Question 7.Can there be a time-temperature graph as follows? Justify your answer.

(i)

(ii)

(iii)

(iv)
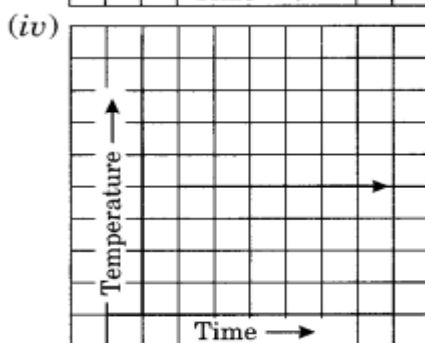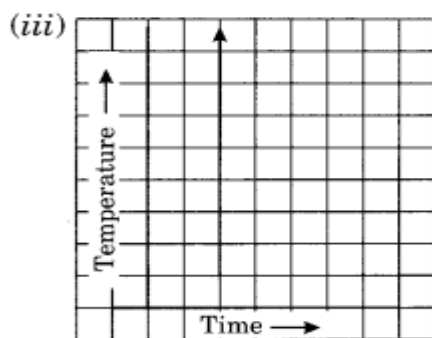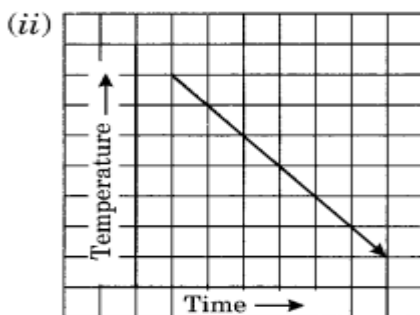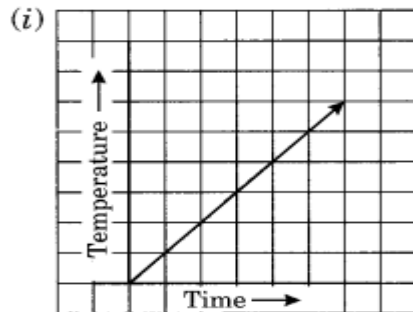
Solution:

(i) It represents a time-temperature graph where temperature increases as the time increase.

(ii) It shows a time-temperature graph where temperature decreases as the time increases.

(iii) It does not represent a time-temperature graph. Here the temperature is increasing at a constant time which is not possible.

(iv) It represents a time-temperature graph where the temperature remains constant when the time is increasing.

Q1 : The following graph shows the temperature of a patient in a hospital, recorded every hour.
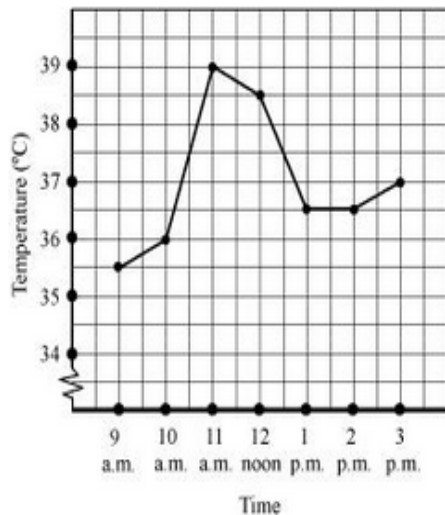
(a) What was the patient's temperature at 1 p.m.?

(b) When was the patient's temperature 38.5°C?

(c) The patient's temperature was the same two times during the period given. What were these two times?

(d) What was the temperature at 1.30 p.m? How did you arrive at your answer?

(e) During which periods did the patient's temperature show an upward trend?

Answer :

(a) At 1 p.m., the patient's temperature was 36.5°C.

(b) The patient's temperature was 38.5°C at 12 noon.

(c) The patient's temperature was same at 1 p.m. and 2 p.m.

(d) The graph between the times 1 p.m. and 2 p.m. is parallel to the x-axis. The temperature at 1 p.m. and 2 p.m. is 36.5°C. So, the temperature at 1:30 p.m. is 36.5°C.

(e) During the following periods, the patient's temperature showed an upward trend.

9 a.m. to 10 a.m., 10 a.m. to 11 a.m., 2 p.m. to 3 p.m.