



Video Solution on Website:-

<https://physicsaholics.com/home/courseDetails/54>

Video Solution on YouTube:-

<https://youtu.be/ywVgjA2pU4c>

- Q 1. The freezing point on a thermometer is marked as -20° and the boiling point as 130° . A temperature of human body (34°C) on this thermometer will be read as:
(a) 31° (b) 51°
(c) 20° (d) none of these
- Q 2. In a temperature scale called Z, the boiling point of water is 65Z and freezing point is -14Z . Then the temperature $T = -98\text{Z}$ corresponds on the Fahrenheit scale to
(a) -191F (b) -159F
(c) 79F (d) none of these
- Q 3. If a thermometer reads freezing point of water as 20°C and boiling point 150°C . How much thermometer reads when the actual temperature is 60°C ?
(a) 98°C (b) 110°C
(c) 40°C (d) 60°C
- Q 4. A centigrade and a Fahrenheit thermometers are dipped in boiling water. The water temperature is lowered until the Fahrenheit thermometer reads 140°C . The fall in temperature registered by centigrade thermometer is
(a) 80°C (b) 40°C
(c) 50°C (d) 90°C
- Q 5. 100 gm of ice at 0°C is mixed with 100 g of water at 100°C . What will be the final temperature of the mixture?
(A) 10°C (B) 20°C (C) 30°C (D) 40°C
- Q 6. A lead bullet of 10g travelling at 300 m/s strikes against a block of wood and comes to rest. Assuming 50% of heat is absorbed by the bullet, the increase in its temperature is (specific heat of lead = 150 J/kg. K)
(a) 100°C (b) 125°C (c) 150°C (d) 200°C
- Q 7. Equal masses of three liquids A, B and C have temperatures 10°C , 25°C and 40°C respectively. If A and B are mixed, the mixture has a temperature of 15°C . If B and C are mixed, the mixture has a temperature of 30°C . If A and C are mixed, the mixture will have a temperature of
(a) 16°C (b) 20°C (c) 25°C (d) 29°C
- Q 8. On increasing temperature of water from freezing point to boiling point its specific heat



- (a) remains constant (b) first increases then decreases
(c) first decreases then increases (d) decreases throughout

Q 9. Three different liquids with equal masses (m), specific heat as s_A , s_B and s_C & initial temperature as T_A , T_B & T_C are kept closed in a isolated container, then -

- (a) final temperature of mixture will be $\frac{1}{3}(T_A + T_B + T_C)$ if $s_A = s_B = s_C$
(b) heat given by liquid A to liquid B & C will be $\frac{ms_A}{3}(2T_A - T_B - T_C)$ if $s_A = s_B = s_C$
(c) heat absorbed by liquid C will be $\frac{ms_C}{s_A + s_B + s_C} [s_A(T_A - T_C) + s_B(T_B - T_C)]$
(d) heat absorbed by liquid A is $\frac{ms_A}{3}(T_B + T_C - 2T_A)$ if $s_A = s_B = s_C$

Answer Key

Q.1 a	Q.2 b	Q.3 a	Q.4 b	Q.5 a
Q.6 c	Q.7 a	Q.8 c	Q.9 a,b,c,d	