

IJ: 7753

SEC: A

QND1:

Solution:

As we know that

$$y = \frac{t + 1.47 S_{85}}{2a + (64.4 \times 0.01G)}$$

As:

$$S_{85} = 35 + 5 = 40 \text{ mph}$$

$$S_{15} = 35 - 5 = 30 \text{ mph}$$

$$y = \frac{t + 1.47 S_{85}}{2a + (64.4 \times 0.01G)} \Rightarrow \frac{2.0 + (1.47 \times 40)}{2(10) + (64.4 \times 0.01 \times 0)}$$

$$y = 4.94 \text{ s}$$

length of all red clearance.

$$S_{85} = 35 + 5 = 40 \text{ mph}$$

$$S_{15} = 35 - 5 = 30 \text{ mph}$$

1) No of pedestrians:

$$q_r = \frac{w+L}{1.47S_{15}}$$

$$q_r = \frac{35+5}{1.47 \times 30}$$

$$q_r = 1.133 \text{ sec}$$

2) Significance:

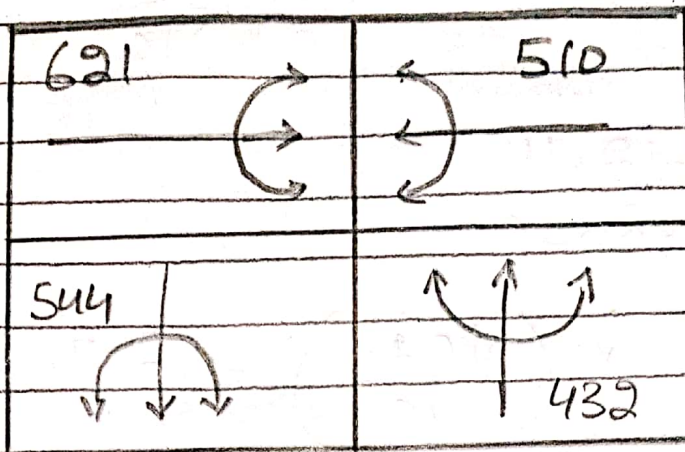
$$a_n = \frac{P+L}{1.47S_{15}}$$

$$a_n = \frac{35+5}{1.47 \times 30}$$

$$a_n = 0.90 \text{ sec}$$

3) Sum Pedisttrain:

$$ar \text{ man} = \left[\left(\frac{w+L}{1.47S_{15}} \right) + \left(\frac{P}{1.47S_{15}} \right) \right]$$



621 or 510
 $V_{CA} = 621 \text{ tro/hr}$

544 or 432

$V_{CB} = 544 \text{ tro/hr}$

$$V_C = 621 + 544 = 1165 \text{ tro/hr}$$

$$\gamma_2 \gamma_{tar} = 4.74 + 1.133 = 6.07 \text{ sec}$$

$$L_2 = \gamma - e = 6.07 - 2.0 = 4.07$$

$$t_L = L_2 + L_1 = 4.07 + 2.0 = 6.07 \text{ sec}$$

$$L = 6.07 + 6.07 = 12.14 \text{ sec}$$

Cycle Length.

$$\text{Cycles} = \frac{L}{1 - (V_C / 1615 \times P_H F \times V_C)}$$

$$= \frac{12.14}{1 - (1165 / 1615 \times 0.72 \times 0.9)}$$

$$= 94.26 \approx 95 \text{ sec}$$

$$\text{Also } g_i = g_{\text{TOT}} + \left(\frac{V_{ci}}{V_c} \right)$$

$$= 40 - 12.14$$

$$\approx 27.86 \text{ sec}$$

$$g_A = g_{\text{TOT}} \times \left(\frac{V_{CA}}{V_c} \right) = 27.86 \times \left[\frac{544}{1665} \right]$$

$$= 13.00 \text{ sec.}$$

Check:

$$14.85 + 13.00 + 12.14 = 39.99$$

is cycle length

Q No: Discuss And Draw Difference types of Sign.

1) TRAFFIC SIGN:

there are three major types of traffic science.

i) Regulatory Sign:

regulatory sign convey information concerning specific traffic regulation may relate to speed limits, lane parking and variety of other regulations.

ii) WARNING Sign:

it inform us about the upcoming hazards that they might not see. like dangerous curves, ditches, zebra crossings, bus stops etc.

iii) GUIDE Sign:

Guide signs provide information of routes, destination and services.

REGULATORY SIGN:



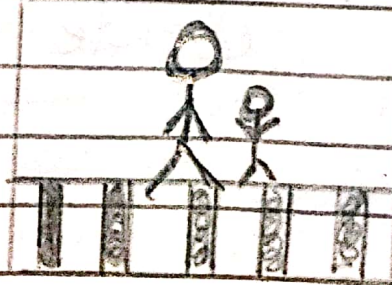
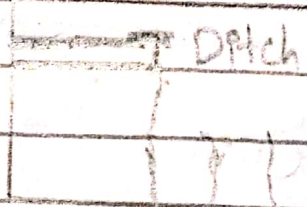
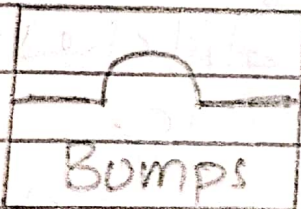
DO NOT OVERTAKE

DRIVE SLOW IN FOG

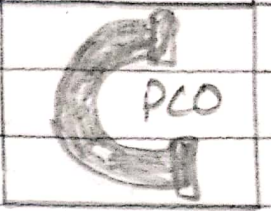
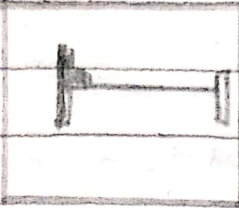
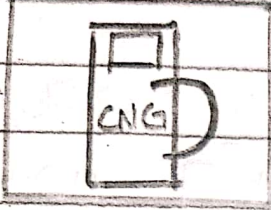
SPEED LIMIT 80KM/H.



WARNING SIGN:



GUIDE SIGN:



QNO 3TH

ROAD MARGINS:

Ans : The portion of road beyond the carriage way on the road are known as road margins.

1) SHOULDERS:

Shoulders are provided along the road edge and is intended for accommodation of stopped vehicle to serve as emergency lane. minimum width is 2.5 m recommended for 2 lane rural highway.

2) PARKING LANE:

Parking lanes are provided in rural road for side parking. parallel parking is preferred and it is safe. it minimum width should be 3.0 m.

3) BUS-BAYS:

these are provided by increasing the kerbs for bus stops. These are for the non disturbance of the traffic. They should be less than 7.5m away from the intersection.

4) SERVICE ROADS:

Service road or frontage road give access to controlled highway and will be usually isolated by dividers, and easy access to highways.

5) Cycle track:

these are provided in urban areas when volume of cycle traffic is high. Minimum width is 2.0 meter, which may increase by 1m.

6) FOOT PATH:

are exclusive right of-way for the pedestrians, especially in urban areas. These are for

the safety of pedestrians and traffic minimum width should be 1.5 m may increase with the traffic volume.

7) Guard Rail:

They are provided at the edge of the shoulder usually when the road is on an embankment. They serve to prevent the vehicle from running out of embankment. when the height of embankment increases from 3m they should be provided.