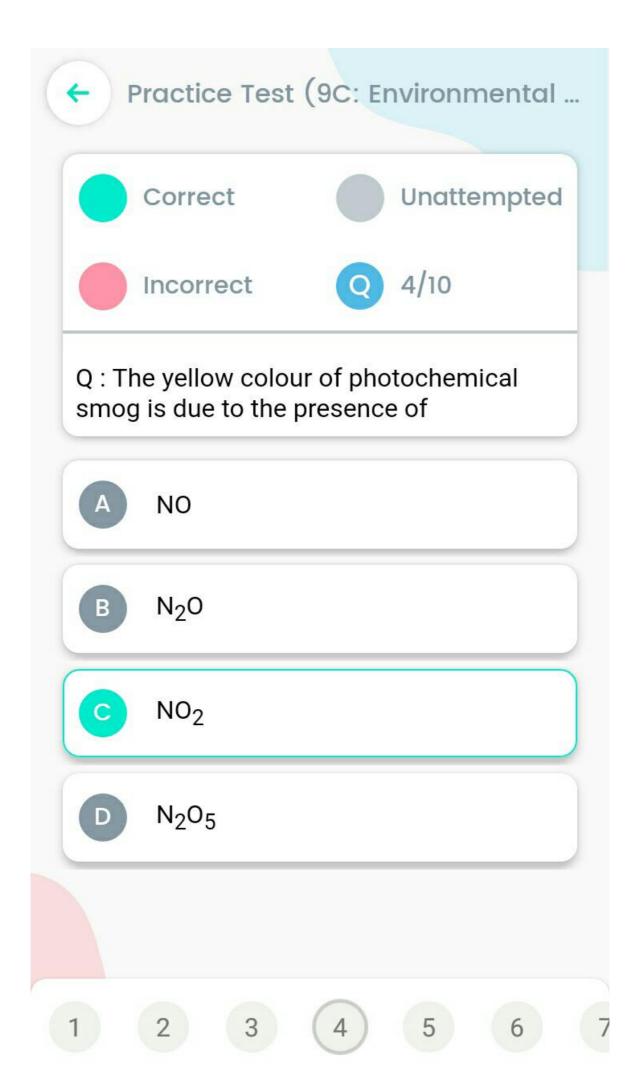
- -56 to -2⁰C
- -46 to -12⁰C
- -49 to -25⁰C
- -56 to -8⁰C

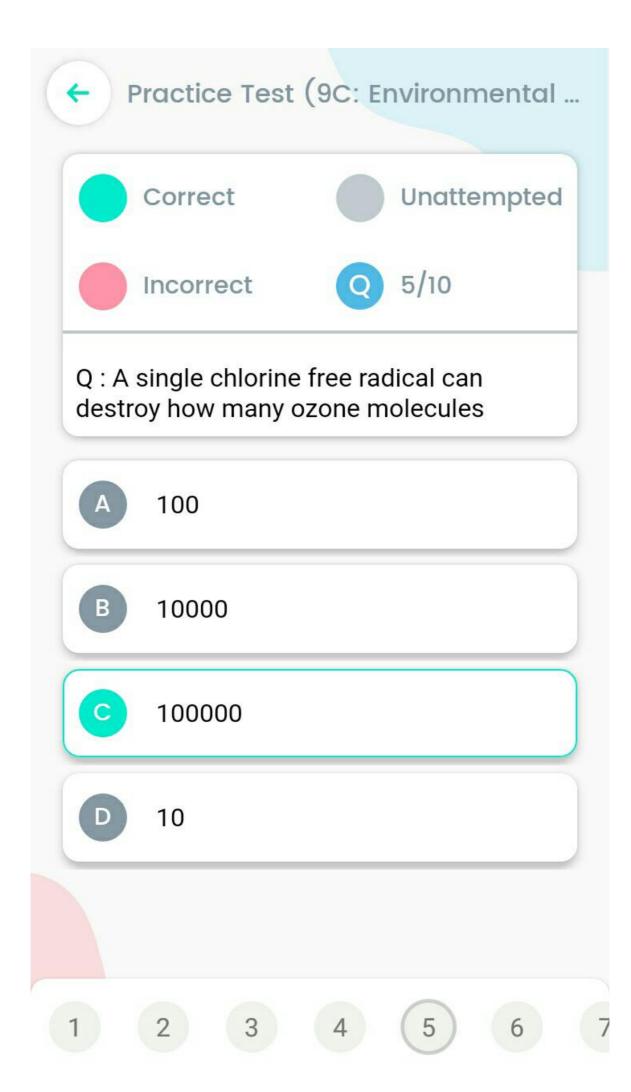


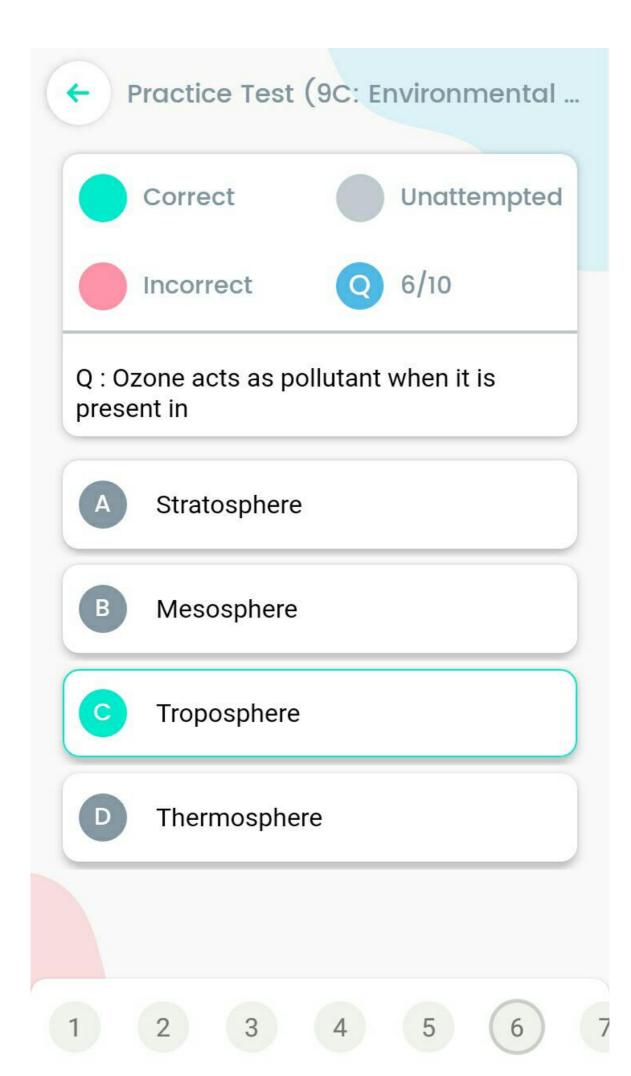


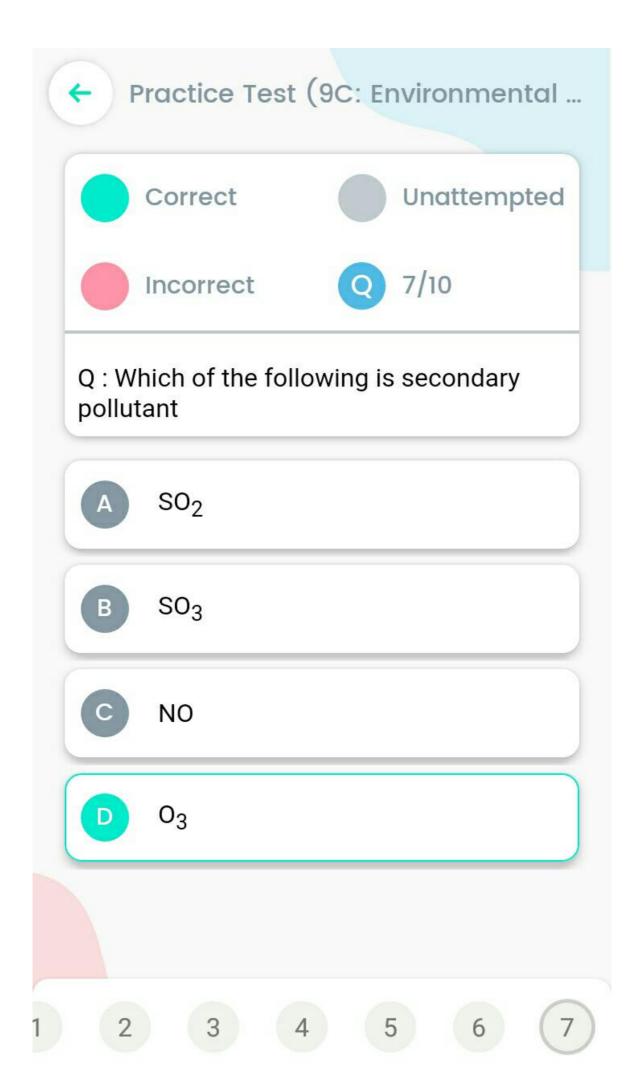


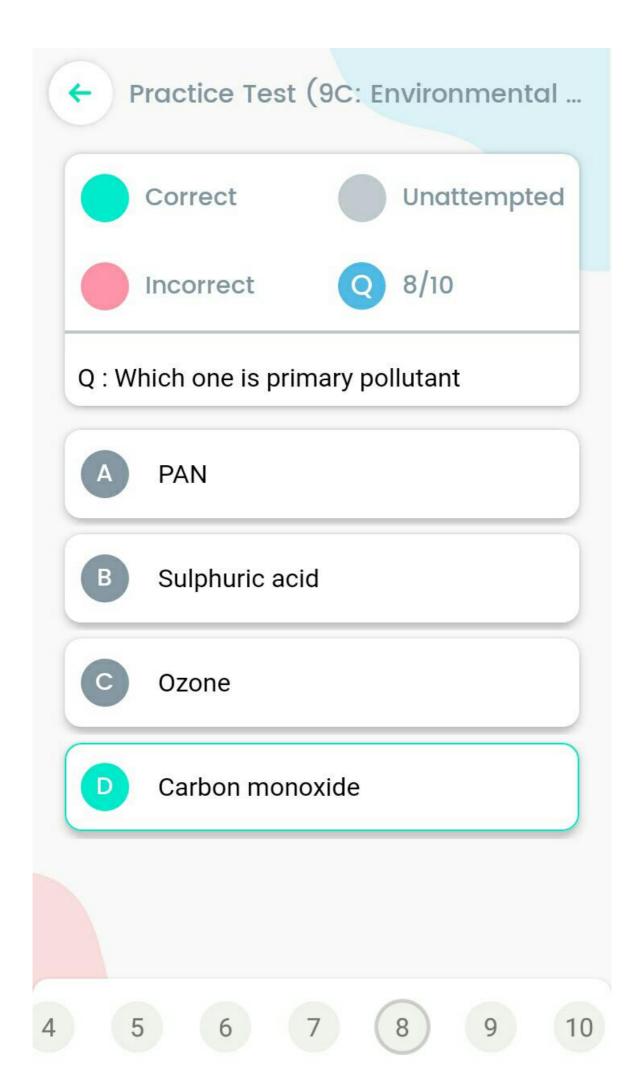
- compounds
- Removal of foul smelling gases
- Removal of Ca⁺² and Mg⁺² ions
- Oxidation of Fe⁺² to Fe⁺³

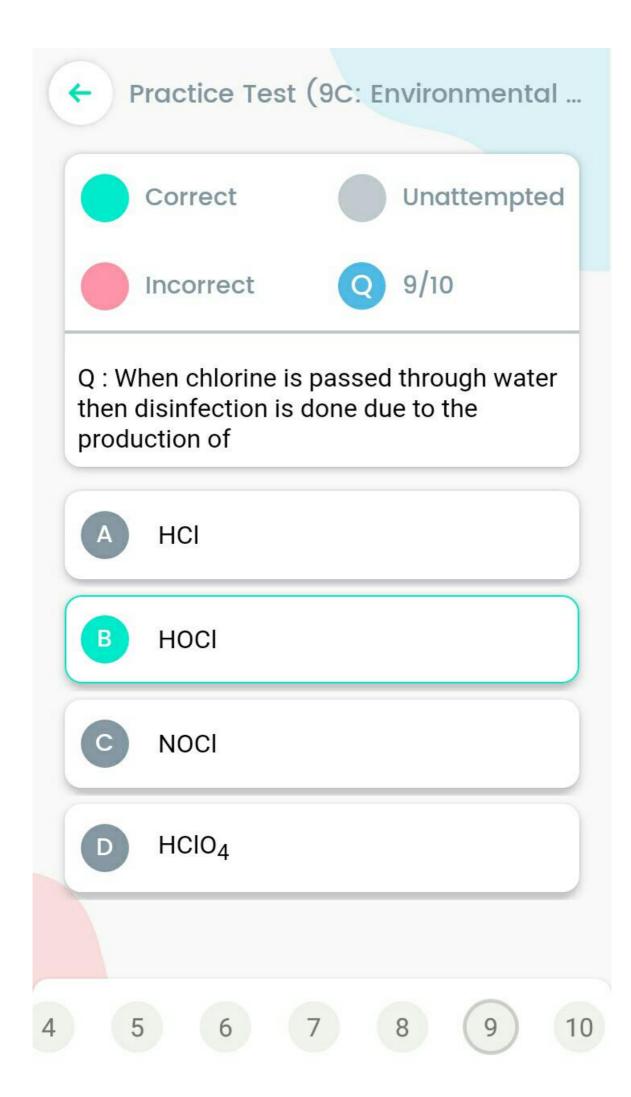


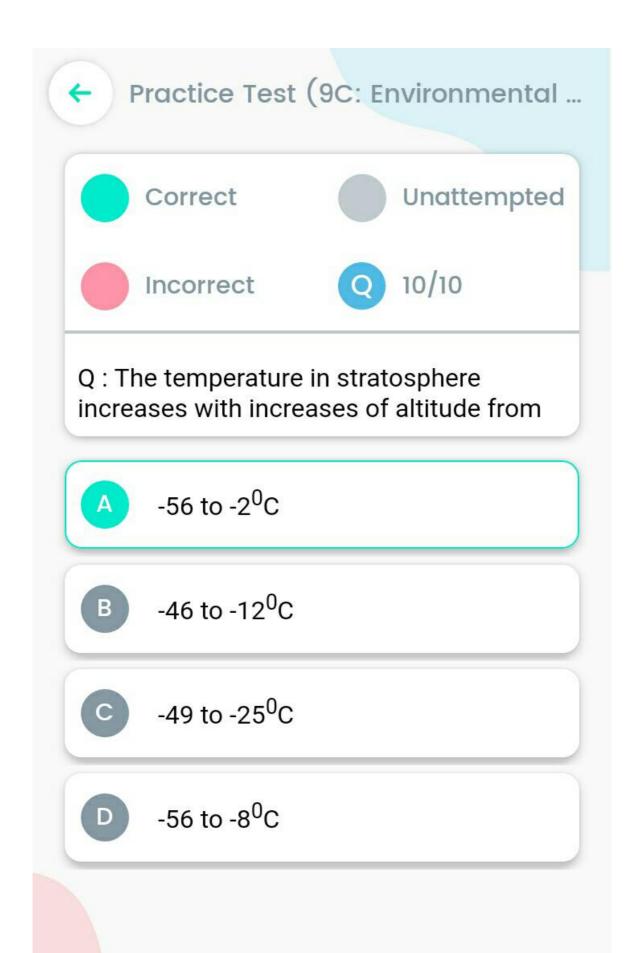
















TEST

Test Level-1 (9C: Environmental chemistry)



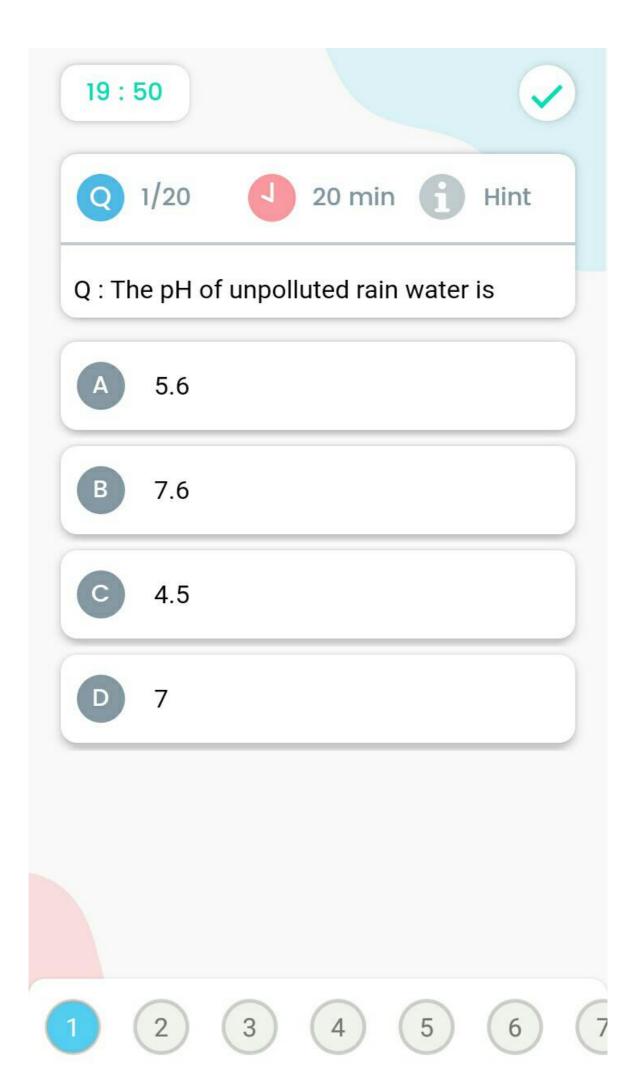


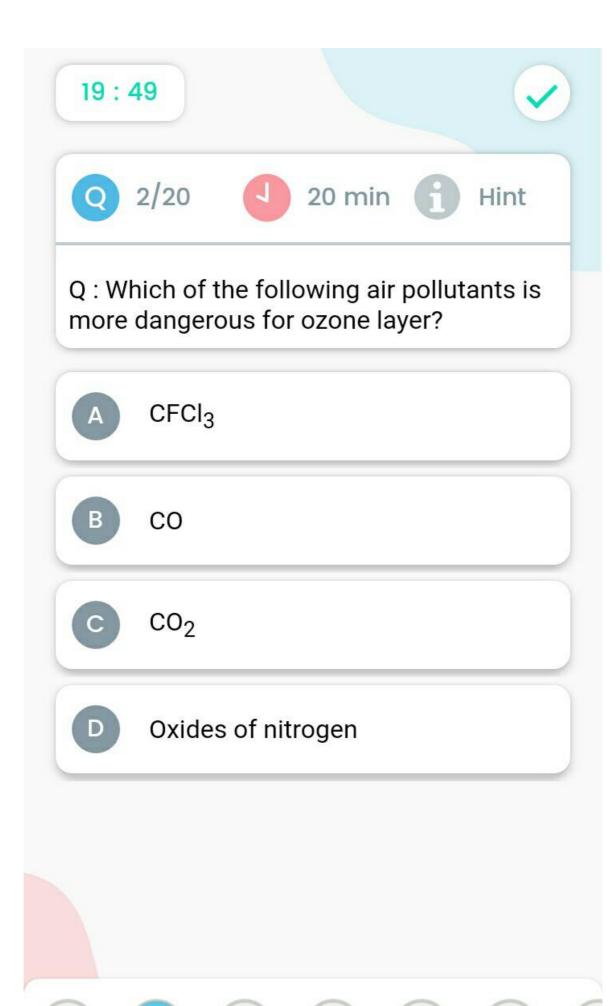
20 Questions 20 min

Topics

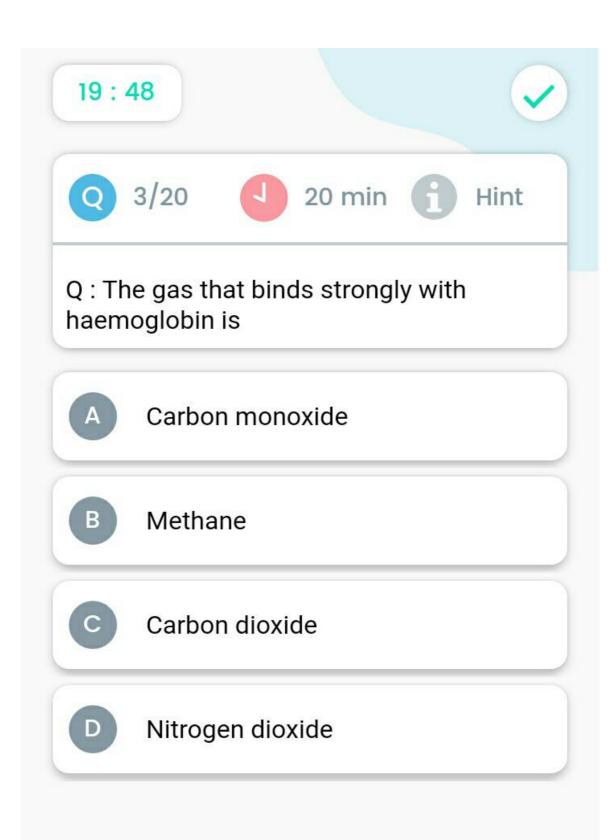
ENVIRONMENTAL CHEMISTRY, Air Pollution, Acid Rain, Smog and Ozone

Start Test

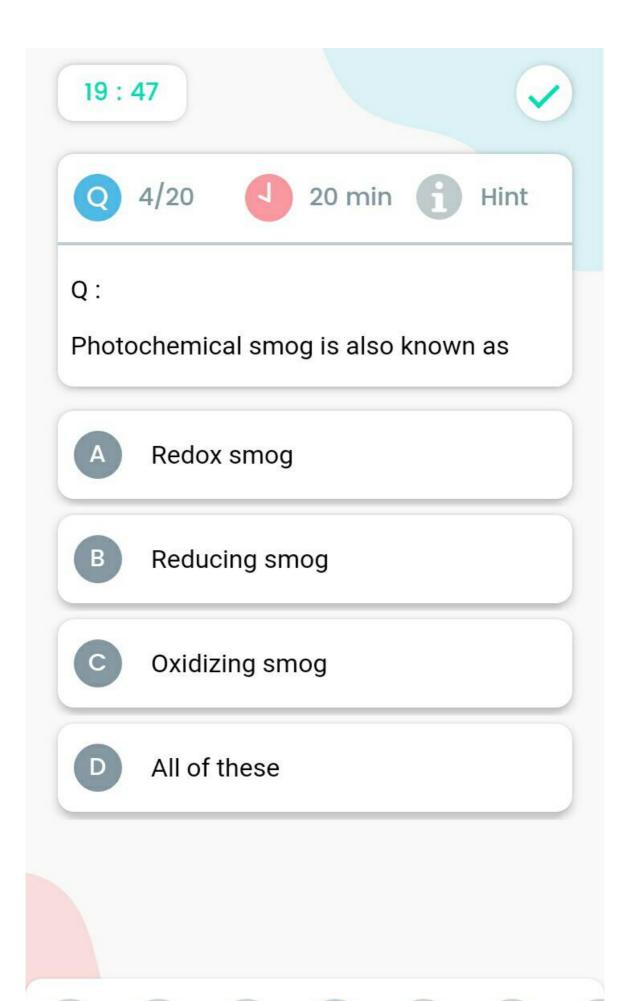




1 2 3 4 5 6















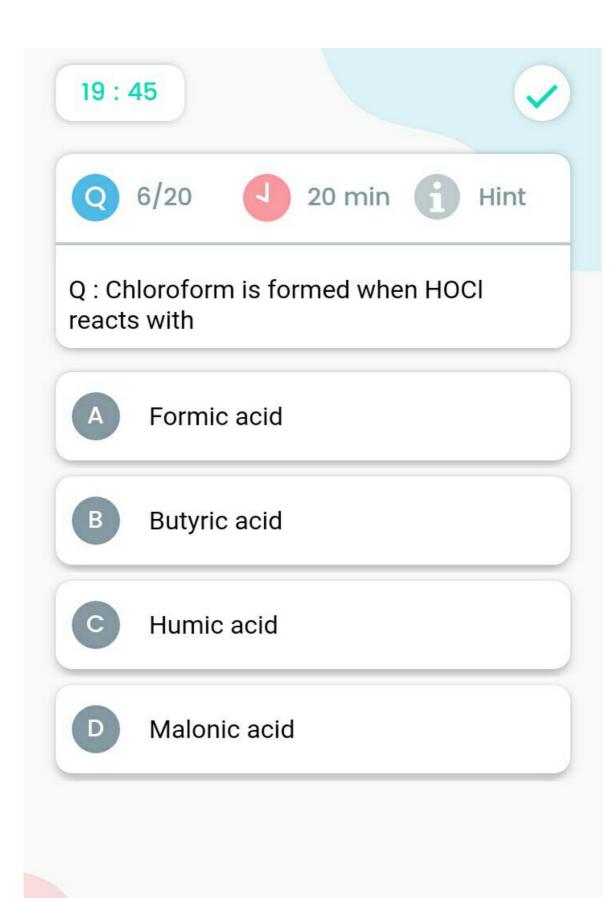
20 min 👔



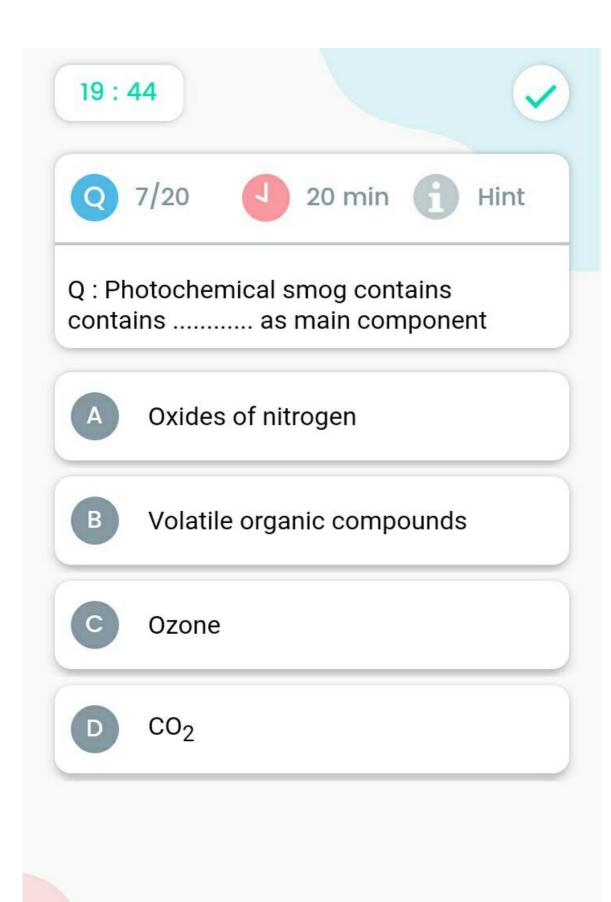
Hint

Q: Air pollution causes

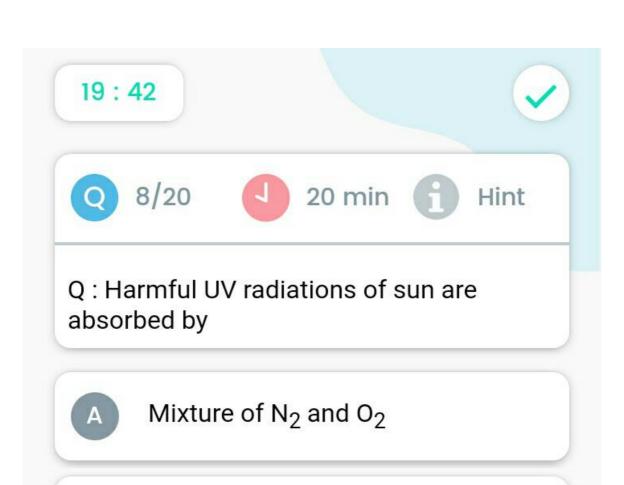
- Respiratory troubles in older people
- Acid rain
- The depletion of the ozone layer
- All of these







1) (2) (3) (4) (5) (6)



- B Mixture of NO₂ and CO₂
- © Ozone
- All of these





















20 min



Hint

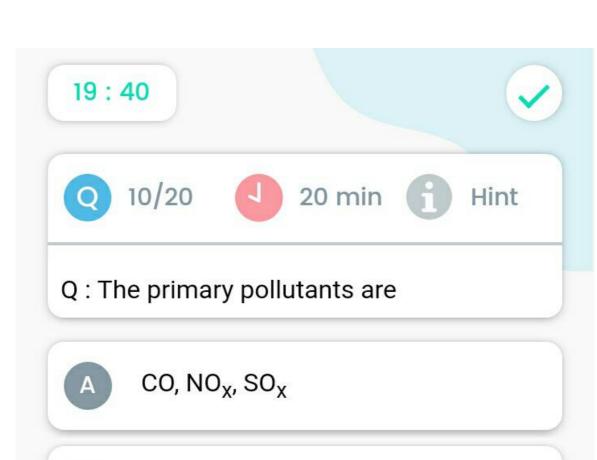
Q: Reducing smog contains ----- as main component.

- Oxides of Nitrogen
- Volatile organic compound
- Sulphur Dioxide
- Ozone









- B HNO₃
- C H₂SO₄
- D HNO₂

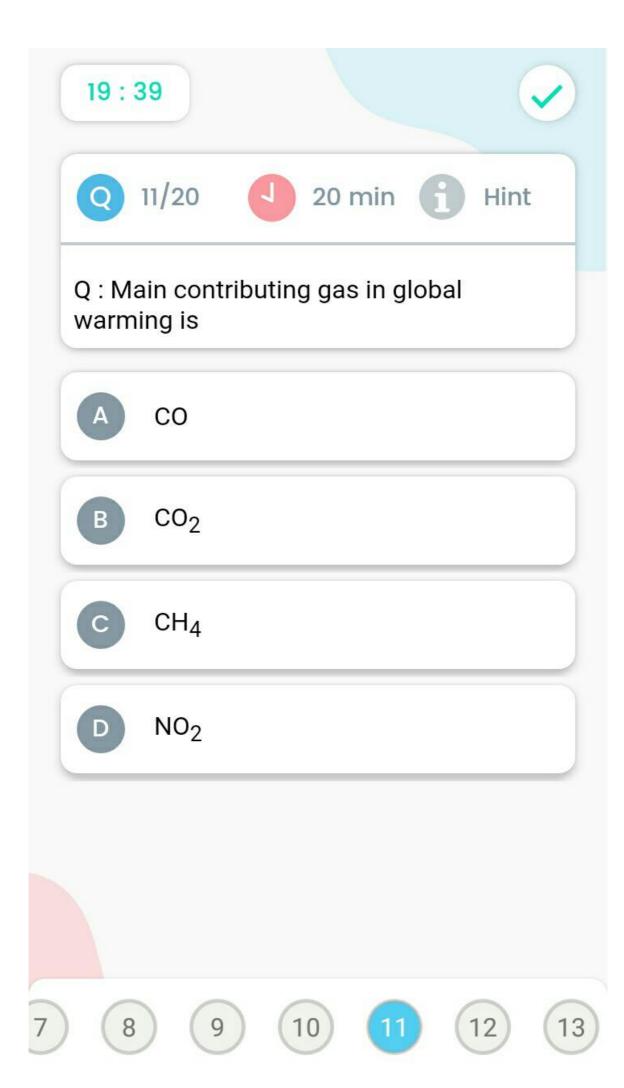


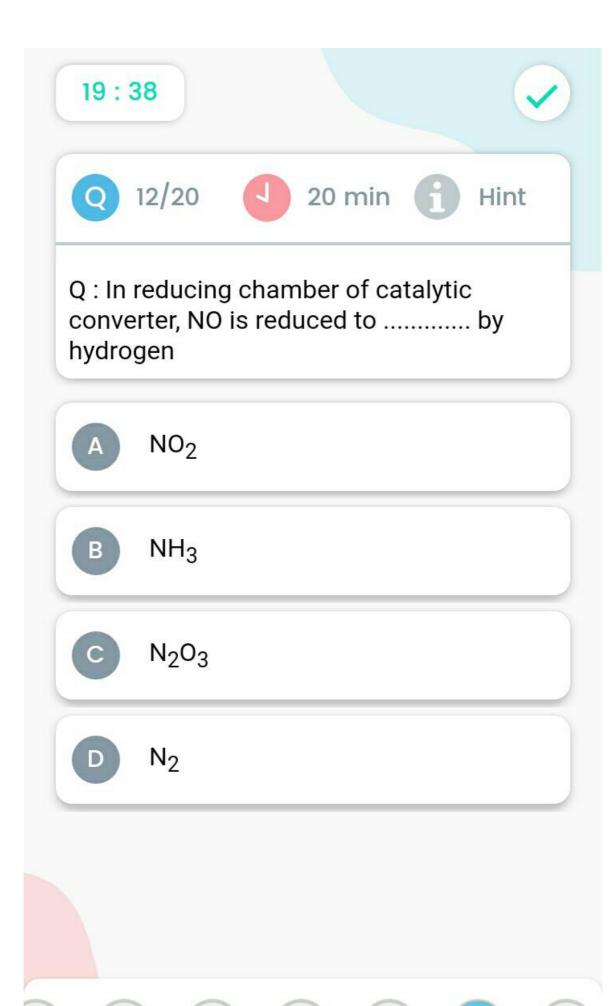




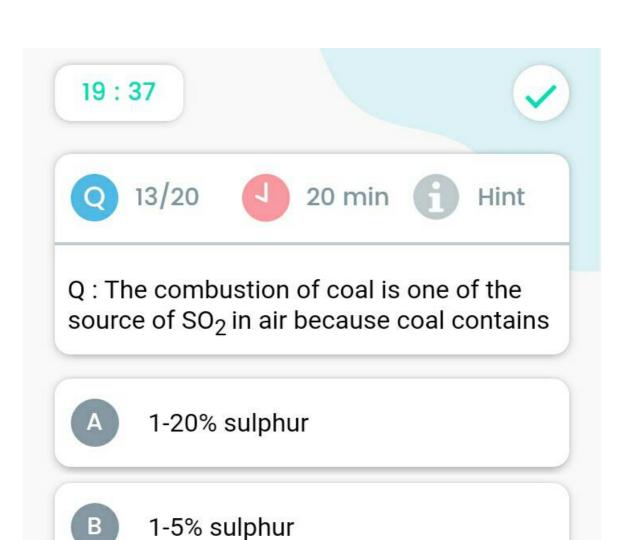








7 (8) (9) (10) (11)



1-2% sulphur

1-9% sulphur









20 min



Hint

 $Q:SO_2$ and SO_3 through various reactions in the atmosphere form

- Acid Rain
- Sulphate aerosols
- Acid deposition
- All of these









20 min 🚹 Hint



Q: The residence time of NO in the atmosphere is

- 3 7 Years
- 1 2 Days
- 3 4 days
- Few hours





- 16/20

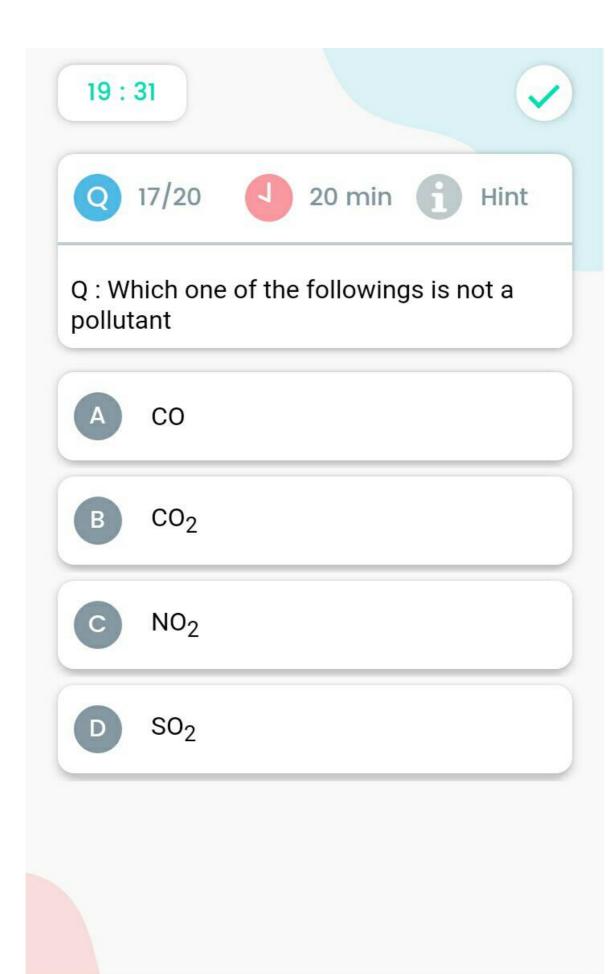
20 min 👔



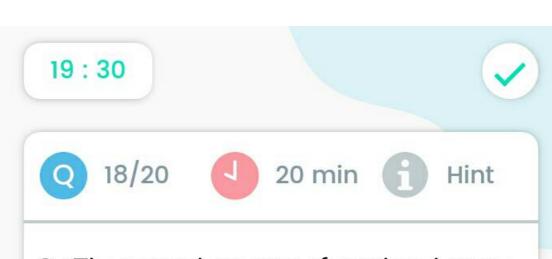
Hint

Q : Yellowish brown gray haze refers to:

- Oxidizing smog
- Reducing smog
- Neutral smog
- Super smog



4 15 16 17 18 19 20



Q : The normal amount of overhead ozone is

- A 300 DU
- B 400 DU
- 350 DU
- 450 DU











20 min



Hint

Q: 100000 Ozone molecules destroyed by free radical

- 100 chlorine free radical
- 1 chlorine free radical
- 100 hydrogen free radical
- 1 hydrogen free radical









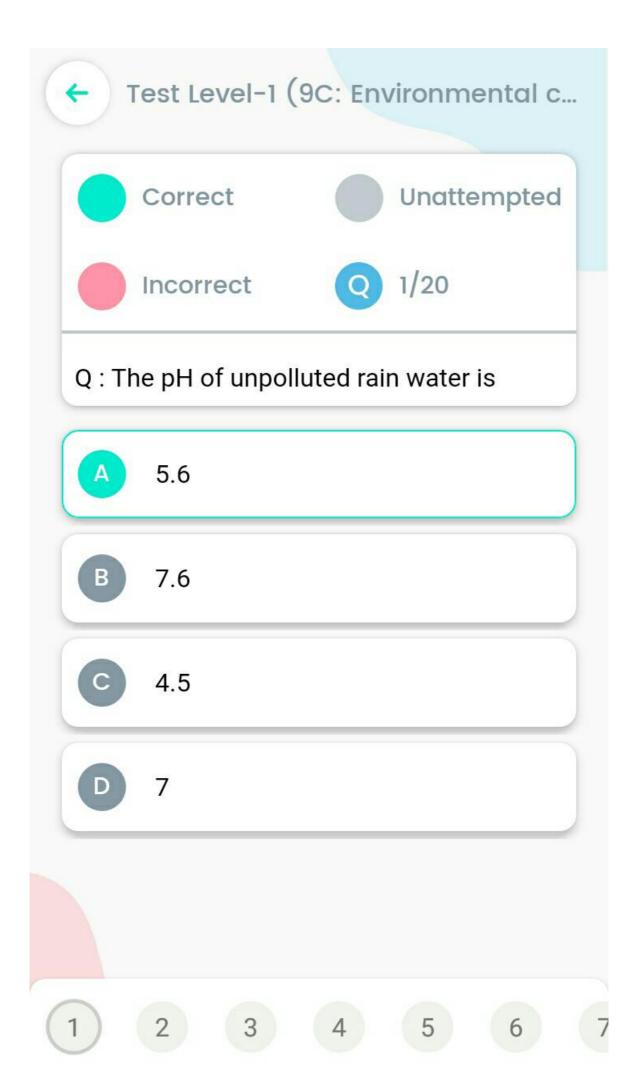


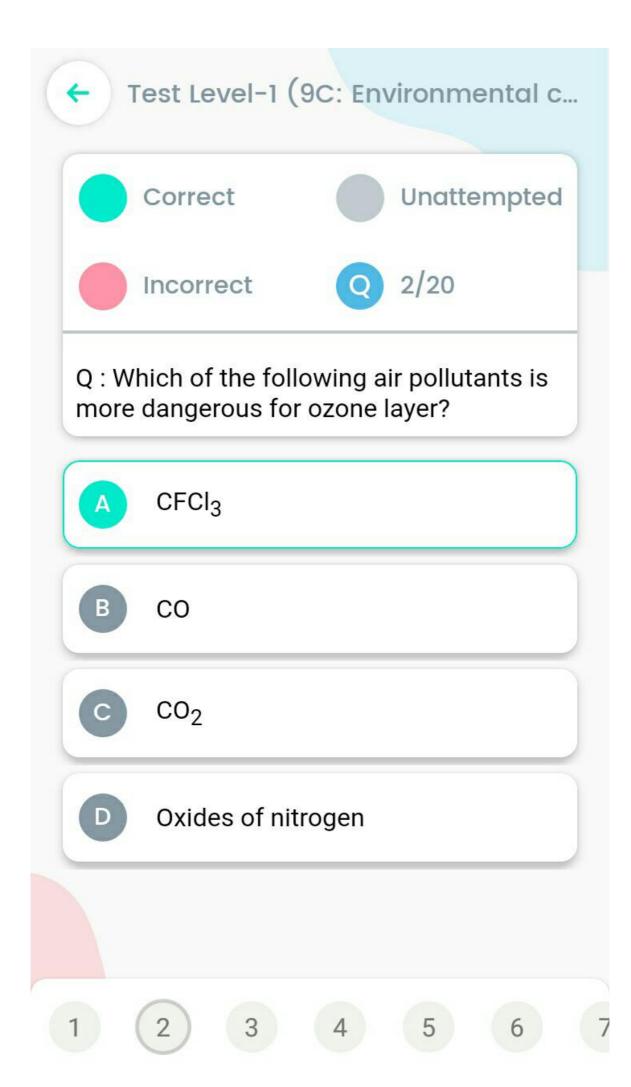


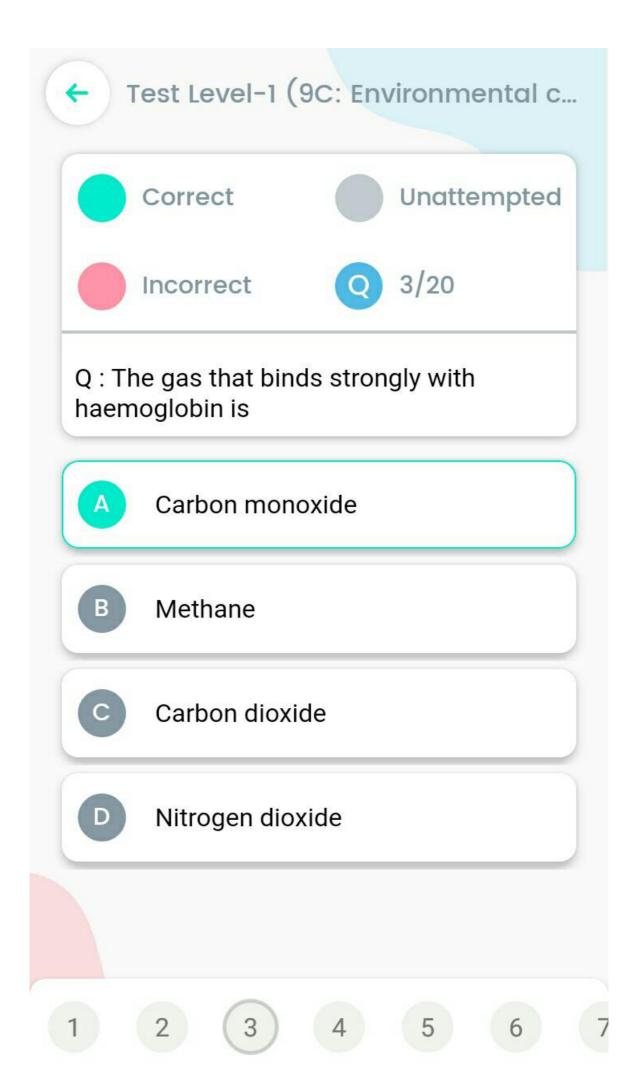
Hint

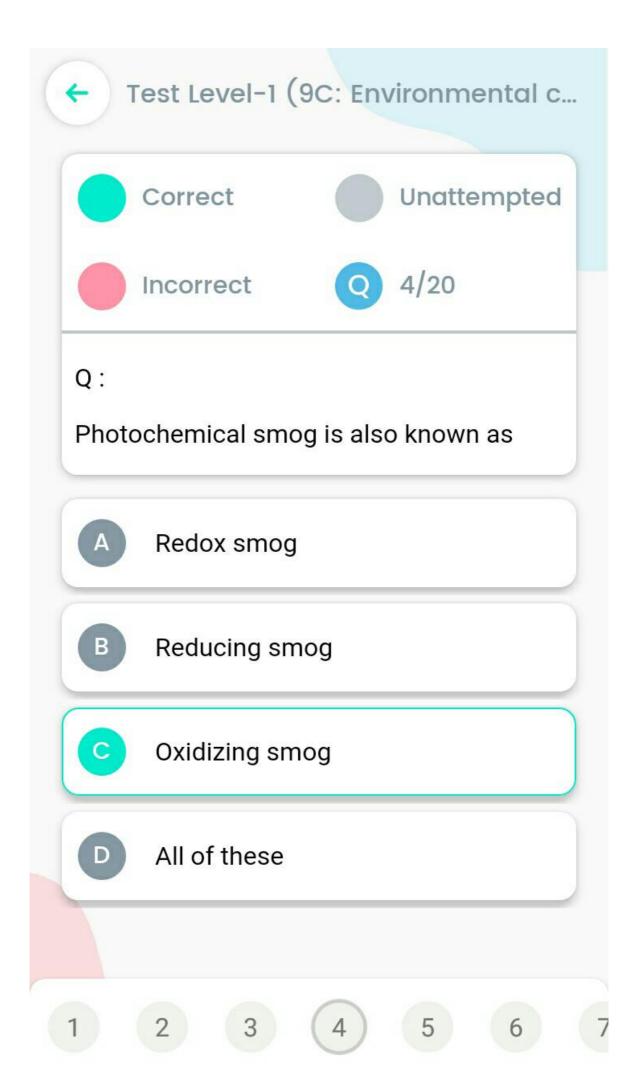
Q: Hydrocarbons are dispersed in the atmosphere due to

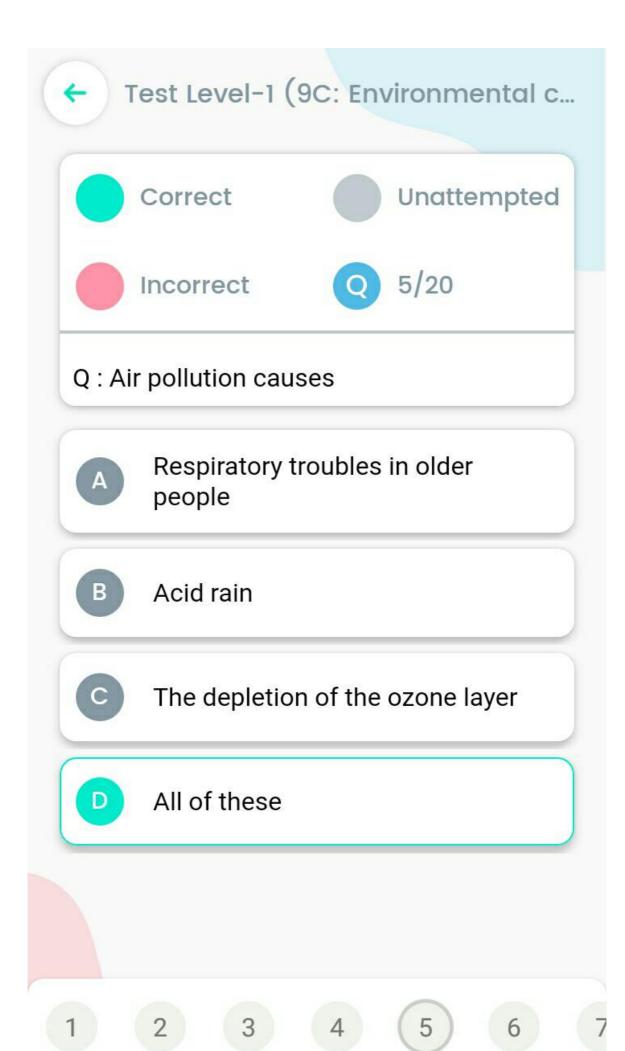
- **Automobiles**
- Incinerators
- Solvent evaporators
- All of theses

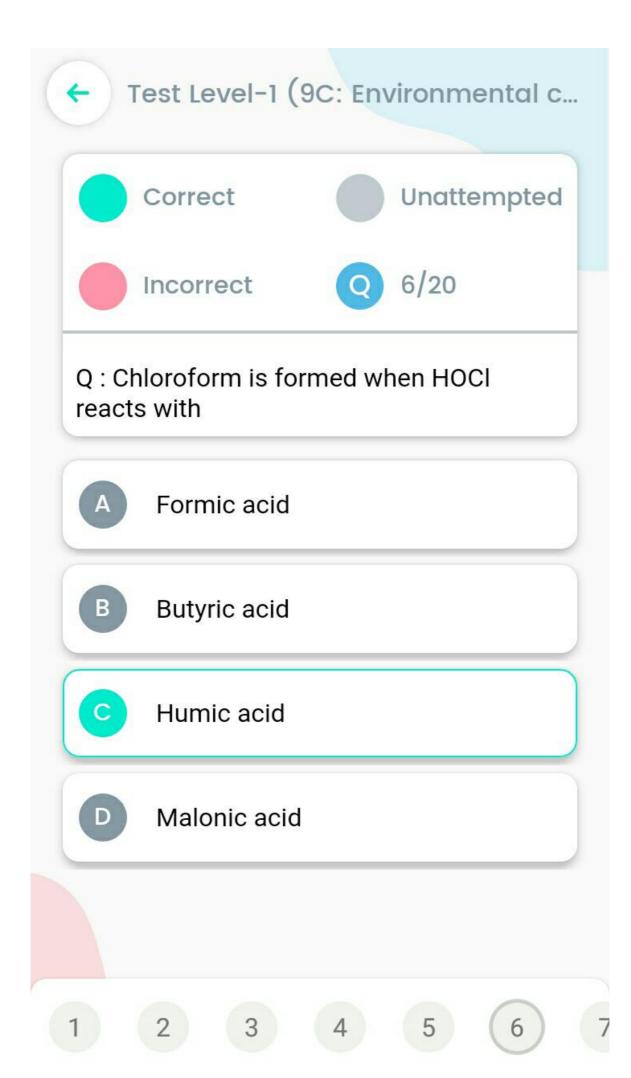


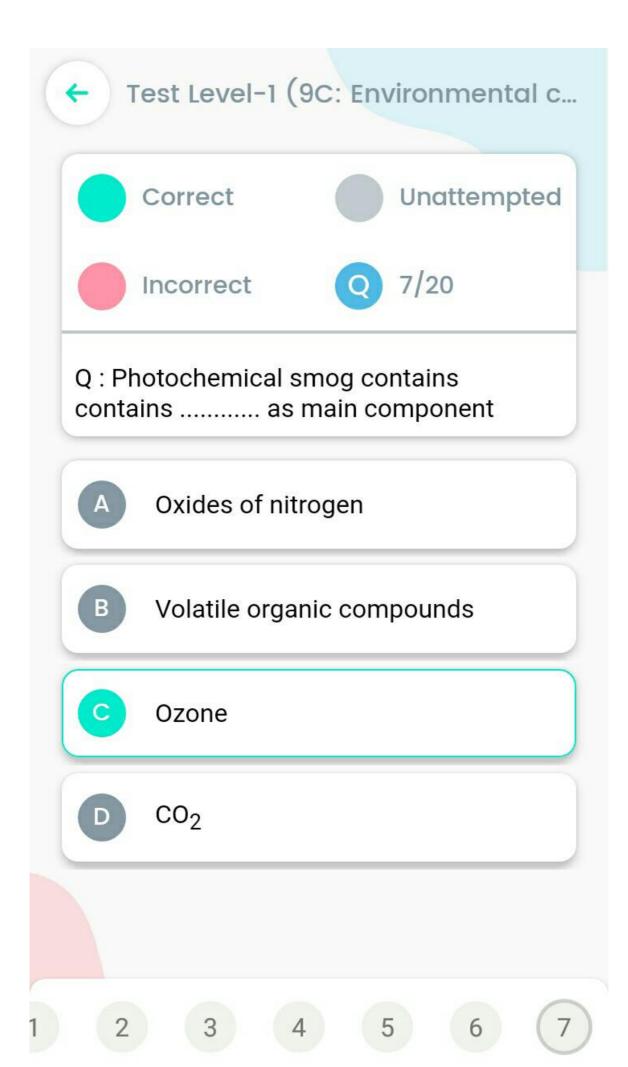


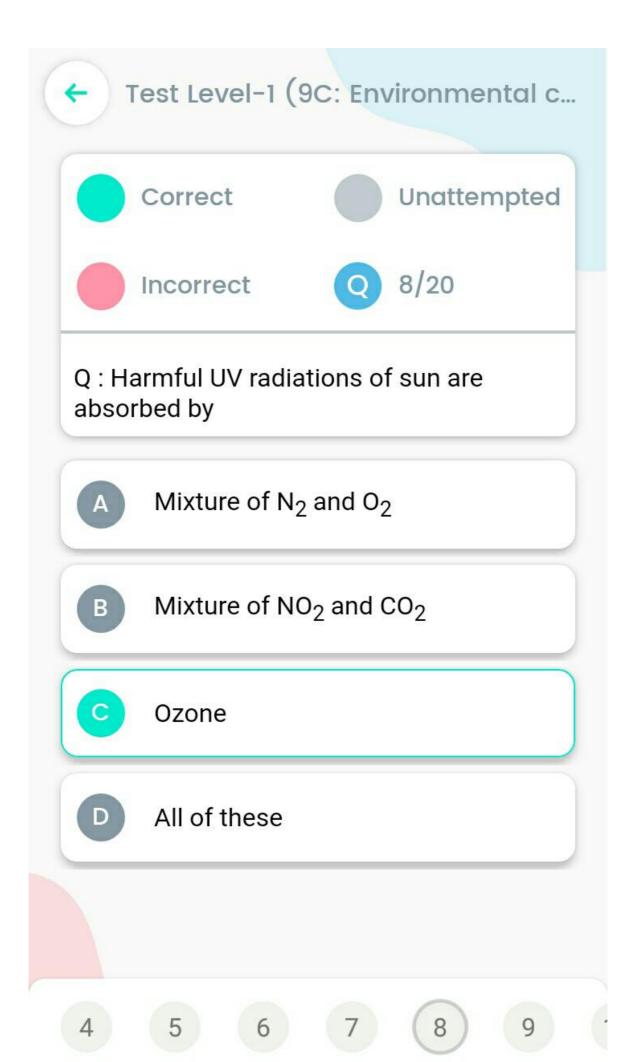


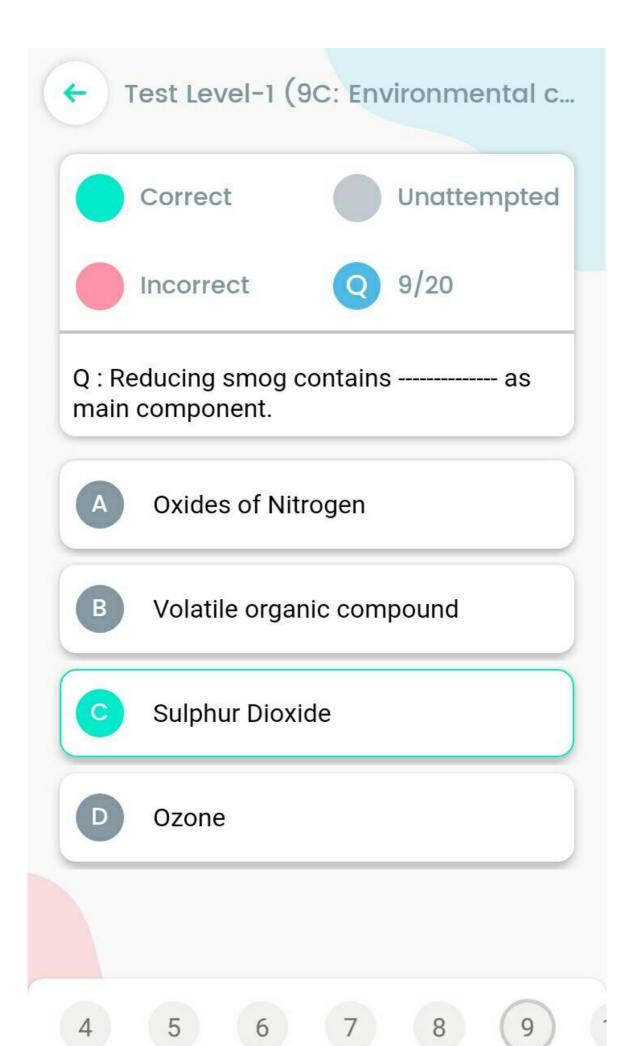


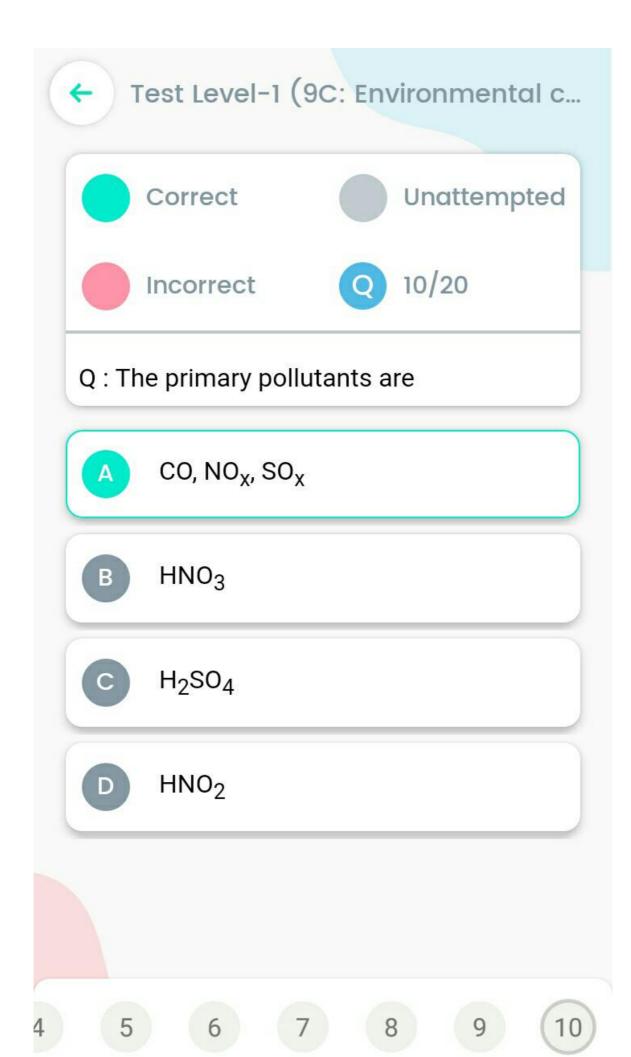


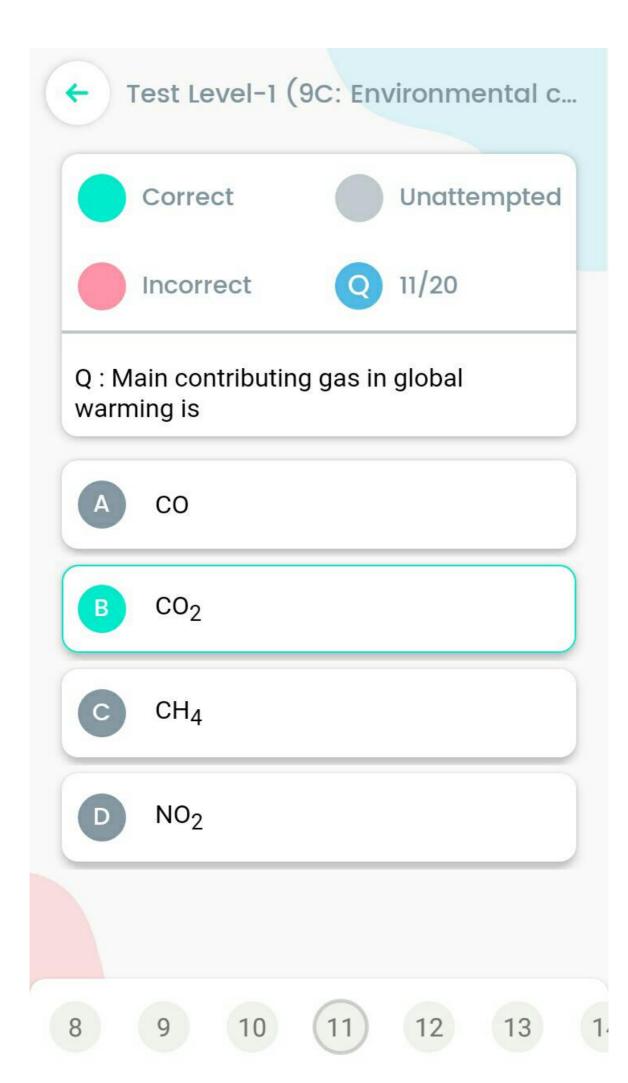


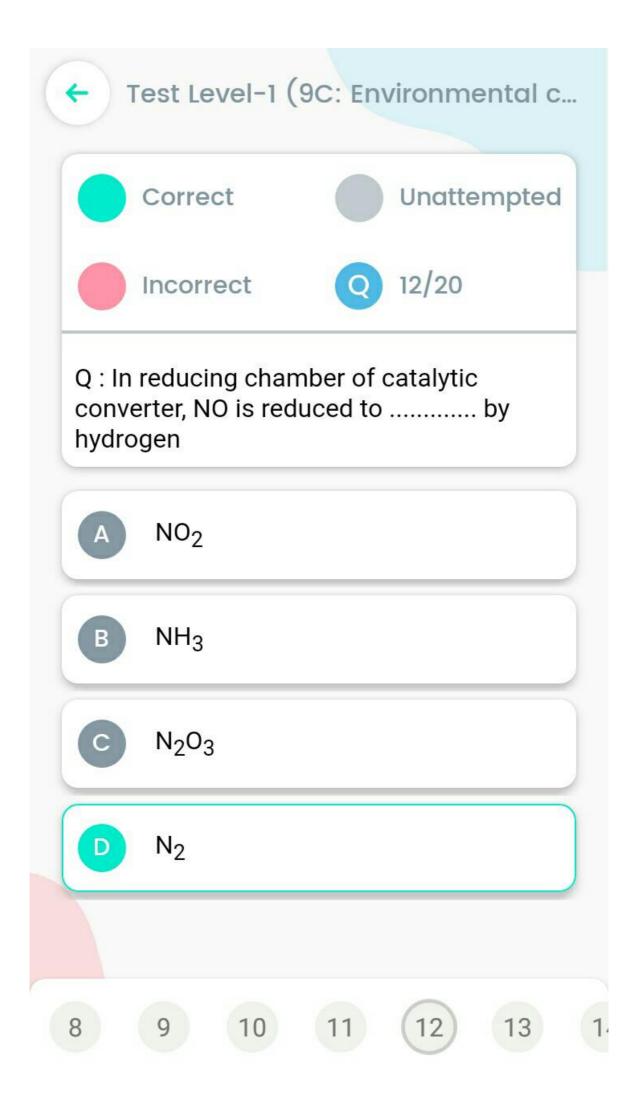


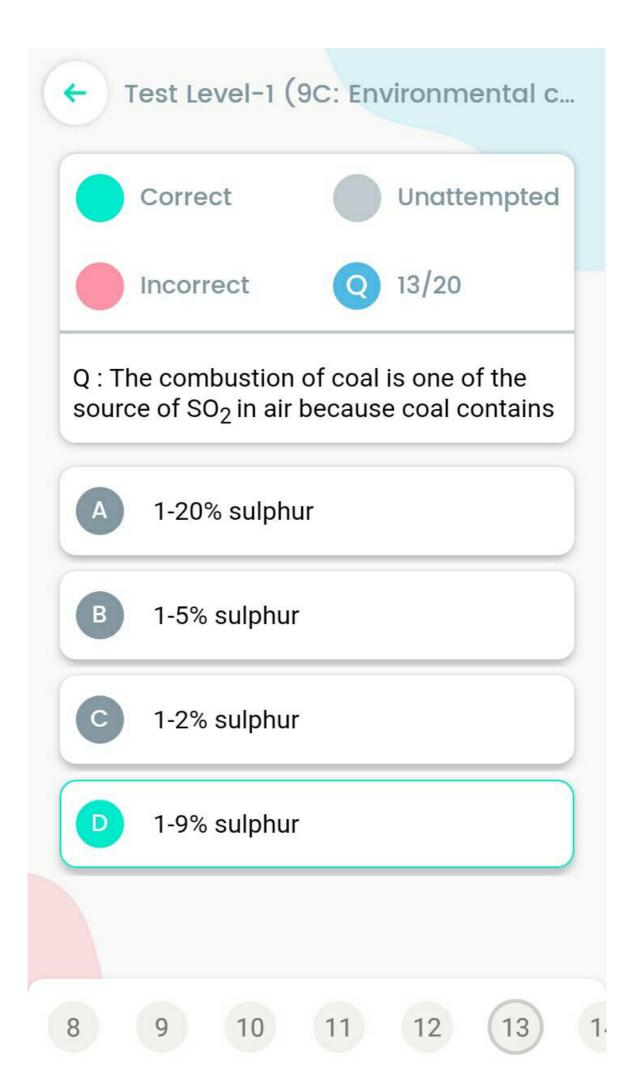


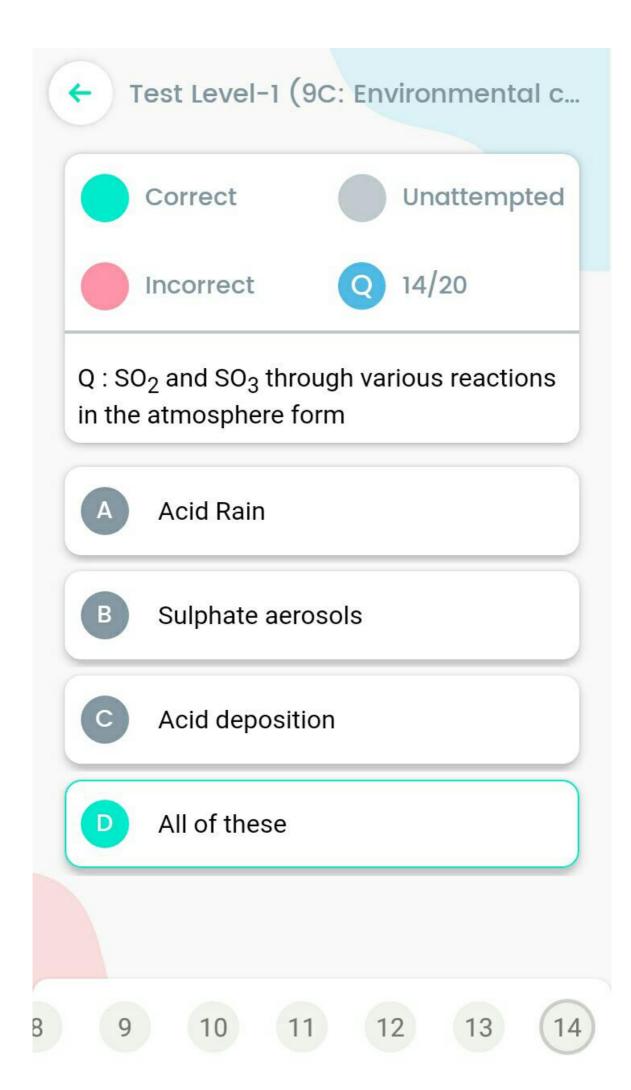


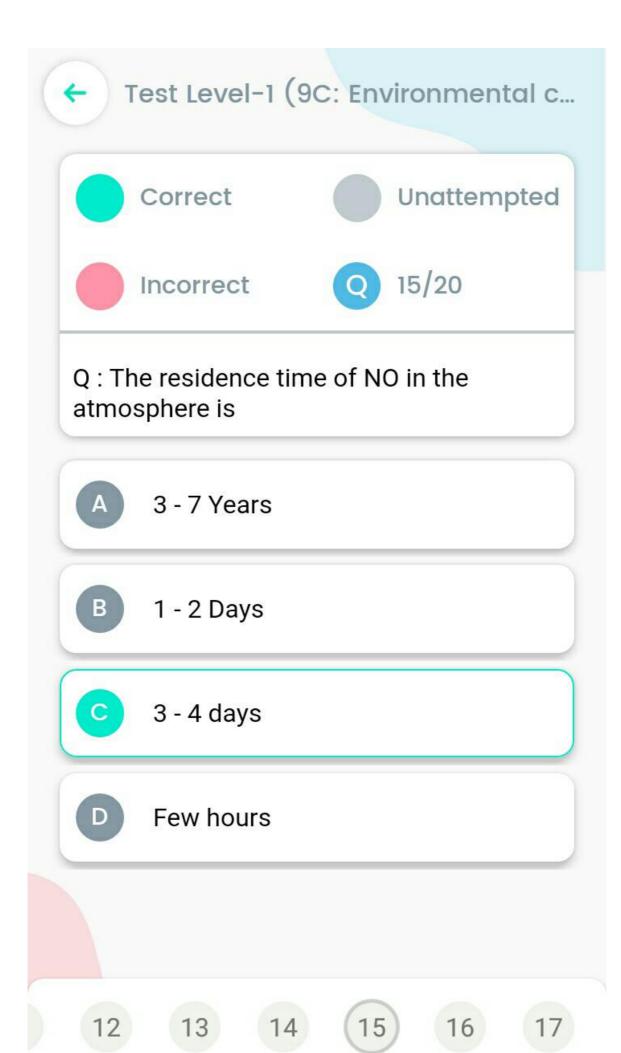


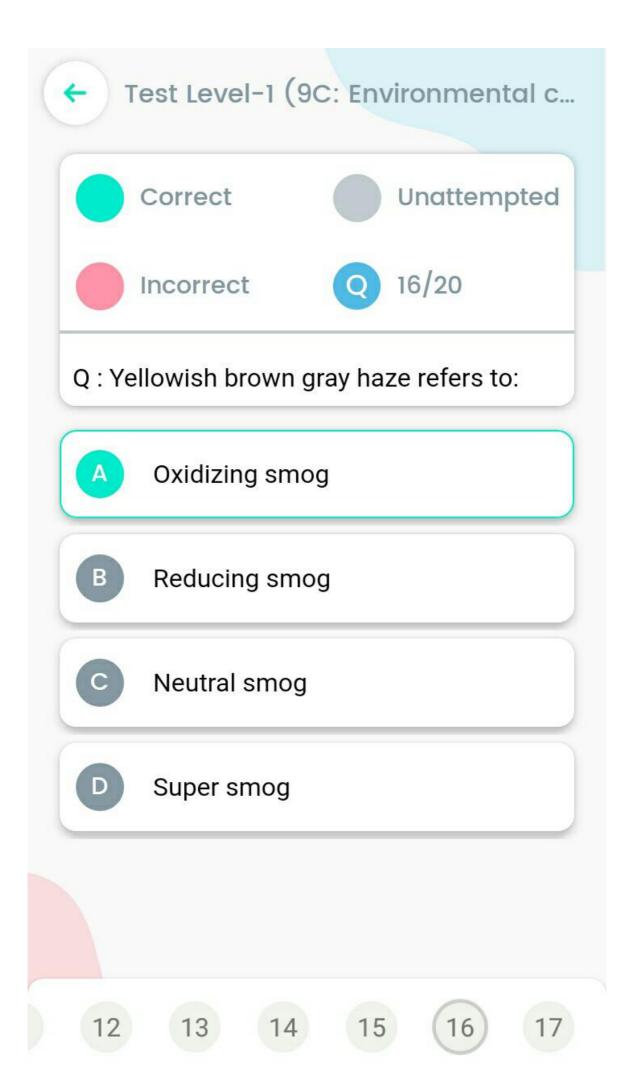


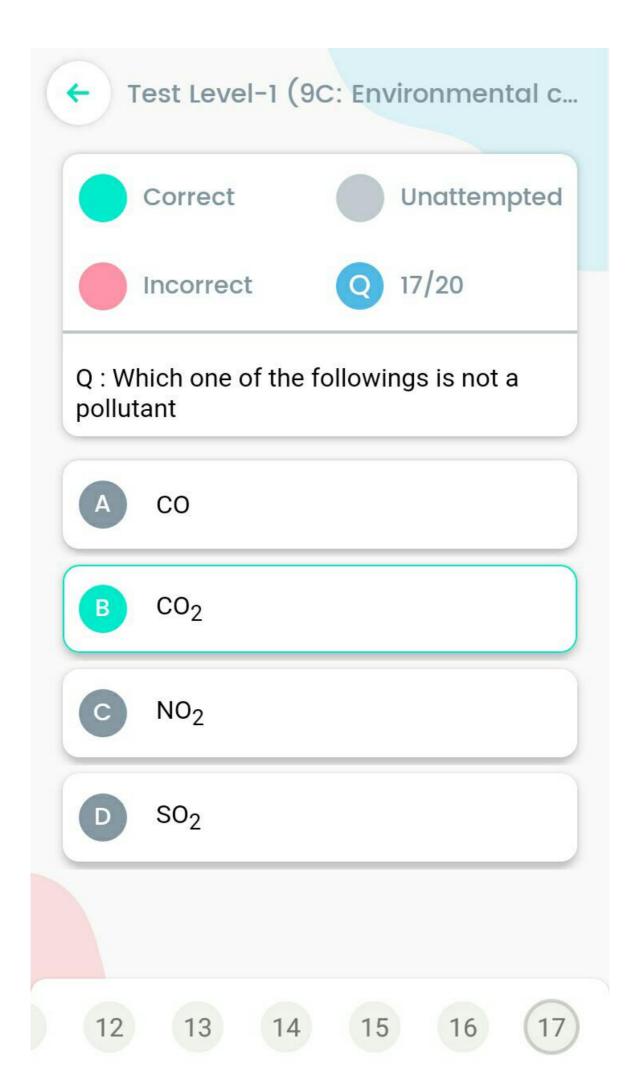


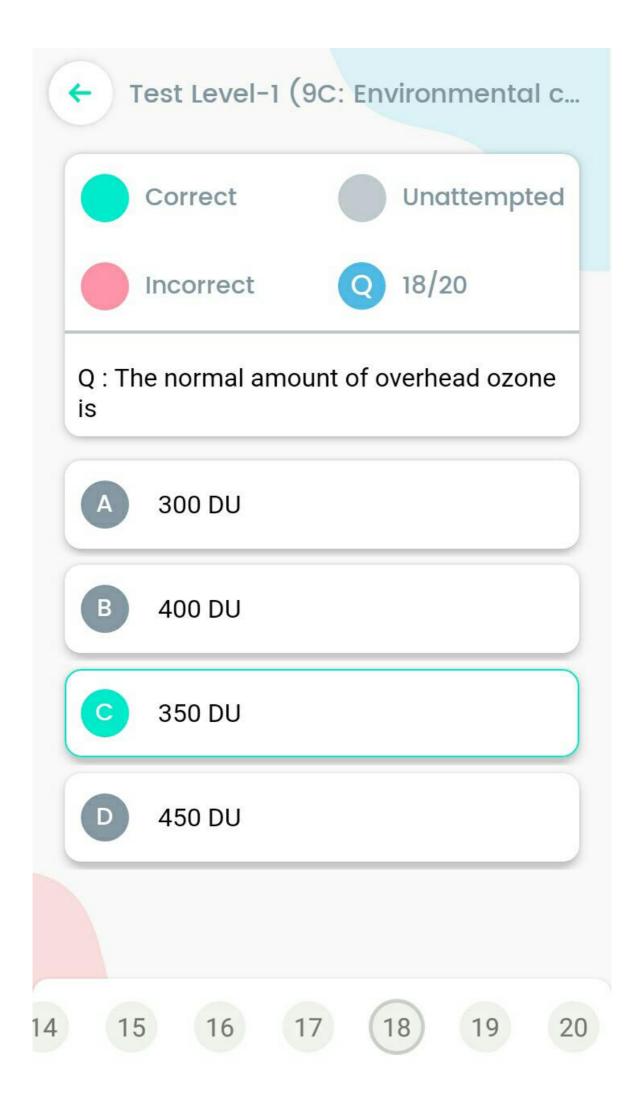


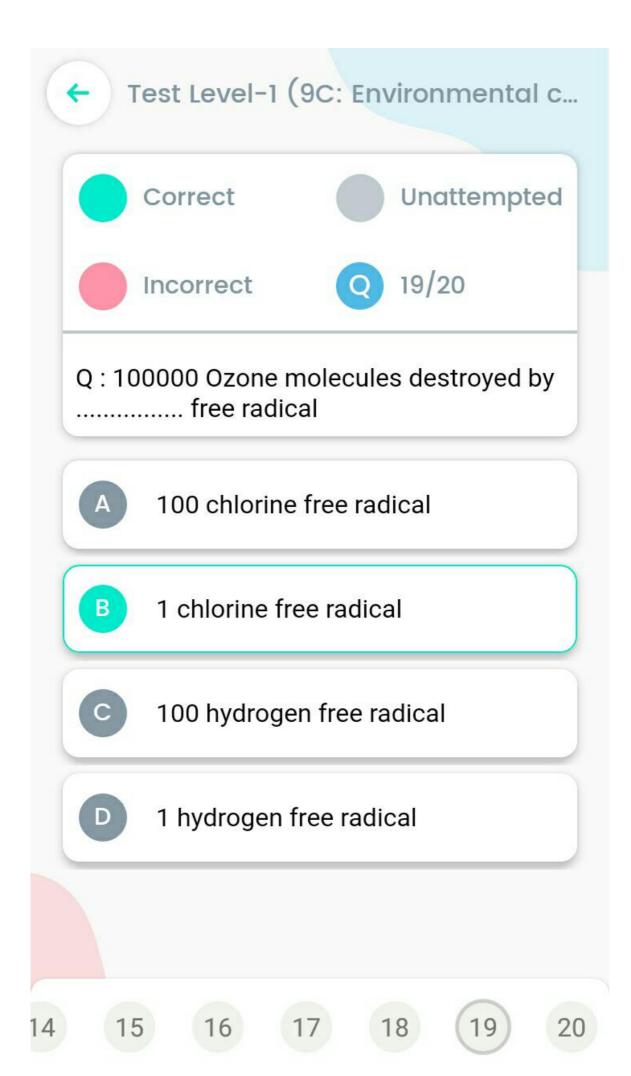


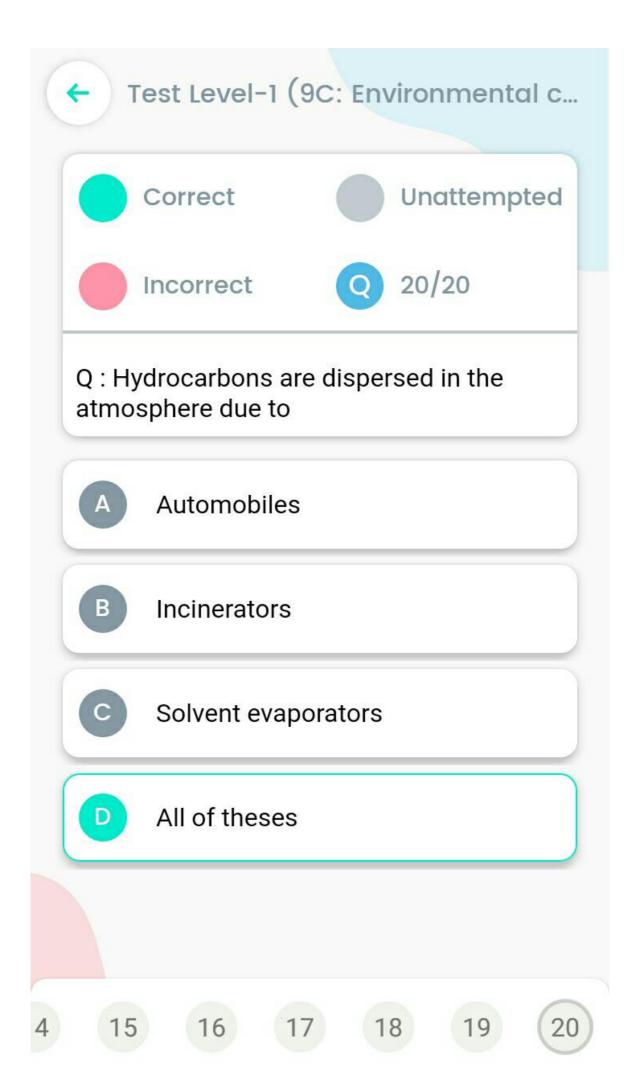
















TEST

Test Level-2 (Topic 9C)



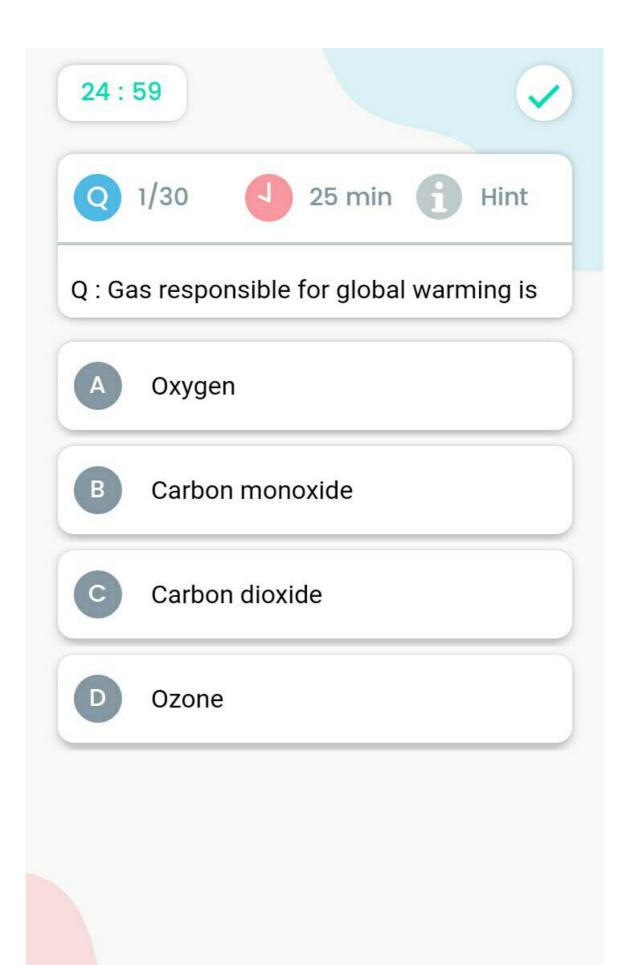




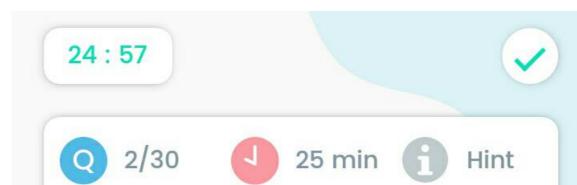
Topics

Air Pollution, Acid Rain, Smog and Ozone

Start Test



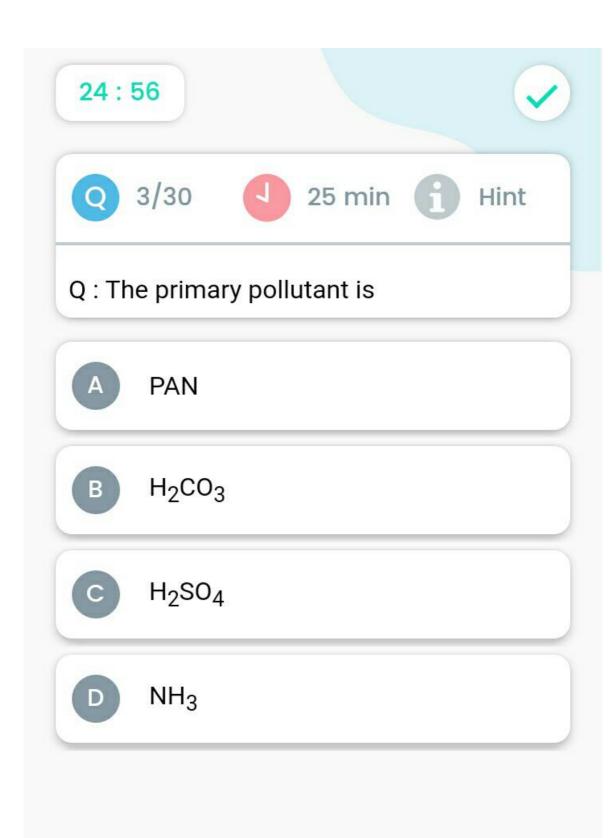
1 2 3 4 5 6 7



Q : Deformation of ozone in stratosphere is caused by which chemical specie

- A UV radiation
- B Sunlight
- Atmospheric oxygen
- D CFC's





1 2 3 4 5 6 7









25 min Hint

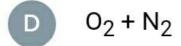


Q: The CO poisoning can be reversed by giving high pressure of



















25 min



Hint

Q: Which of the following is incorrect statement

- The residence time of NO in the atmosphere is 3 days
- The burning of fuel in presence of air in internal combustion engine also produces NO
- Gasoline is source of NO emission into atmosphere
- The anaerobic bacterial action produces NO_x mainly NO

1

2

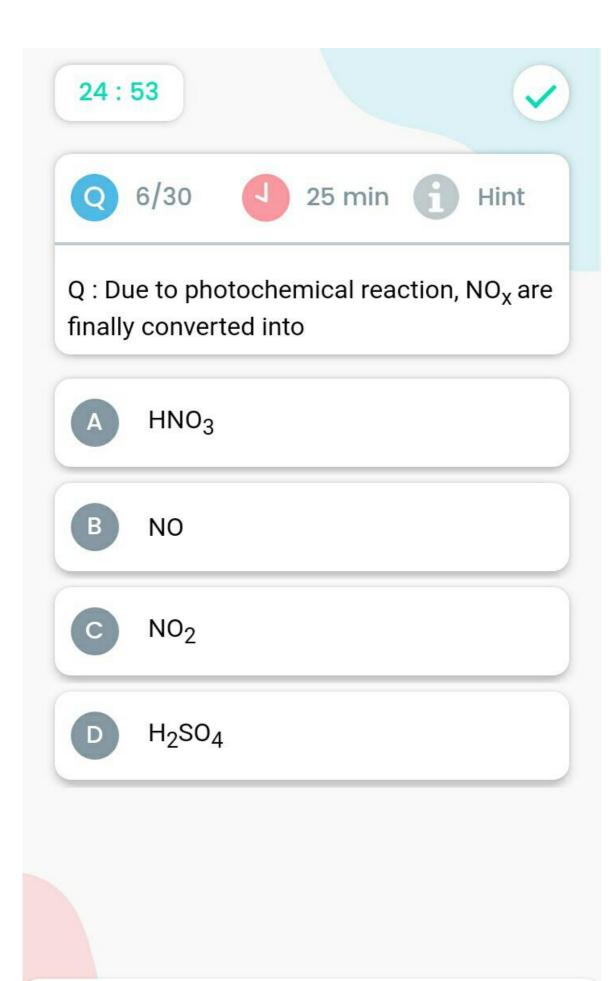
3

4

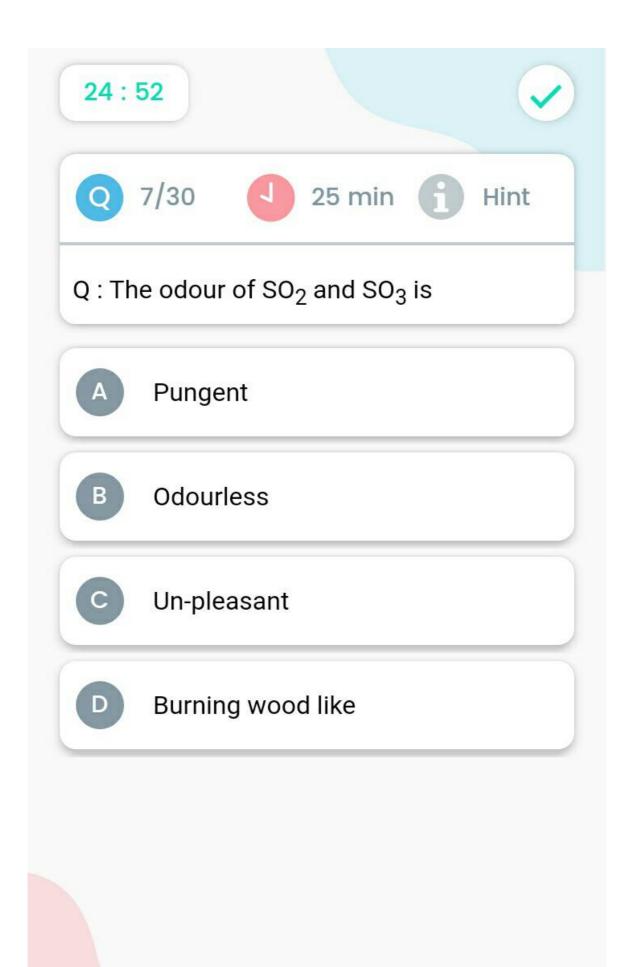
5

6

/







1) (2) (3) (4)











8/30



25 min 📆



Hint

Q: The environmental conditions required for the reaction given is/are

$$SO_2 + \frac{1}{2}O_2 + H_2O \xrightarrow{?} H_2SO_2$$

- Hydrocarbon, aqueous
- Hydrocarbon, smoke, metal oxides
- Hydrocarbon only
- High temperature, low pressure

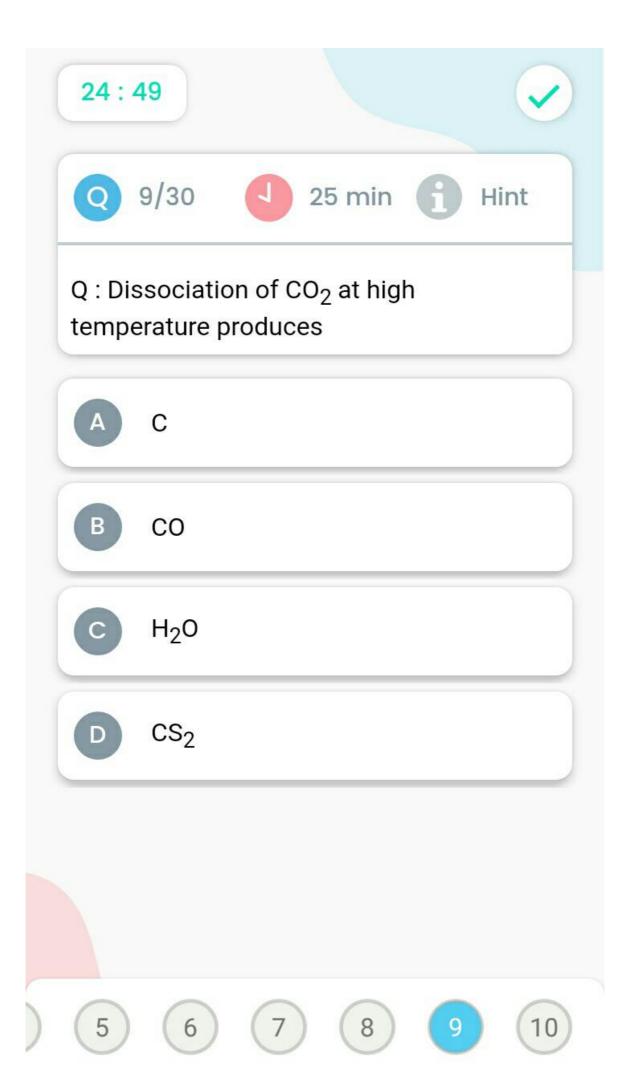


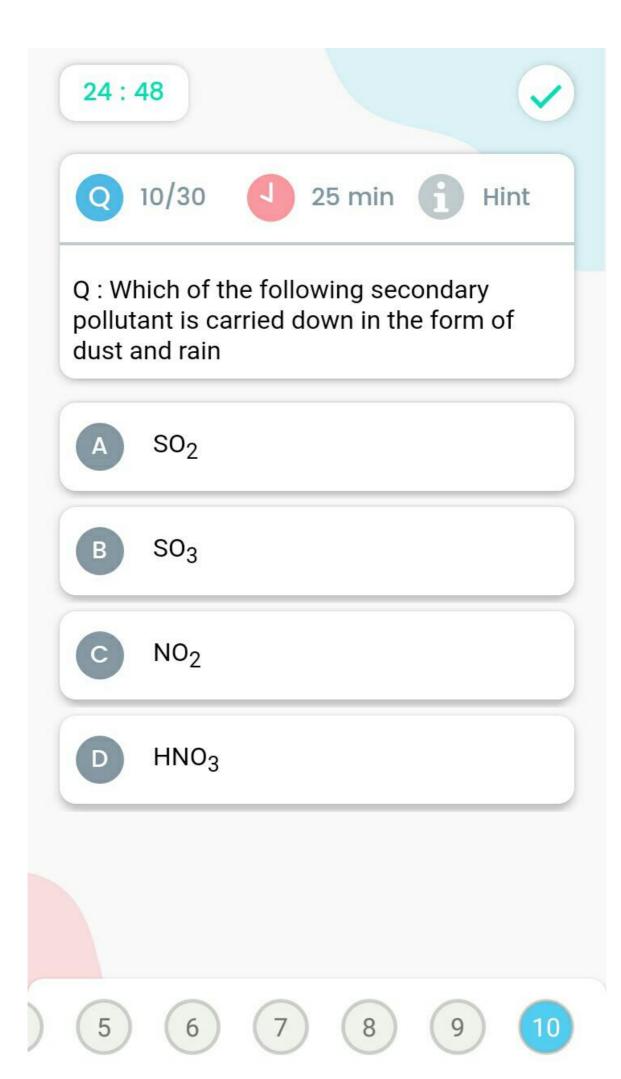


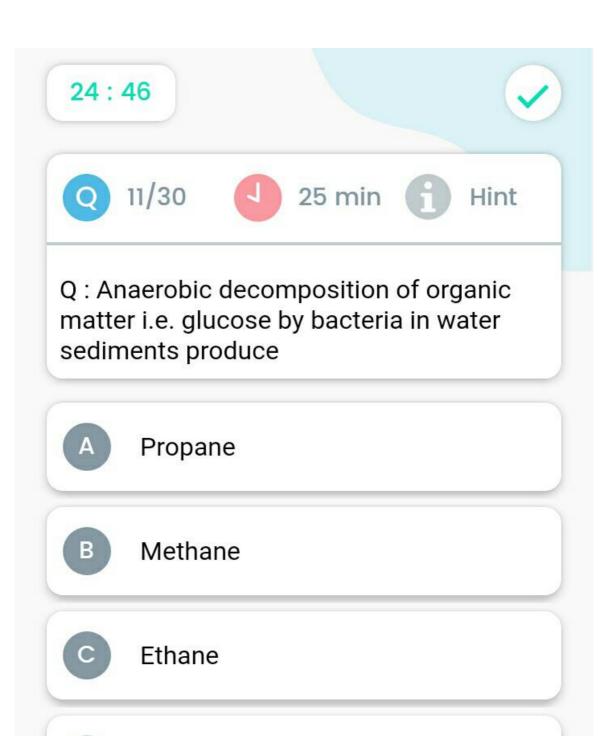












Butane









12/30



25 min 👚



Hint

Q: Following are sources of emission of hydrocarbons into atmosphere by human activities except

- Paddy fields
- Coal
- Solvent evaporator
- Incinerators













- 13/30
- 25 min 👔

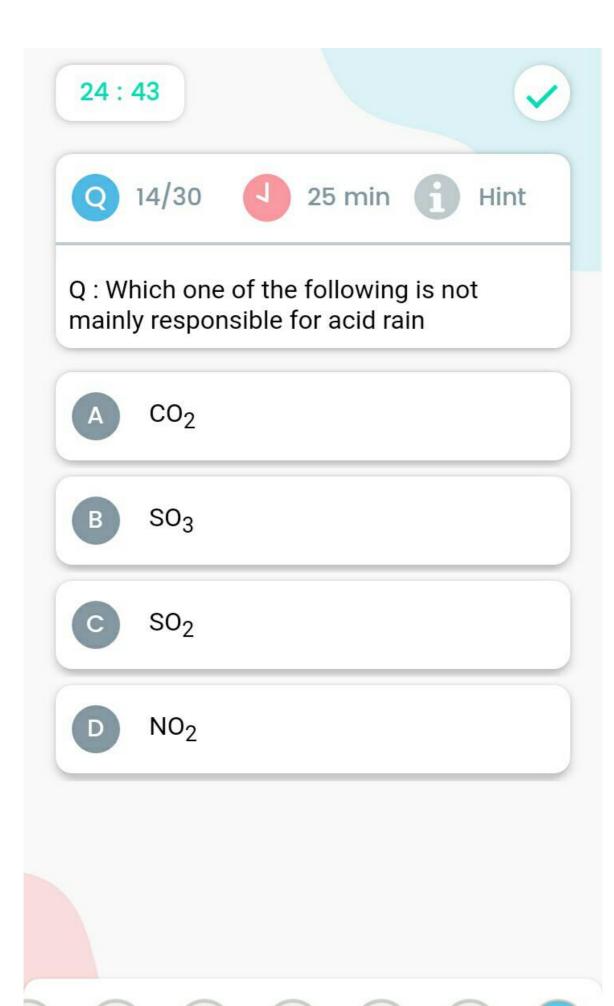
Hint

Q: Air pollution causes:

- Respiratory troubles in older people
- The depletion of the ozone layer В
- Acid rain
- All of the above







(9



















Q : The amount of ozone in the atmosphere is expressed in

- A Dobson units
- B Dupent
- C Debye
- Debackle

11

12

13

14

15

16









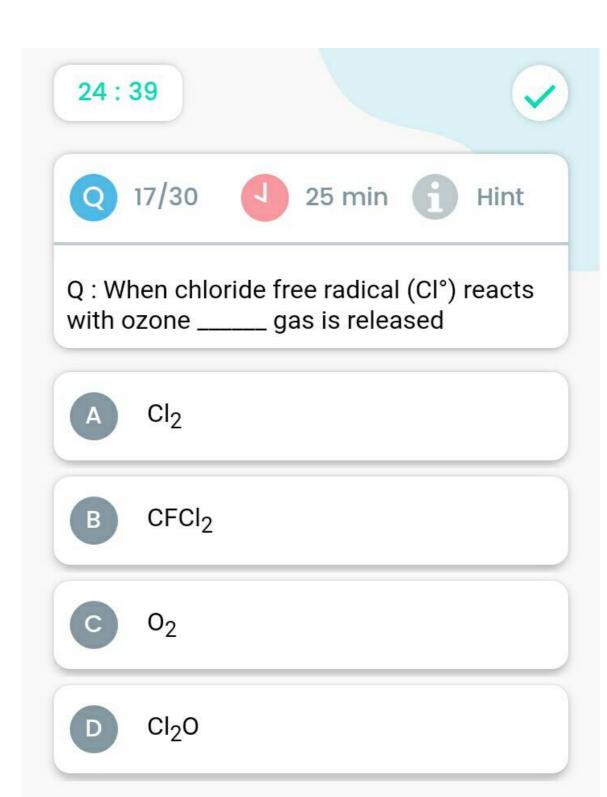
25 min 👚



Hint

Q: The type of reactions the convert oxygen into ozone

- Oxidation reactions
- Photo chemical reactions
- Redox reactions
- Reduction reactions



1) (12) (13) (14) (15) (16) (17)









25 min 👚



Hint

Q: Ozone can be beneficial because it can

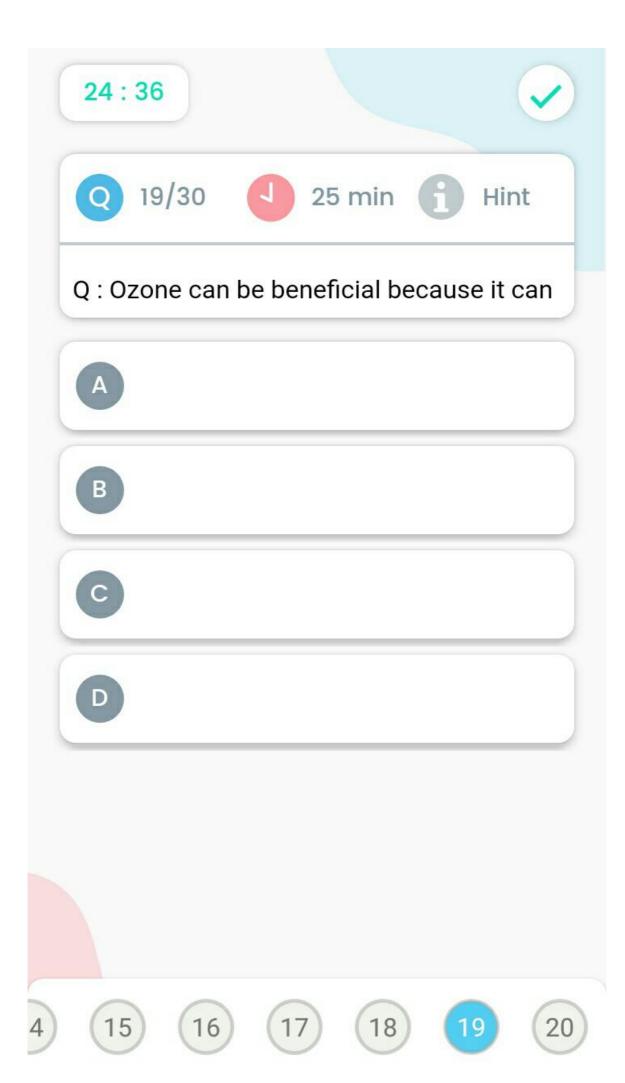
- Be used as disinfectant
- Produce eye disorder
- Cause lungs disorder
- All of these















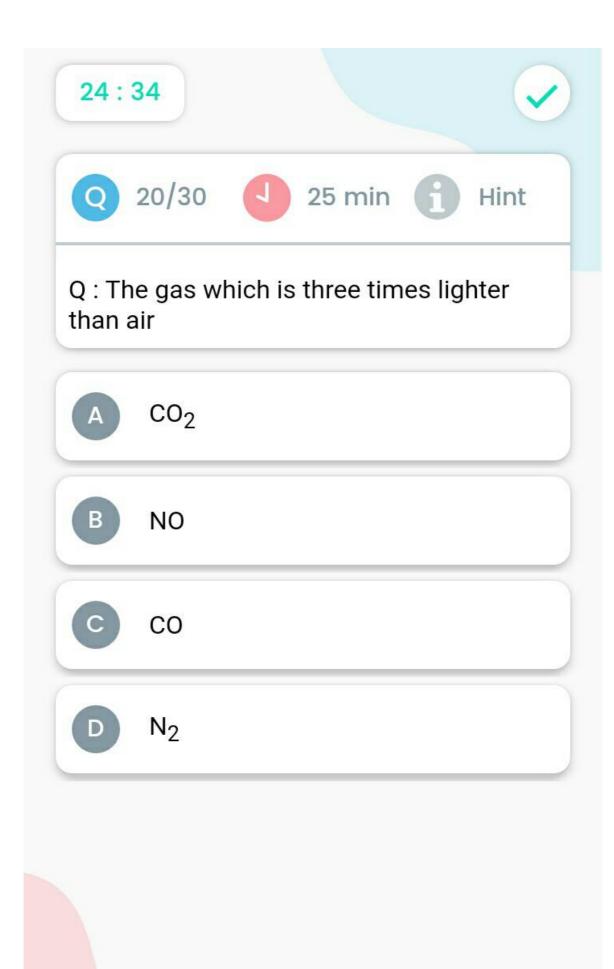
- 19/30

25 min Hint



Q : The pH of the acid rain is a about

- 5.6
- More than 6
- Less than 5
- 5.2











25 min 👔



Hint

Q : Large quantities of _____ are emitted by different trees and plants in the atmosphere



- Hydrocarbons
- NO_X
- CO

















25 min 👔



Hint

Q: Chlorofluorocarbons (CFCs) are _____ in the troposphere

- Diffused
- Active
- Inert
- Decomposed











Q:

Ozone is harmful in

- Mesosphere
- Troposphere
- Stratosphere
- Thermosphere











Q : The pH of un-polluted rain water should be

Less than 5

7

5.6

7.35



24:26





Q: Acidic rain is due to elevated level of

- H⁺ion
- SO_4^{-2} ion
- 02
- OH-ion











Hint

Q : Ozone in stratosphere is depleted by

- Temperature changes
- **CFCs**
- Acid Rain
- All of these









25 min



Hint

Q: Ozone hole refers to

A hole in ozone layer



- Reduction in thickness in ozone layer in stratosphere
- Reduction in thickness in ozone layer in troposphere
- Increased concentration of ozone













Q: Residence time of NO in air is

- 3 Days
- 4 Days
- 5 Days
- 6 Days D

25

26











Hint

Q:

The better substituent for CFCs to avoid O₃ depletion is

- Freon
- Fluoro-chloro methanes
- Hydrofluorocarbons
- All of these











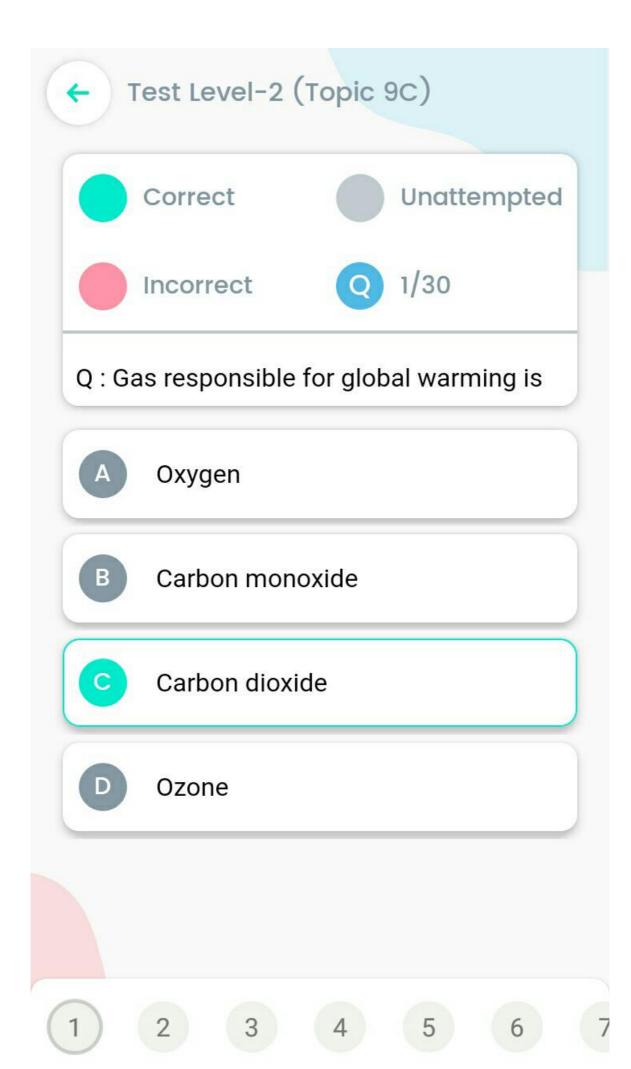
25 min 👚

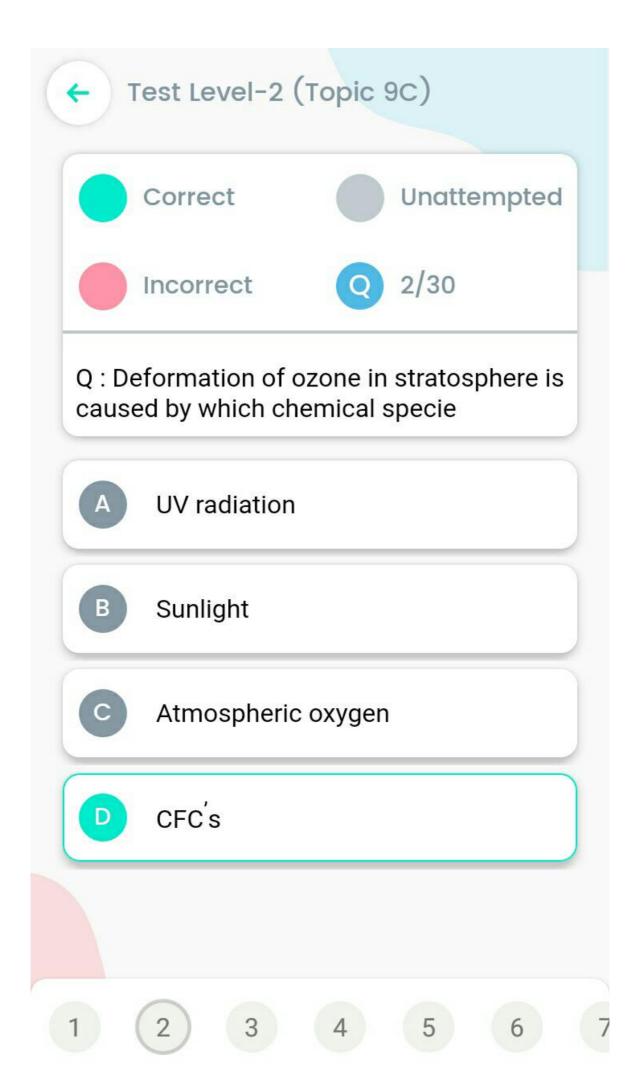


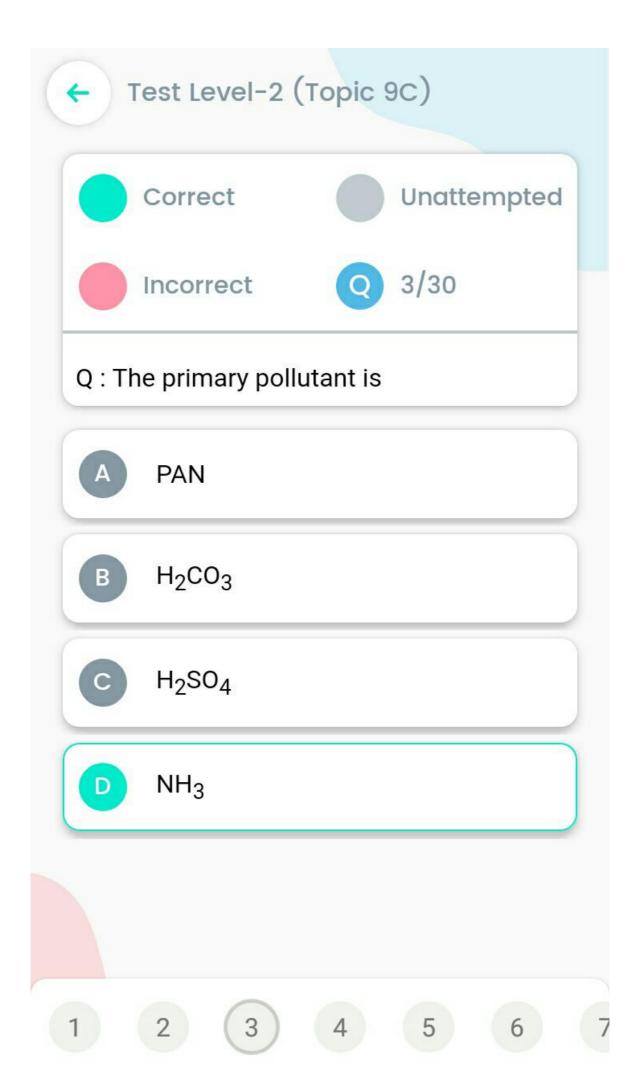
Hint

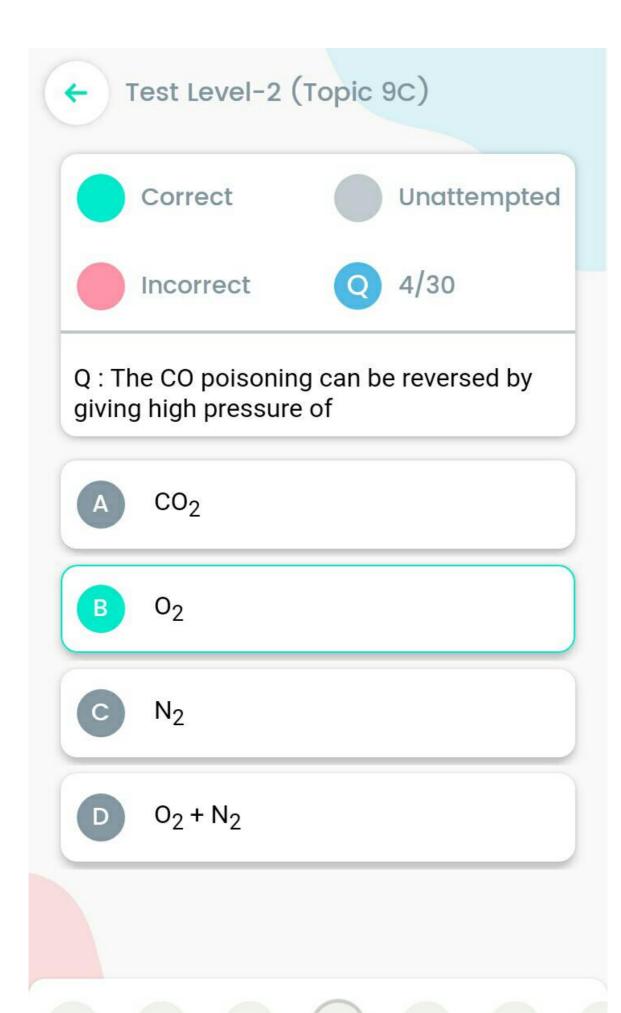
Q: The metal leached by acid rain of soil and causes suffocation in gills of fishes

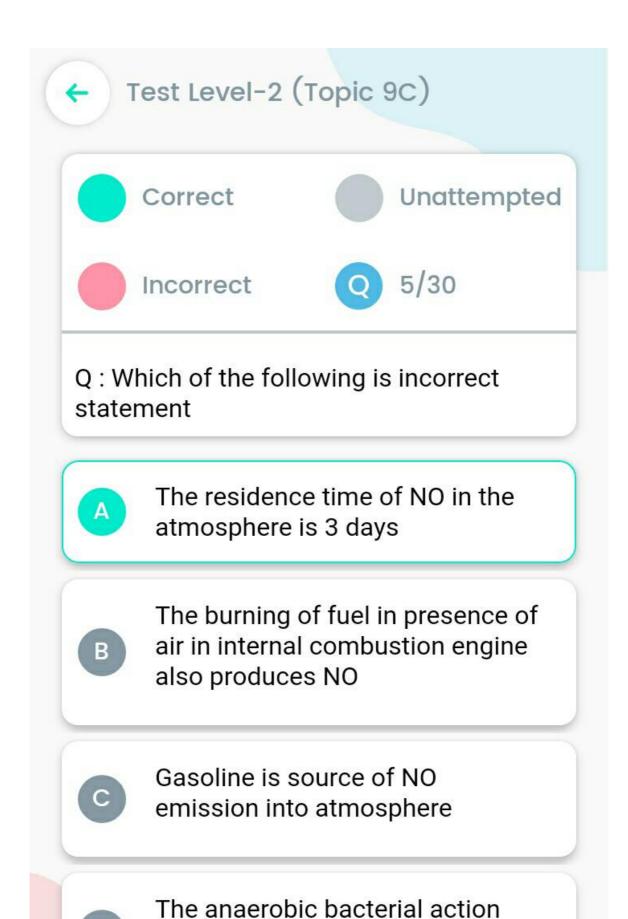
- Calcium
- Magnesium
- Aluminium
- Nickel





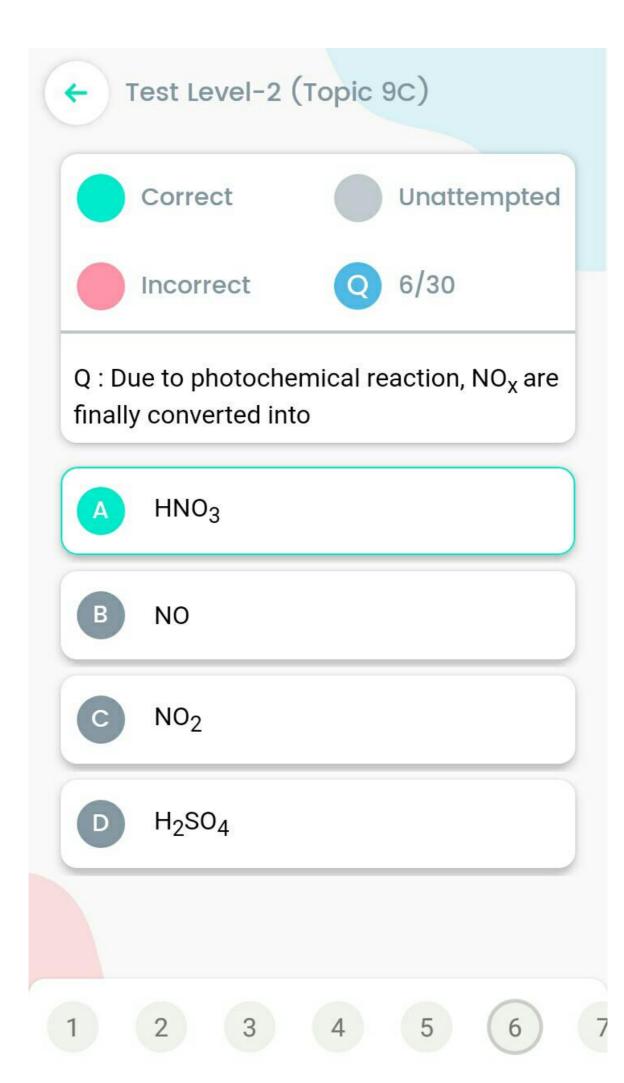


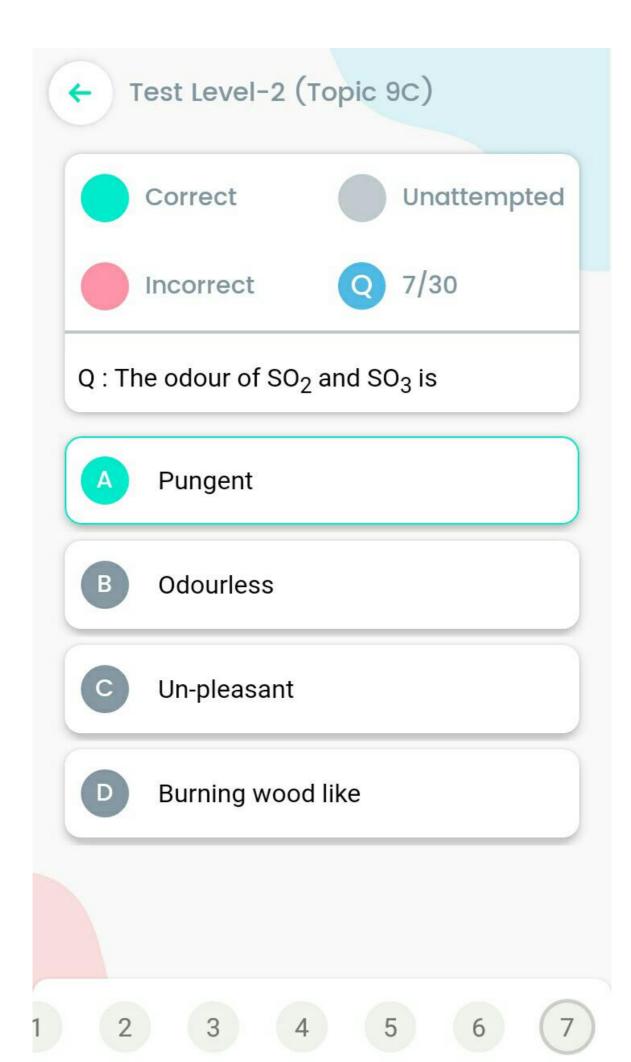




1 2 3 4 5 6 7

produces NO_x mainly NO





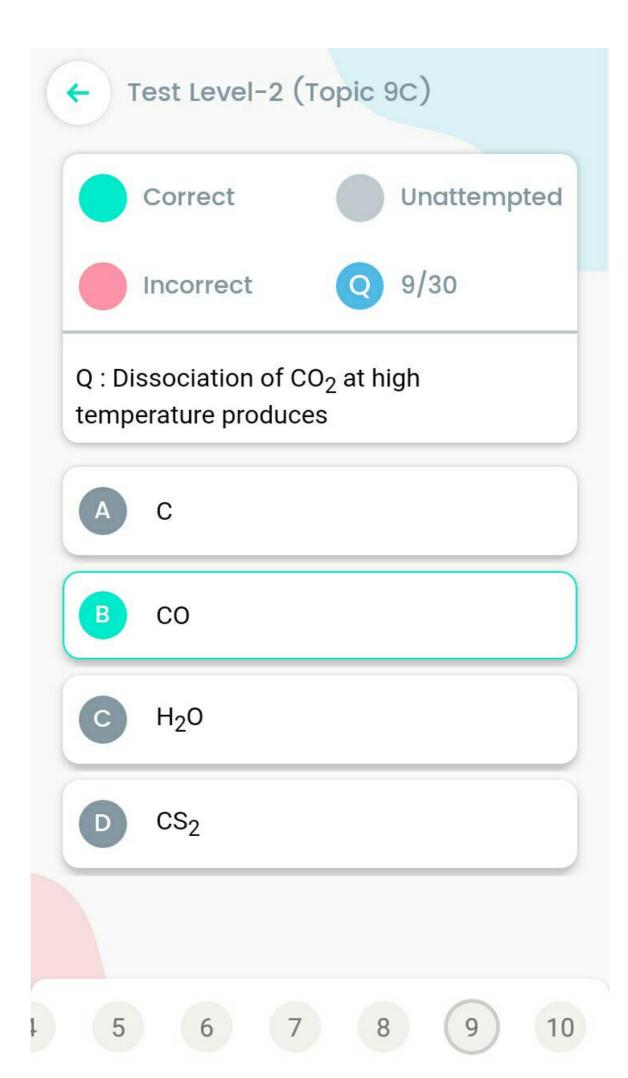


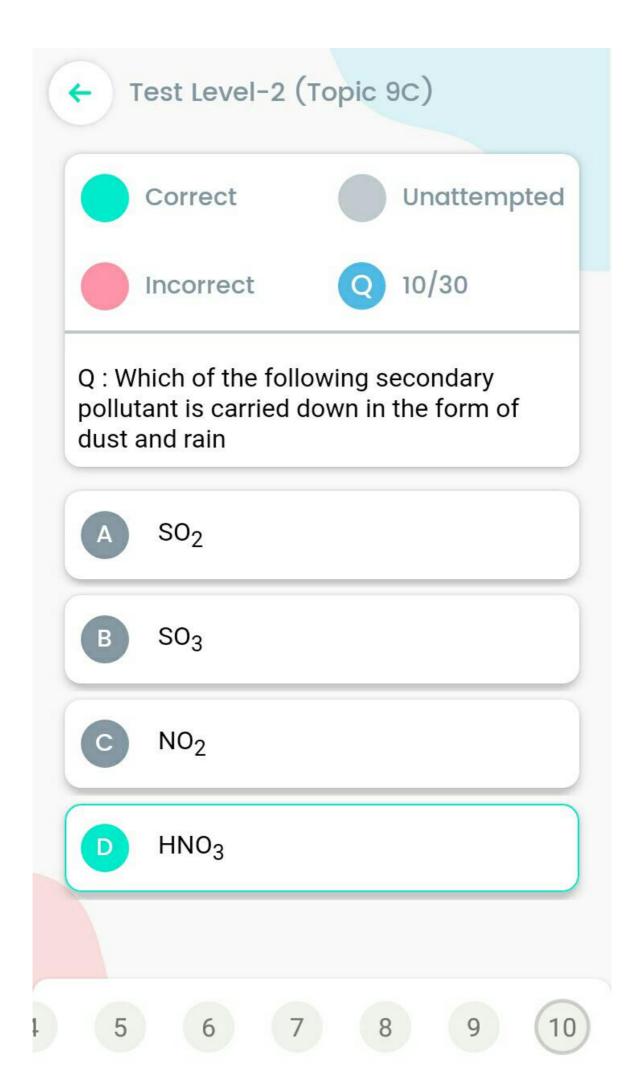
- Correct Unattempted
- Incorrect Q 8/30

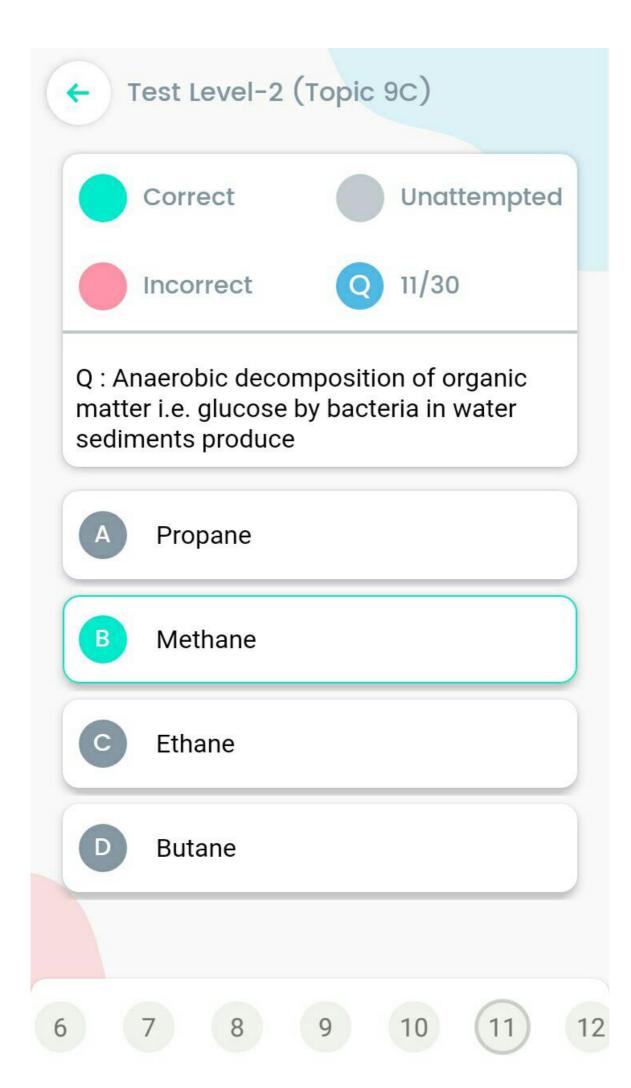
Q : The environmental conditions required for the reaction given is/are

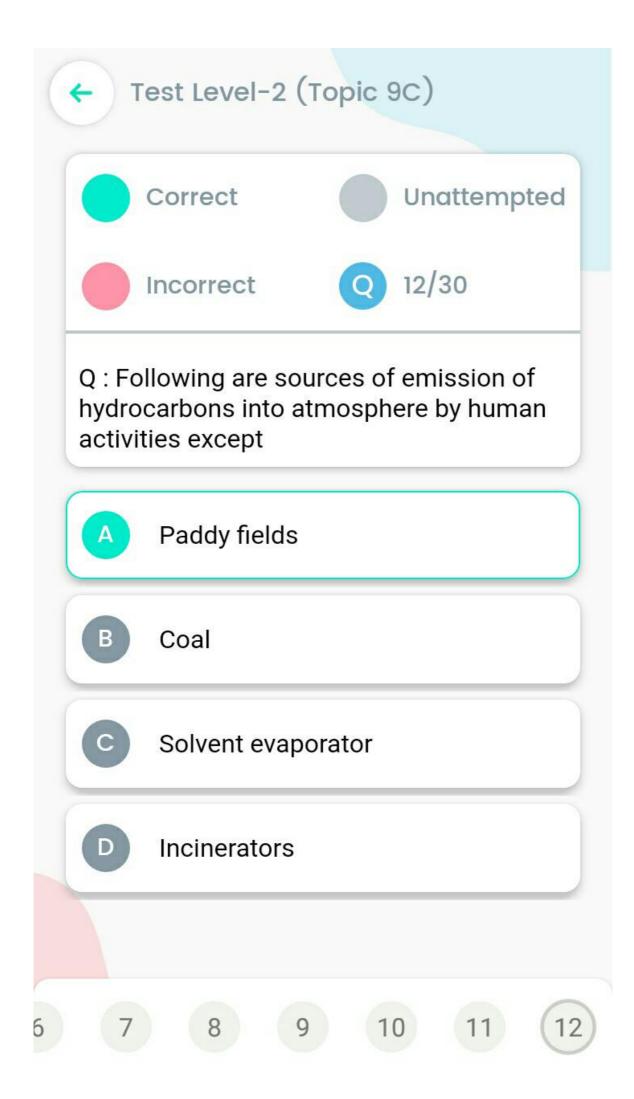
$$SO_2 + \frac{1}{2}O_2 + H_2O \xrightarrow{?} H_2SO_2$$

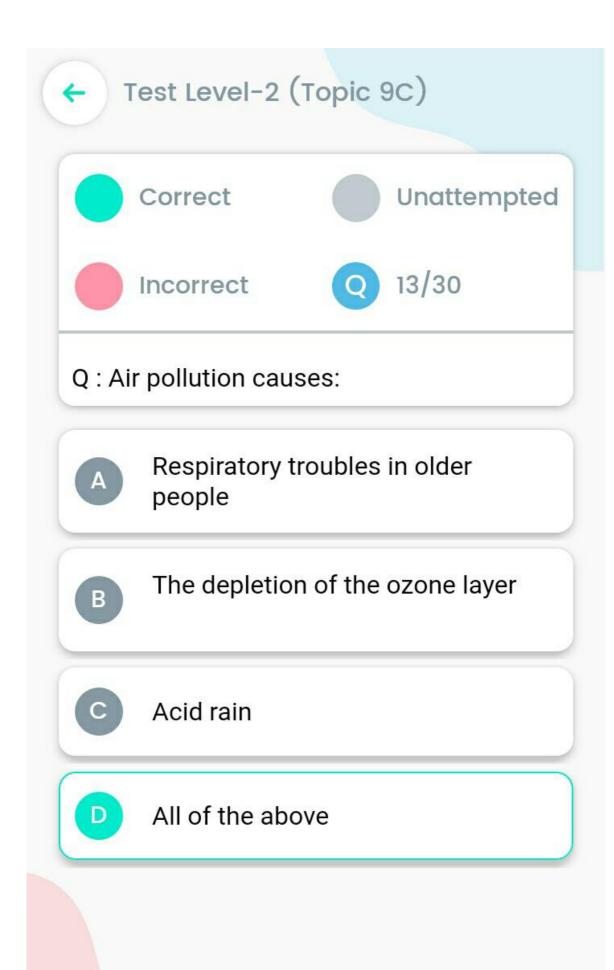
- A Hydrocarbon, aqueous
- B Hydrocarbon, smoke, metal oxides
- Hydrocarbon only
- High temperature, low pressure

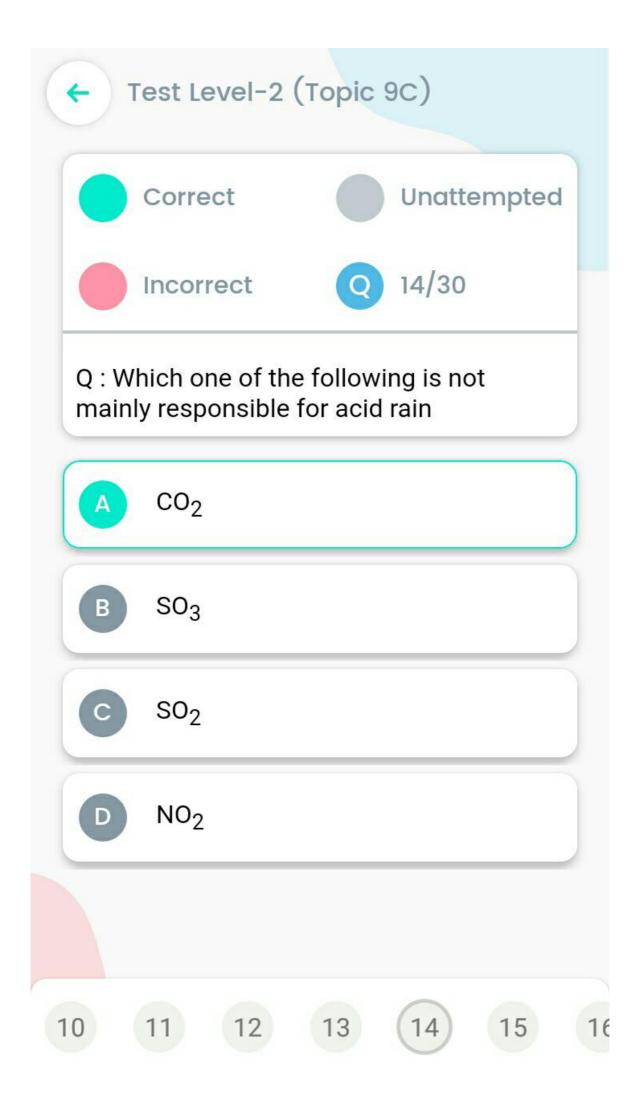


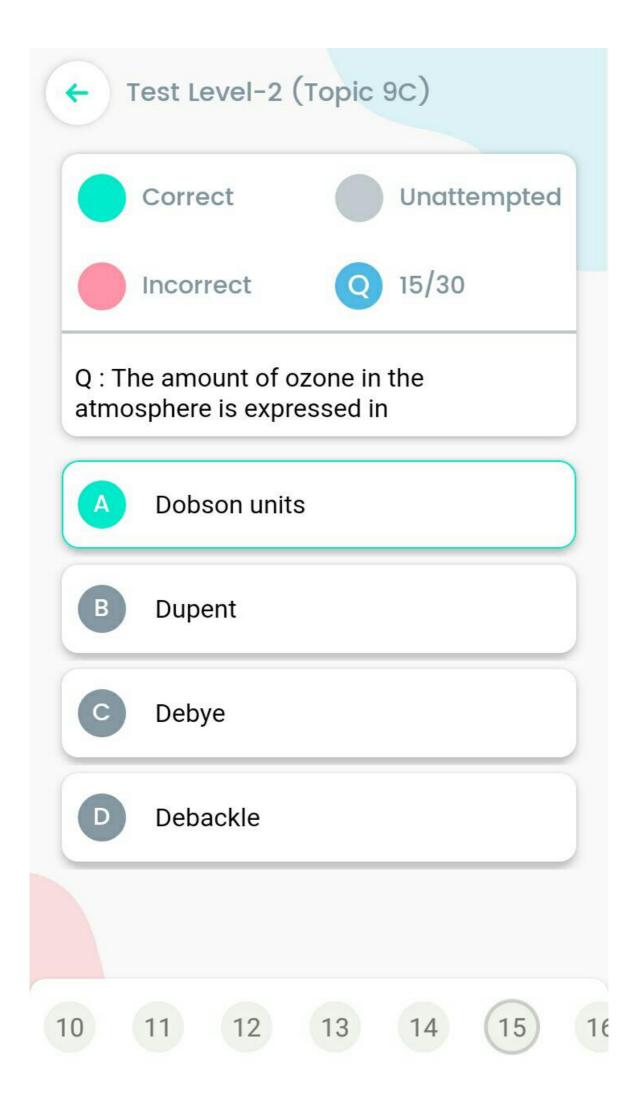


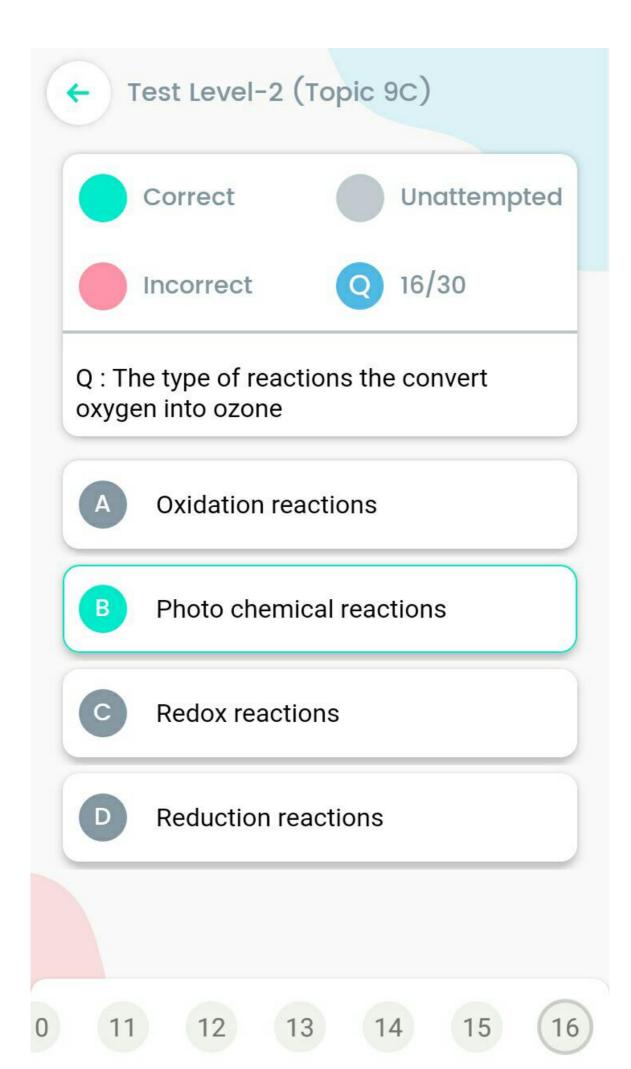


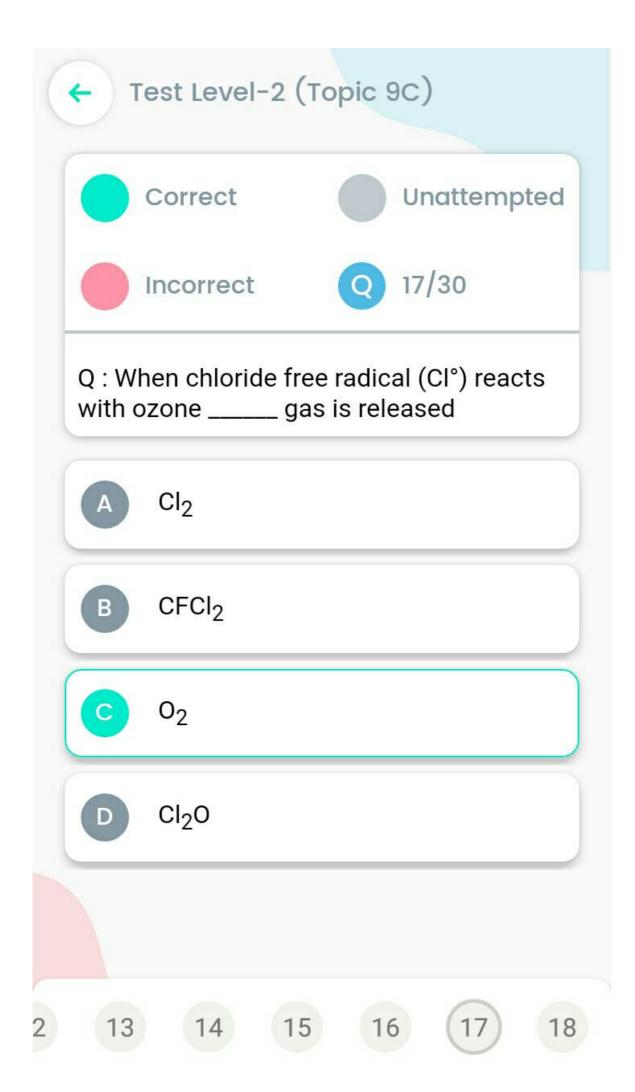


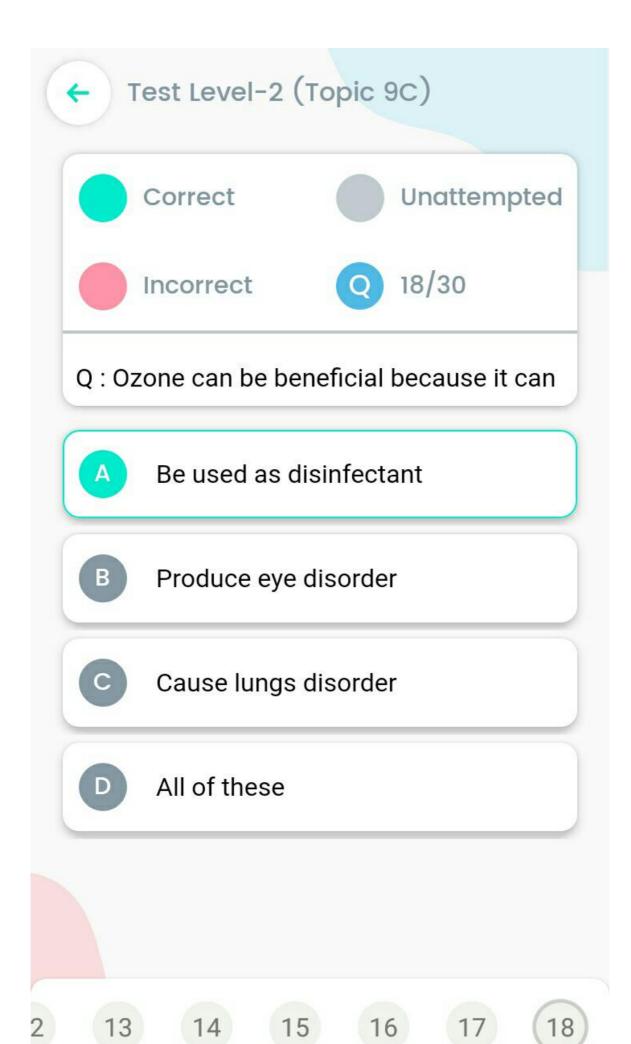


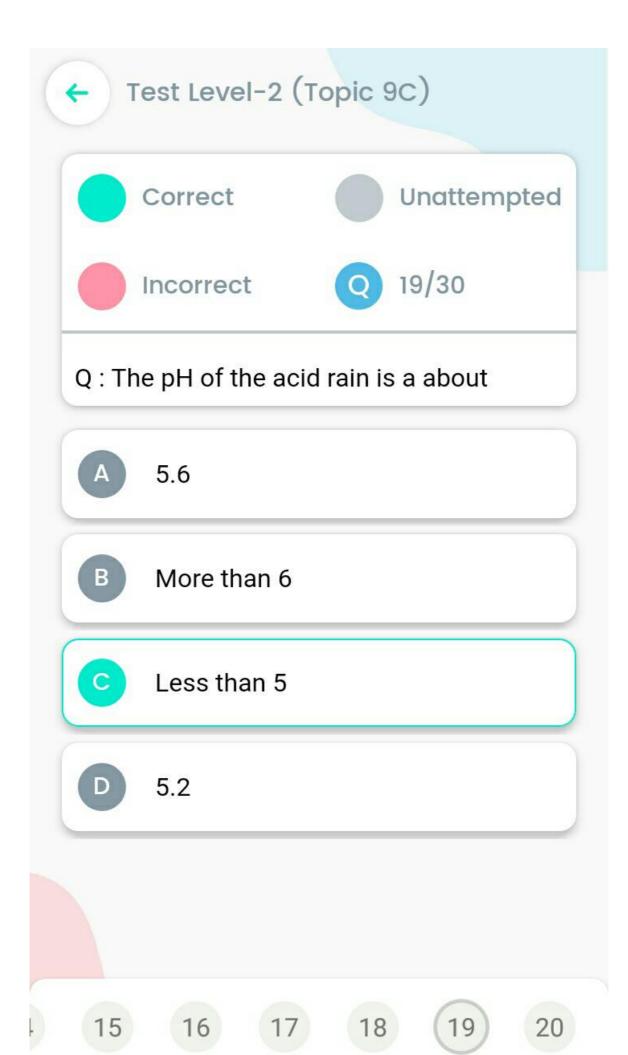


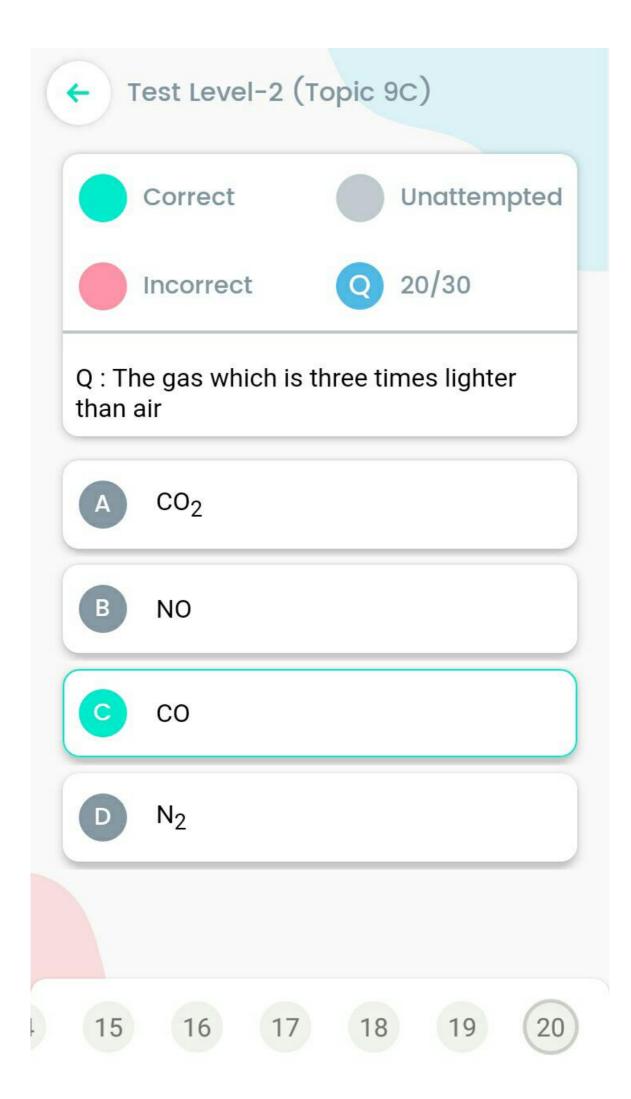


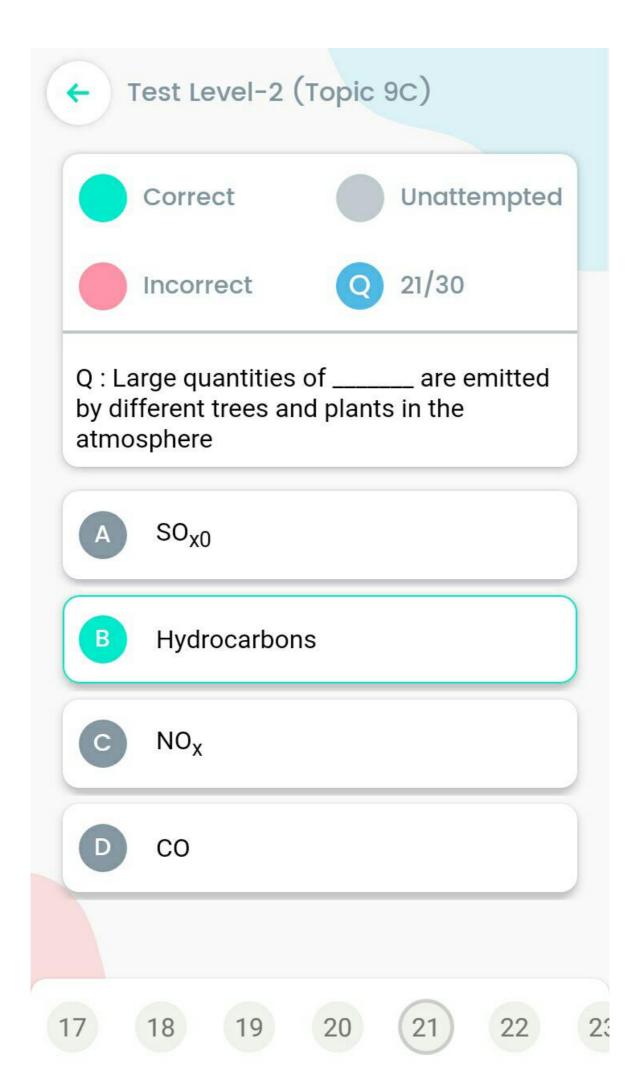


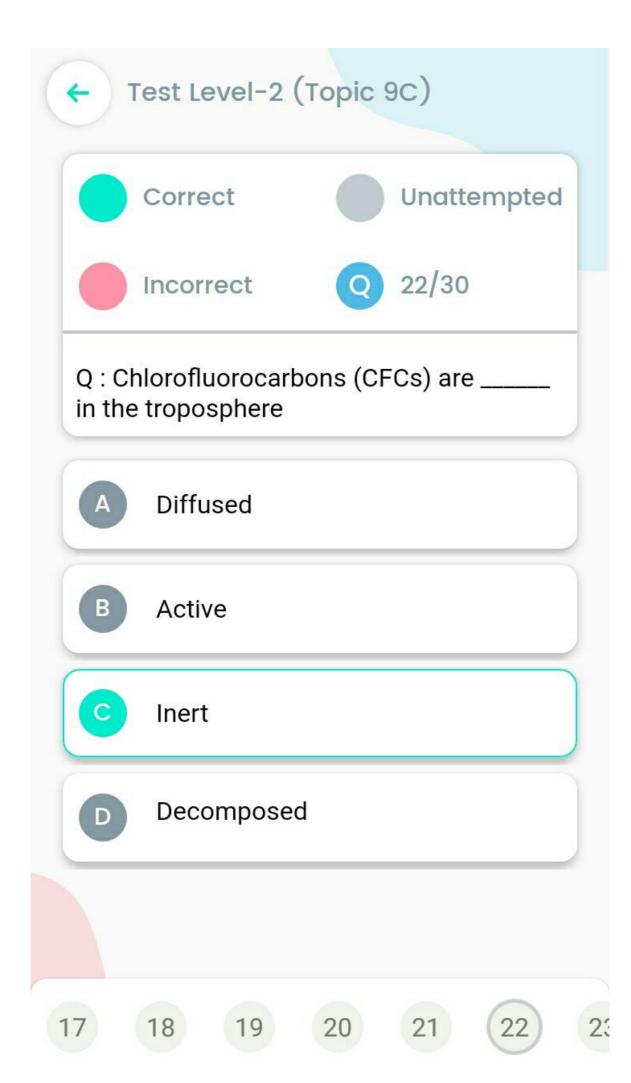


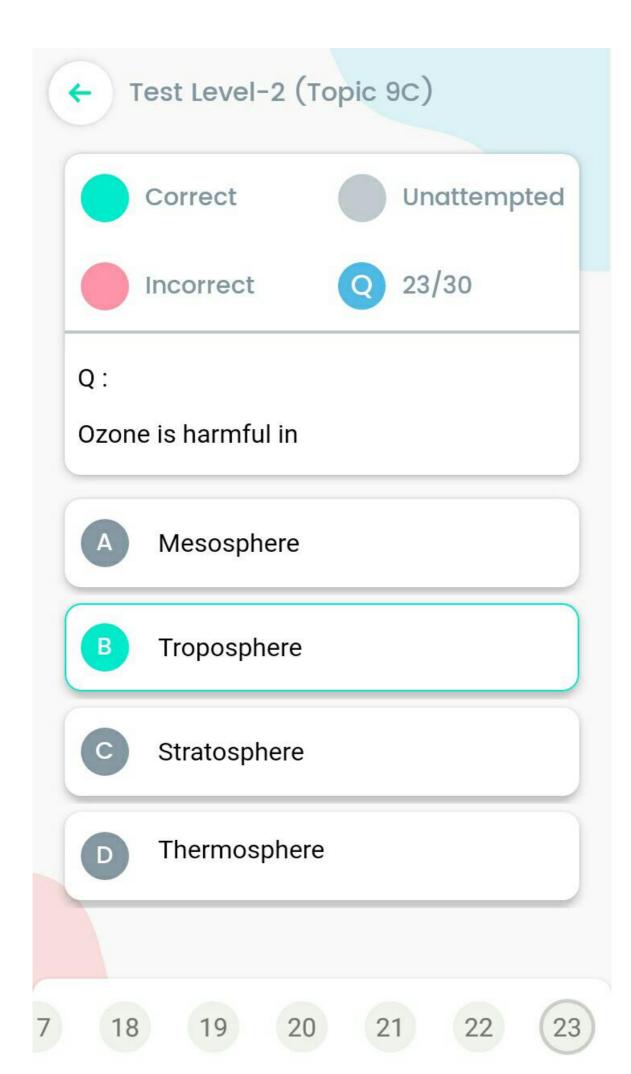


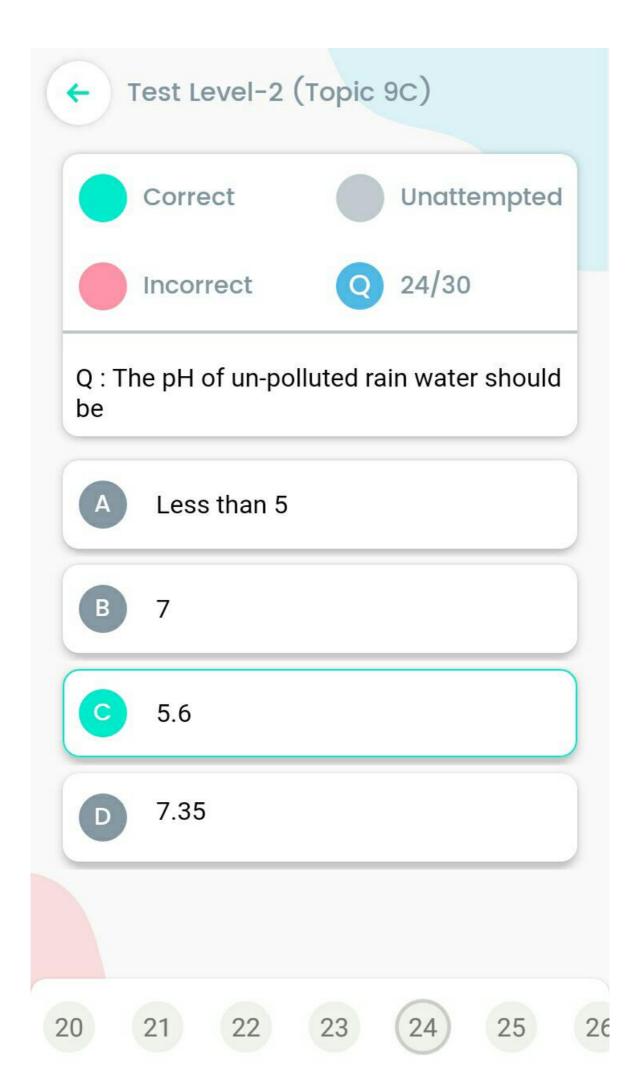


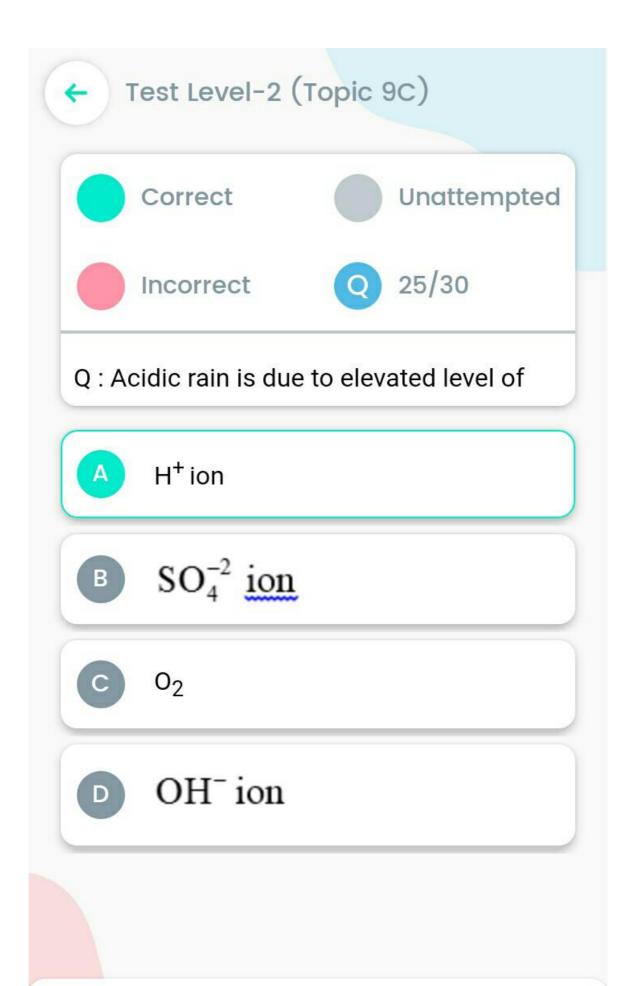




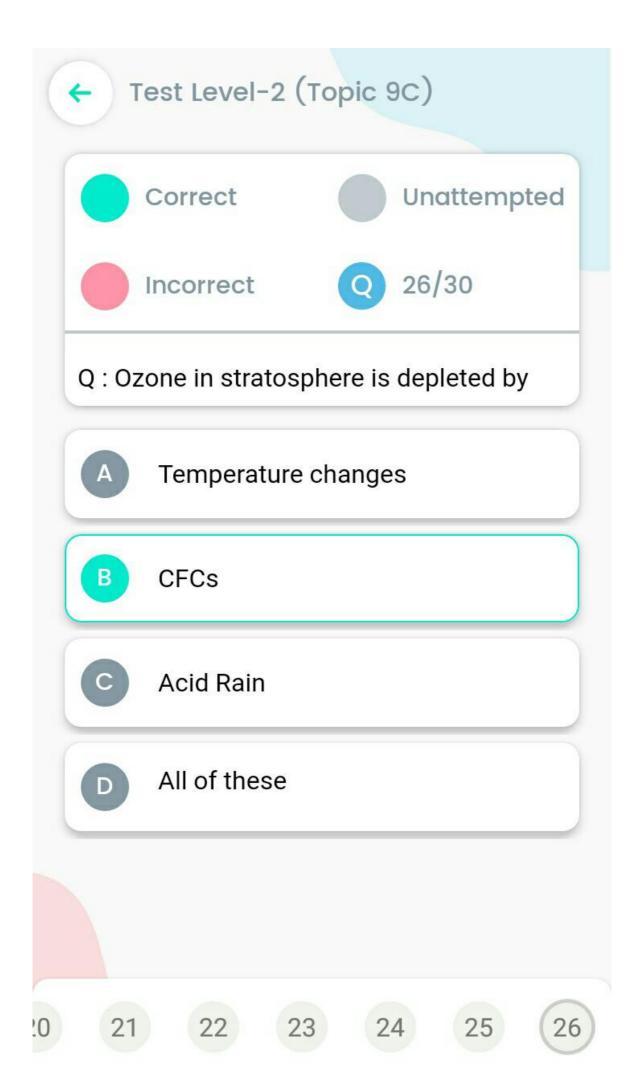


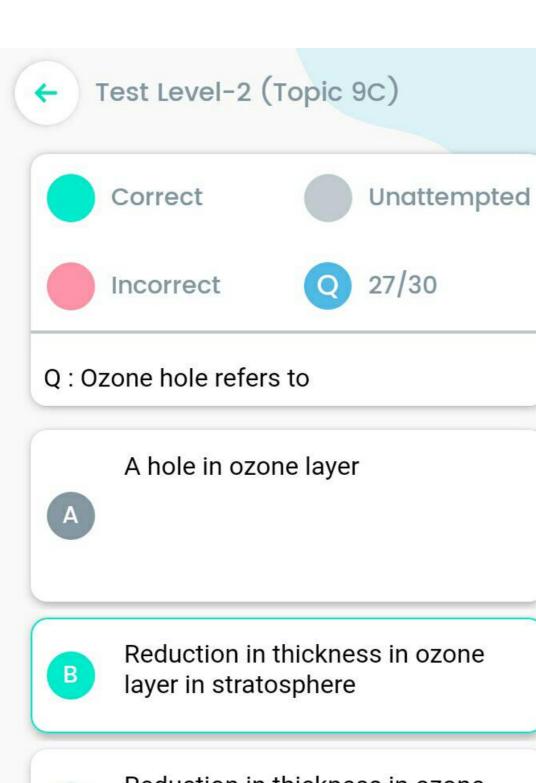






20 21 22 23 24 (25) 26





- Reduction in thickness in ozone layer in troposphere
- Increased concentration of ozone

