

Name of Student	Class	Subject	Board	Chapter
	9 th	Physics	FB	08
Date :	Objective			Teacher Remarks

Section - A

Q. No.1:- Circle the correct option. Each part carries one mark.

01	Water freezes at:						
a	32°F	b	0°F	c	-273K	d	0 K
02	Normal human body temperature is:						
a	15°C	b	37°C	c	37°F	d	98.6°C
03	Mercury is used as thermometric material because it has:						
a	Uniform thermal expansion	b	Low freezing point	c	Small heat capacity	d	All the above properties
04	Which of the following material has large specific heat:						
a	Copper	b	Ice	c	Water	d	Mercury
05	Which of the following material has large value of temperature coefficient of linear expansion:						
a	Aluminum	b	Gold	c	Brass	d	Steel
06	What will be the value of β for a solid for which α has a value of $2 \times 10^{-5} \text{K}^{-1}$?						
a	$2 \times 10^{-5} \text{K}^{-1}$	b	$6 \times 10^{-5} \text{K}^{-1}$	c	$8 \times 10^{-15} \text{K}^{-1}$	d	$2 \times 10^{-5} \text{K}^{-1}$
07	A large water reservoir keeps the temperature of nearby land moderate due to:						
a	Low temperature of water	b	Low specific heat of water	c	Less absorption of heat	d	Large specific heat of water
08	Which of the following affects evaporation:						
a	Temperature	b	Surface area of the liquid	c	Wind	d	All of the above
09	Temperature of water in a beaker is 50°C. What is its value in Fahrenheit scale?						
a	122°F	b	123°F	c	121°F	d	124°F
10	How much heat is required to increase the temperature of 0.5kg of water from 10°C to 65°C?						
a	115600 J	b	115700 J	c	115500 J	d	115800 J
11	Specific heat of iron is _____:						
a	$470 \text{Jkg}^{-1}\text{K}^{-1}$	b	$480 \text{Jkg}^{-1}\text{K}^{-1}$	c	$475 \text{Jkg}^{-1}\text{K}^{-1}$	d	$485 \text{Jkg}^{-1}\text{K}^{-1}$
12	Heat of vaporization of water is _____:						
a	2280kJkg^{-1}	b	2260kJkg^{-1}	c	2270kJkg^{-1}	d	2250kJkg^{-1}

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Section - B

Q. No.1:- Attempt any eleven parts. The answer of each part should not exceed 3 to 4 lines. (11×3=33).

01	How specific heat differs from heat capacity?	02	Define thermal expansion.
03	Why gaps are left in railway tracks?	04	Why gaps are left in bridges with rollers?
05	Why does heat flow from hot body to cold body?	06	How does heating affect the motion of molecules of a gas?
07	Define the terms heat and temperature.	08	What is meant by internal energy of a body?
09	What is thermometer?	10	Define and explain latent heat of fusion.
11	A balloon contains 1.2m³ air at 15°C. Find its volume at 40°C. Thermal coefficient of volume expansion of air is $3.67 \times 10^{-3} \text{K}^{-1}$.	12	How much ice will melt by 50000 J of heat? Latent heat of fusion of ice= 336000 Jkg⁻¹.
13		14	

Q. No.4:- Attempt any TWO questions. All questions carry equal marks: (2×10=20)

Q. No.1 :-(a).Highlight the different scale of temperature from one scale to another (Fahrenheit, Celsius and Kelvin scales)

(b).Normal human body temperature is 98.6°F. Convert it into Celsius scale and Kelvin scale.

Q. No2:- (a).Explain the volumetric thermal expansion.

(b).Calculate the increase in the length of an aluminum bar 2 m long when heated from 00C to 200C. If the thermal coefficient of linear expansion of aluminum is $2.5 \times 10^{-5} \text{K}^{-1}$

Q. No.3:- (a).What is meant by evaporation? On what factors the evaporation of liquid depends? Explain how cooling is produced by evaporation?

(b).How much heat is required to change 100 g of water at 100°C into steam? Heat of vaporization of water is $2.26 \times 10^6 \text{Jkg}^{-1}$.

