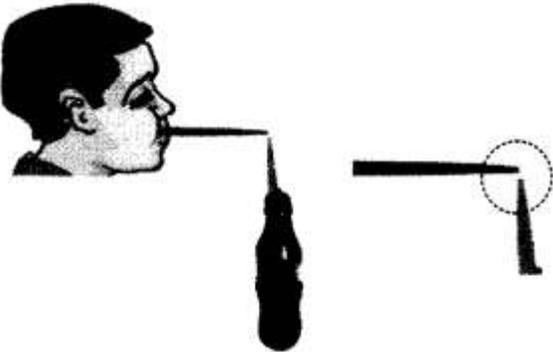


# Quiz – Wind, Storms & Cyclones

---

## MULTIPLE CHOICE QUESTIONS

1. A fire alarm usually detects smoke in case of fire. Where such an alarm should be placed in a room?  
a) Near the door      b) On the floor      c) On any wall      d) On the ceiling
2. In figure showing a child blowing air with a straw near the opening of another straw which has its other end in a soft drink bottle. It was observed that the level of the soft drink in the straw rises up as soon as air is blown over its open end. Which one of the following best explains the reason for rise in level of the drink?



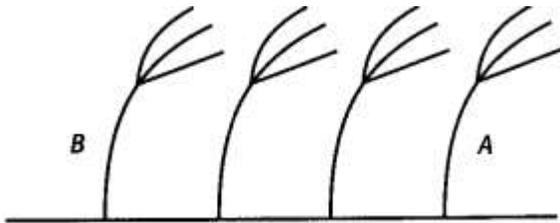
- a) Blowing of air decreases pressure over the opening of the straw.
  - b) The straw of the soft drink bottle collapses when air is blown over its open end.
  - c) Blowing of air warms up the air inside the straw.
  - d) Blowing of air increases the pressure on the surface of soft drink in the bottle.
3. A curtain is hanging at the entrance of a room. A long corridor runs at right angles to the door, which is parallel to the curtain. If a strong wind blows along the corridor, the curtain will  
a) Get pushed inside the room  
b) Get pushed outside the room  
c) Get collected towards one end / swirled  
d) Remain unaffected
  4. Air moves  
a) From region of low pressure to high pressure.  
b) From region of high pressure to low pressure.  
c) Between regions of equal pressure.  
d) All of these
  5. Which of the following sentences is correct?  
a) Increased wind speed is accompanied by increased wind pressure.  
b) Increased wind speed will not affect the air pressure.  
c) Reduced wind speed is accompanied by reduced air pressure.  
d) Increased wind speed is accompanied by reduced air pressure.

6. The winds from the ocean carry water and bring rain. These winds are referred to as
  - a) Monsoon
  - b) cyclone
  - c) typhoon
  - d) thunderstorm
7. The swift movements of the falling water droplets along with rising air create lightning and sound. We call this event
  - a) Monsoon
  - b) cyclone
  - c) typhoon
  - d) thunderstorm
8. Which of the following statements about air is correct?
  - a) Air moves from high pressure to low pressure
  - b) Air moves from low pressure to high pressure
  - c) Heating leads to reduction in air pressure
  - d) Both A and B
9. In case of thunderstorm, we should
  - a) Take shelter in a metal shed
  - b) Take shelter in a building
  - c) Lie on the ground
  - d) Use an umbrella with a metal end.
10. The factor that affects the development of a cyclone is
  - a) Temperature
  - b) wind speed
  - c) level of humidity
  - d) all of these
11. A cyclone is referred to as a typhoon in
  - a) Japan
  - b) Philippines
  - c) America
  - d) Both A and B
12. Development and movement of cyclones are studied by the
  - a) Indian Postal Department
  - b) Indian Forensic Department
  - c) Indian Meteorological Department
  - d) Central Investigation Department
13. Which of these best describes a tornado?
  - a) strong thunderstorm
  - b) the eye of a cyclone
  - c) rotating funnel of high speed wind 10-15 km across
  - d) rotating funnel of high speed wind 10-200 m across

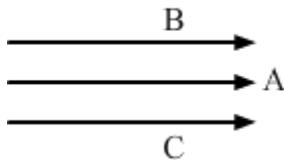
### **QUESTION ANSWER**

1. Why is Chandigarh unlikely to be affected by a cyclone?
2. Name the ocean which is mainly responsible to bring rain bearing monsoon winds to Kerala coast in June every year?
3. State whether the following statements are True or False:
  - a) If wind flows from land to the ocean, then it is daytime.
  - b) A very high pressure system, with very high speed wind surrounding it forms a cyclone.
  - c) The coast line of India is not vulnerable to cyclones.
  - d) Warm air is lighter than cool air.

4. To expel hot air out of the kitchen, A has an exhaust fan fitted on the window of her kitchen and B has a similar exhaust fan fitted on the wall near the ceiling of her kitchen. Which of the exhaust fan will expel the hot air more effectively? Explain why?
5. A flat in Mumbai with a balcony facing the sea has some clothes hung on a clothes line in the balcony. Towards which direction the clothes will be blown in the afternoon? Explain.
6. A diagrammatic representation of trees in the afternoon along a sea coast. State on which side is the sea; A or B? Give reasons for your choice.



7. A flat mounted on a flag post near the sea coast flutters in the direction of sea. At what time of the day does this happen at midnight or in the afternoon?
8. Ravi kept an empty bottle made of plastic inside a refrigerator. After few hours, when she opened the refrigerator she found the bottle had collapsed. Explain the possible reason.
9. When strong / high speed wind blows, an umbrella held upright at times gets upturned. Explain the reason.
10. Why do houses have ventilators near the ceilings?
11. You may have seen holes made in huge hoardings. Why are these necessary?
12. News item in a newspaper: "A cyclone that started in the desert of Rajasthan hits Delhi today." Is the news item correct? Give reasons.
13. Suppose the earth rotated from east to west, instead of from west to east. How would this affect the pattern of wind circulation on the earth?
14. The figure shows wind blowing at high speed in a narrow region. Will the pressure be high or low at A, B and C?



# Answer

---

## MULTIPLE CHOICE QUESTIONS

1. d
2. a
3. b
4. b
5. d
6. a
7. d
8. a
9. b
10. d
11. d
12. c
13. c
14. d

## QUESTION ANSWER

1. Chandigarh is unlikely to be affected by a cyclone as it is not near to the sea/ocean.
2. Indian Ocean is mainly responsible to bring rain bearing monsoon winds to Kerala coast in June every year.
3. a) False                      b) False                      c) False                      d) True
4. B's exhaust fan will expel the hot air more effectively because hot air rises up, so being at a greater height than A's exhaust fan, volume of air that will reach to B's exhaust fan will be more.
5. The clothes will be blown towards the house due to sea breeze blowing towards the land.
6. Sea is on B side as in the afternoon, wind is blowing from sea to the land known as sea breeze.
7. At midnight because of land breeze.
8. The air inside the bottle contracts due to low temperature, hence the bottle collapses due to the outside pressure.
9. Umbrella gets upturned when strong/ high speed wind blows because high speed wind passing over the umbrella creates low pressure.
10. In the room when air **is** hot its density decrease and rises up. So **ventilators** help to remove out hot air from the room and make its temperature same. So, **ventilators are made close to the ceiling.**
11. The holes in huge hoardings are necessary to avoid any pressure difference between the two sides of the hoardings. In the absence of such holes, the pressure difference will tear the hoardings.
12. Given news item is not correct because cyclones are formed only in warm, wet conditions usually overseas.

13. If the earth starts rotating in opposite direction, the winds in the northern hemisphere will swerve to its left and the winds in the southern hemisphere will swerve to its right.
14. The pressure at points B and C will be same and equal. However, the pressure at point A will be lower than that at points B and C.