General Aptitude
Quantitative Aptitude
Clocks

DPP-02

1. How many times do the hands of a clock point towards each other in a day?
(a) 18 (b) 19
(c) 22 (d) 20

2. A clock which gains 5 minutes in every two hours is set at 12.00 P.M. on a certain day. Find the time shown by the watch on the next day 11 A.M.
(a) 12 hrs 47 min 30 sec
(b) 11 hrs 57 min 30 sec
(c) 12 hrs 20 min 30 sec
(d) 12 hrs 15 min 30 sec

3. A clock which loses 10 seconds in every minute is set at 2.00 P.M. on a certain day. Find the time shown by the watch on the next day 8 P.M.
(a) 1 P.M. (b) 2 P.M.
(c) 3 P.M. (d) 4 P.M.

4. A clock which loses 50 seconds every two minutes is set at 6.00 P.M. on a certain day. What is the time shown by this watch on the next day if the current time is 3.00 P.M.?
(a) 4 A.M. (b) 9:15 A.M.
(c) 5 A.M. (d) 6:15 A.M.

5. How many times do the hands of a clock coincide in a day?
(a) 22 (b) 23
(c) 24 (d) 48

6. How many times are the hands of a clock at right angles in a day?
(a) 22 (b) 48
(c) 44 (d) 46

7. What is the angle between the hands of the clock at 2:45?
(a) $180\frac{1^\circ}{2}$ (b) $182\frac{1^\circ}{2}$
(c) $172\frac{1^\circ}{2}$ (d) $181\frac{1^\circ}{2}$

8. At 9' O clock find the angle between the hands of the clock?
(a) 270° (b) $250\frac{1^\circ}{2}$
(c) $150\frac{1^\circ}{2}$ (d) $220\frac{1^\circ}{2}$

9. At what time between 6 O' clock and 7 O' clock the hands of the clock will coincide?
(a) $30\frac{8}{11}$min (b) $32\frac{8}{11}$min
(c) $20\frac{8}{11}$min (d) $25\frac{8}{11}$min

10. At what time between 3 O' clock and 4 O' clock the hands of the clock will be at right angles?
(a) $30\frac{8}{11}$min
(b) $32\frac{8}{11}$min
(c) $20\frac{8}{11}$min
(d) $25\frac{8}{11}$min

Answer Key

1. **(c)**
2. **(b)**
3. **(c)**
4. **(d)**
5. **(a)**
6. **(c)**
7. **(c)**
8. **(a)**
9. **(b)**
10. **(b)**

Hints and Solutions

1. (c)
Pointing towards each other is 0°
∴ In a day (24 hours) = 22 times

2. (b)
Gaining 5 minutes in 2 hours
= 2.5 minutes/hour
From 12 pm to 11 A.M, number of hours = 23
∴ 23 × 2.5 = 57.5 minutes more
11 + 57.5 = 11:57:30

3. (c)
Losing 10 seconds/minute
= 10 minute/hour
From 2 PM to next day 8 PM, number of hours = 30
∴ 30 × 10 = 300 minute less
Or 5 hours less.
8 PM – 5 Hours = 3 PM

4. (d)
Losing 50 seconds in two minutes
= 25 seconds/minute
= 25 minutes/hour
From 6 PM to 3 PM, number of hours = 21
∴ 21 × 25 = 525 minutes less
Or 8 hours 45 minutes less
3 PM – 8 hours 45 minutes = 6: 15 AM

5. (a)
Coincide or 0° in a day
i.e. 24 hours = 22 times

6. (c)
Right angle or 90° in a day
i.e 24 hours = 44 times

7. (c)
$2 \rightarrow 60°$
$45 \times 5.5 \rightarrow 247.5°$
∴ 247.5 – 60 = 187.5°
Or 360° – 187.5° = 172.5°

8. (a)
$9 \rightarrow 9 \times 30 = 270°$

9. (b)
$6 \rightarrow 180°$
If minute hand covers 180°, it coincides with hour hand
$\therefore \frac{180}{5.5} = \frac{360}{11} = 32\frac{8}{11}\text{ min}$

10. (b)
As 3' O clock its already 90°
∴ After '3' minute hand has to cover 90 + 90 = 180
$\therefore \frac{180}{5.5} = \frac{360}{11} = 32\frac{8}{11}\text{ min}$