

Q.No	Answer	MARKS (1 mark each)
1.	(c) Days.	
2.	(c) Electric Multiple.	
3.	(c) CRS.	
4.	(d) 90 days.	
5.	(d) All of the above.	
6.	(a) Throughput.	
7.	(a) 40 kmph.	
8.	(a) 300	
9.	(d) Tie Bar.	
10.	(c) Jashpur.	
11.	(d) Panel operation for train movement.	
12.	(d) Guard instructs him to start.	
13.	(c) CC rake.	
14.	(a) N/BOX.	
15.	(a) To start a train in case of emergency.	
16.	(c) 12	
	<p>Solution :</p> <p>Option "C" is correct.</p> <p>Without stoppage average speed = 50 km/h</p> <p>With stoppages average speed = 40 km/h</p> <p>As we know,</p> <p>Time of rest per hour equal to the difference in average speed divided by the speed without stoppage.</p> <p>Required time = $[(50 - 40)/50] \times 60 = 12$</p> <p>So, A train stops on an average 12 minute/hr</p>	
17.	(d) 5/12	
	<p>Solution :</p> <p>Option "D" is correct.</p> <p>The average speed of a car = 600 metres/minute = 10 m/s</p> <p>$\Rightarrow$ Speed = distance/time</p> <p>$\Rightarrow$ The average speed of a sprinter = 100/9.6 m/s</p> <p>$\Rightarrow$ Difference of the average speed of car and sprinter = $(100/9.6) - 10$</p> <p>$\Rightarrow$ Difference of the average speed of car and sprinter = $40/96 = 5/12$ m/s</p> <p>$\therefore$ The car runs $(5/12)$ m/s slower than a sprinter.</p>	
18.	(c) 39.6 km	
	<p>Solution :</p> <p>Option "C" is correct.</p> <p>Let the total distance be x km</p> <p>We know time = distance/speed,</p> <p>Time taken to travel at 66 km/hour = $x/66$ hour and,</p> <p>Time taken to travel at 54 km/hour = $x/54$ hour.</p> <p>Total difference in time = 5 minutes + 3 minutes = 8 minutes or 8/60 hours.</p> <p>$\Rightarrow x/54 - x/66 = 8/60$ hours</p> <p>$\therefore x = 39.6$ km.</p> <p>$\therefore$ Total distance travelled = 39.6 km.</p>	
19.	(a) 29.7 km/hr.	
	<p>Option "A" is correct.</p> <p>Average speed = $2 \times A \times B / (A + B)$</p> <p>$\Rightarrow 2 \times 27 \times 33 / (27 + 33)$</p> <p>$\Rightarrow 1782/60$</p> <p>$\Rightarrow 29.7$ km/hr</p> <p>$\therefore$ The average speed of Aman in the whole journey is 29.7 km/hr.</p>	

20.	(b) Train 'A'	
21.	(c) Train 'B'	
22.	(c) Train 'C'	
23.	(a) Train 'D'	
24.	(a) 02:45 hrs.	
25.	(c) Approx. 4 minutes.	
26.	(c) Ask the next station to issue C.O to the trains that are coming in the opposite direction.	
27.	(a) Stop the train movement over the section and discuss with TLC for requirement of Tower Car or Diesel Loco for section clearance.	
28.	(d) 16.2 km/hr.	
	Solution : $\Rightarrow$ Distance covered on foot = $1.44/3 = 0.48$ km = 480 m $\Rightarrow$ Distance covered on bike = $1440 - 480 = 960$ m As, $\Rightarrow$ Time = distance/speed $\Rightarrow$ Total Time taken = $(480/2) + (960/12) = 240 + 80 = 320$ sec $\therefore$ Average speed = Total distance/total time = $(1.44/320) \times 3600 = 16.2$ km/hr	
29.	(b) 12 kg.	
	Solution: After selling $1/5$ th of the mixture, Amount of P type of rice remaining = $140 \times (4/5) = 112$ kg and amount of Q type of rice remaining = $35 \times (4/5) = 28$ kg Let amount of P type and Q type of rice added is '2x' and '3x' respectively. Ratio of P type of rice to Q type of rice in the final mixture- $\Rightarrow (112 + 2x) : (28 + 3x) = 3 : 1$ (Given) $\Rightarrow (112 + 2x) = (84 + 9x)$ $\Rightarrow x = 4$ Hence quantity of Q type of rice added = $3x = 3 \times 4 = 12$ kg	
30.	(d) 29	
	Solution: Let present age of Kush be K years Present age of Ram = $(K + 22)$ As per given, $2 \times (K + 4) = (K + 22 + 4)$ $2K + 8 = K + 26$ $K = 18$ years. Present age of Ram = $K + 22 = 40$ years Required average = $(40 + 18)/2 = 29$ years.	
31.	(c) 7 mtrs.	
	Solution: Length of the carpet = $((\text{Total cost})/(\text{Rate/m}))$ $= (572/3.25)\text{m} = 176$ m Area of the room = Area of the carpet $= (176 \times 60/100)\text{m}^2 = 105.6$ m ² . $\therefore$ Breadth of the room = $(\text{Area}/15) = (105.6/15)\text{m}$ $= 7.04$ meter = 7 meter (approx.)	
32.	(b) 6:5:3	
	Solution : Total investment of Ram = $(20000 + 40000) \times 12 = 60000 \times 12$ Total investment of Shyam = $(50000) \times 12$ Total investment of Rajiv = 60000×6 Ratio of investments of Ram, Shyam and Rajiv after 1 year $= (60000 \times 12) : (50000 \times 12) : (60000 \times 6)$ $= 6:5:3$	

33.	(b) Rs 30000/-	
	Solution Let amount borrowed by Raman be P. Interest is charged after every 4 months, so number of terms = $(44/4) = 11$ Rate of interest for 4 months = $(4/12) \times 15 = 5\%$ Total interest = $11 \times (5/100) \times (P) = 16500$ $P = (16500) \times (20/11) = 1500 \times 20 = \text{Rs.} 30000$	
34.	(c) Goods train that runs through Crew Changing Point without Crew Change.	
35.	(c) Working Time Table.	
36.	(b) Chief Crew Controller.	
37.	(c) Divisional Material Manager.	
38.	(a) BCN.	
39.	(d) G12	
40.	(d) No Brake Van at all in the train.	
41.	(c) 5 years.	
42.	(c) Electrical department.	
43.	(d) Details of Speed Restriction.	
44.	(c) Train Ordering.	
45.	(c) 2	
46.	(c) Both above.	
47.	(b) 58 wagons.	
48.	(a) GDR's Joint Check Memo.	
49.	(a) Switch Expansion Joint.	
50.	(a) ART and ARTME required at outstation.	
51.	(c) T/806	
52.	(c) Railway Board.	
53.	(b) Main Line.	
54.	(c) TPC with Section Controller.	
55.	(b) Isolator.	
56.	(c) Reach Stacker.	
57.	(b) Abnormality Register.	
58.	(a) 1000 mtrs.	
59.	(d) Traffic.	
60.	(b) MXA - DRZ.	
61.	(a) Bihar.	
62.	(c) Assam.	
63.	(a) Neurodegenerative disease.	
64.	(c) 100 kmph 30 years.	
65.	(d) 02	
66.	(b) 60 mm	
67.	(a) White.	
68.	(d) Booked Speed.	
69.	(a) Indicative.	
70.	(b) 15 kmph.	
71.	(c) 25 kmph	
72.	(b) Manually Operated.	
73.	(b) 78 Years.	
	Solution : Required sum = $(90 - 3 \times 4)$ years = $(90 - 12)$ years = 78 years.	
74.	(a) More no. of TOs.	
75.	(c) LC gate in the section.	
76.	(d) All of the above.	
77.	(b) Inspection of section by running train.	
78.	(a) Maharashtra.	
79.	(b) RPF.	
80.	(d) Tail Lamp.	
81.	(b) S&T department.	
82.	(b) Periodic Overhauling.	
83.	(a) T/509.	
84.	(a) 10 kmph.	

Key for the exam held for the selection of Section Controller against 25% LDC on 30.09.24 (Raipur Division)

85.	(c) Railway Board	
86.	(a) 15/10	
87.	(c) 01 Nos.	
88.	(d) P.O.M	
89.	(a) 10 day	
90.	(d) 250, 250, 10, 10	
91.	(b) 1200 metres	
92.	(c) Waving a Green Flag vertically Up & Dn	
93.	(a) 01	
94.	(a) 15 kmph	
95.	(d) 50 mm	
96.	(a) 362.232	
97.	(b) 0.27	
98.	(a) 0.11	
99.	(a) 161	
	Solution:	
	Given arithmetic sequence is:	
	177, 173, 169, 165,...	
	Here, $173 - 177 = -4$	
	$169 - 173 = -4$	
	$165 - 169 = -4$	
	So, the next term = $165 - 4 = 161$	
100.	(c) 4	
	Solution:	
	$7 - 24 \div 8 \times m + 6 = 1$	
	$7 - (24/8) \times m + 6 = 1$	
	$7 - 3 \times m + 6 = 1$	
	$13 - 3 \times m = 1$	
	$\Rightarrow 3 \times m = 13 - 1$	
	$\Rightarrow 3 \times m = 12$	
	$\Rightarrow m = 12/3$	
	$\Rightarrow m = 4$	
	Therefore, the missing number is 4.	
101.	(c) Hindi in Devnagari script.	
102.	(b) 30	
103.	(a) A Prime Minister.	
104.	(a) HRD Ministry.	
105.	(d) 10 th May, 1963	
106.	(a) Department of Official Language in the Ministry of Home Affair.	
107.	(d) 100%	
108.	(b) DRM	
109.	(b) English.	
110.	(a) Hindi, English , Regional.	