



# PHYSICS

## BOOKS - U-LIKE PHYSICS (HINGLISH)

### CBSE SAMPLE QUESTION PAPER 2019 - 20 (SOLVED)

#### Section A

1. Define catenation.



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2. How does the valency of an element vary across a period ?



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3. On the basis of your understanding of the following paragraph and the related studied concepts :

Renewable energy sources such as wind energy are vital for the Indian economy, not

only from the point of view of supply, but also from the perspective of environmental and social benefits. India is the world's fifth largest wind-power producer and the largest windmill facilities in India are installed in Tamil Nadu. Muppandal is a small village of Tamil Nadu and one of the most important sites of wind - farm in the state. It uses wind from the Arabian Sea to produce renewable energy. The suitability of Muppandal as a site for wind farms stems from its geographical location as it has access to the seasonal monsoon winds.



The electrical generators used on wind turbines in sites like Muppandal, produce an output a.c. of 240 V and a frequency of 50 Hz even when the wind speed is fluctuating. A transformer may be required to increase or decrease the voltage so it is compatible with the end usage, distribution or transmission voltage, depending on the type of interconnection.

(a) State the principle behind electric generator.



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The output frequency of wind turbine is 50 Hz.

What is meant by this statement ?



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Why do you think Muppandal is at an advantageous position for this project ?



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**6.** On the basis of your understanding of the following paragraph and the related studied concepts :

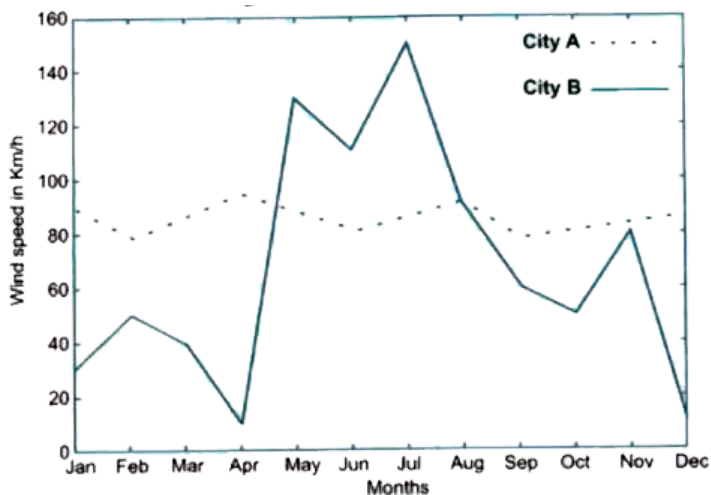
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Based on the data represented in the graph below, which of the two cities A or B would be an ideal location for establishing a wind - farm and why ?



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7. Study these tables related to blood sugar levels and answer the questions that follow :

Table A (Blood glucose chart)

**Table A (Blood glucose chart)**

	<i>Mean Blood Glucose Level (mg/dL)</i>
Doctor's advice needed	380
	350
	315
	280
	250
Good	215
	180
Excellent	150
	115
	80
	50

**Table B (Blood Report of Patient X and Y)**

Time of Check	Blood Glucose Ranges (mg/dL)	
	Patient X	Patient Y
Before breakfast (Fasting)	< 100	70 – 130
Before lunch, supper and snack	< 110	70 – 130
Two hours after meals	< 140	< 180
Bedtime	< 120	90 – 15

Refer to Table B showing the blood report of the levels of glucose of patients X and Y. Infer

the disease which can be diagnosed from the given data.



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	<i>Mean Blood Glucose Level (mg/dL)</i>
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Bedtime	< 120	90 – 15

Identify the hormone whose level in the blood is responsible for the above disease.



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9. Study these tables related to blood sugar levels and answer the questions that follow :

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Which one of the following diets would you recommended to the affected patient ?

- A. High sugar and low fat diet.
- B. Low sugar and high protein diet.
- C. High fat and low fibre diet.
- D. Low sugar and high fibre diet.

**Answer: D**



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**10.** Study these tables related to blood sugar levels and answer the questions that follow :

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Refer to the Table A and suggest the value of the mean blood glucose level beyond which doctor's advice is necessary :

A. 180 mg/dL

B. 115 mg/dL

C. 50 mg/dL

D. 80 mg/dL

**Answer: A**



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