NTS GAT General Past Paper

Analytical – Exam No. 17 (PP)

Prepared by: GAT Online Tutor

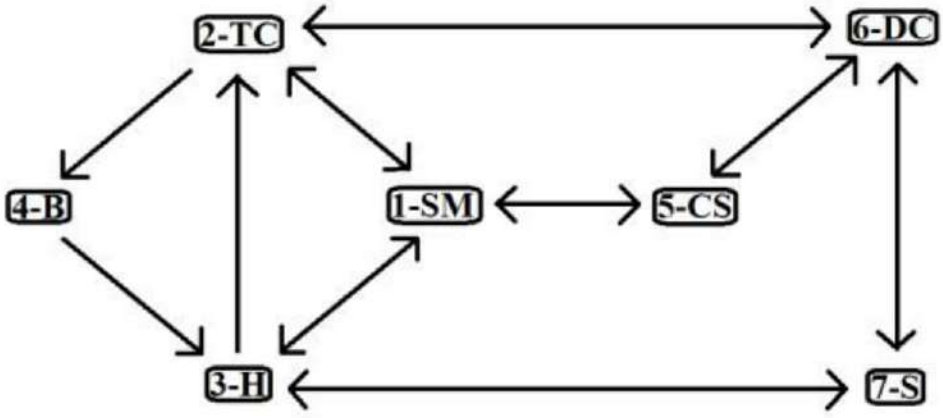
A trader uses a truck to pick up donations of unsold food and clothing from stores and to deliver them to locations where they can be distributed. He drives only along a certain network of roads.

In the network there are two-way roads connecting each of the following pairs of points: 1 with 2, 1 with 3, 1 with 5, 2 with 6, 3 with 7, 5 with 6, and 6 with 7. There are also one-way roads going from 2 to 4, from 3 to 2, and from 4, to 3.

There are no other roads in the network, and the roads in the network do not intersect. To make a trip involving pickups and deliveries, the volunteer always takes a route that for the whole trip passes through the fewest of the points 1 through 7, counting a point twice if the volunteer passes through it twice.

His home is at point 3. Donations can be picked up at a supermarket at point 1, a clothing store at point 5, and bakery point at point 4. Deliveries can be made as needed to a tutoring center at point 2, a distribution center at point 6, and a shelter at point 7.

Solution:



Questions:

1. If the trader starts at the supermarket and next is to go to the shelter, the first intermediate point his route passes through must be:

   (A) 2

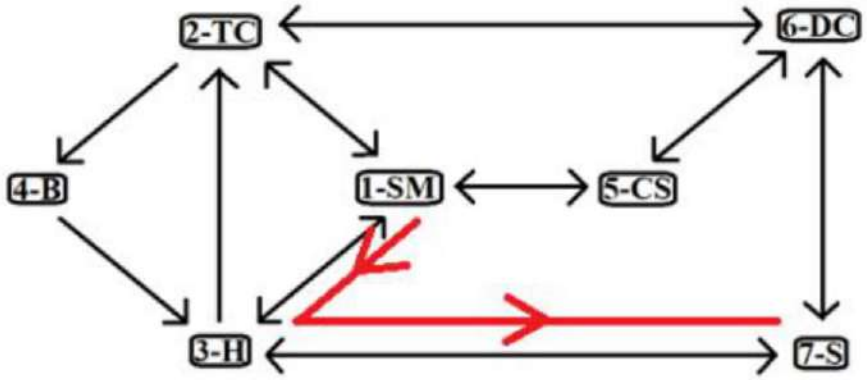
   (B) 3

   (C) 5

   (D) 6

   (E) 7

Solution:



So, option B is correct.

2. If, starting from home, trader next to is to make pickups for the shelter at the super market and the bakery (in either order), the first two intermediate points on his route, beginning with the first, must be:

   (A) 1 and 2

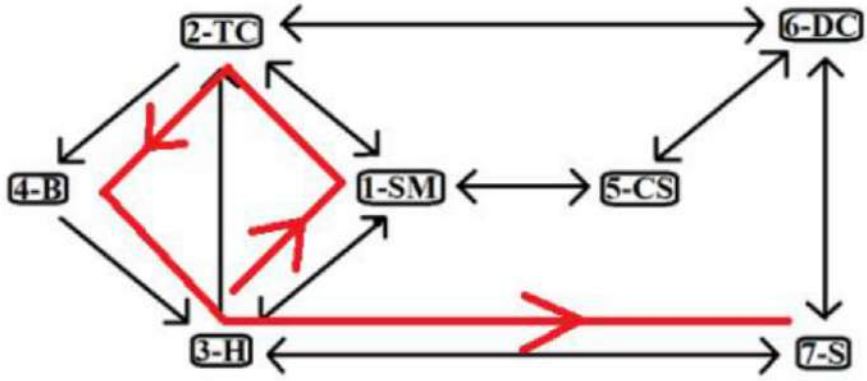
   (B) 1 and 3

   (C) 2 and 1

   (D) 2 and 4

   (E) 4 and 2

Solution:



So, option A is correct.

3. If starting from the clothing store, trader next is to pick up break at either the supermarket or the bakery (whichever stop makes his route go through the fewest of the points) and then is to go to the shelter, the first two points he reaches, after the clothing store, beginning with the first must be:

(A) 1 and 2

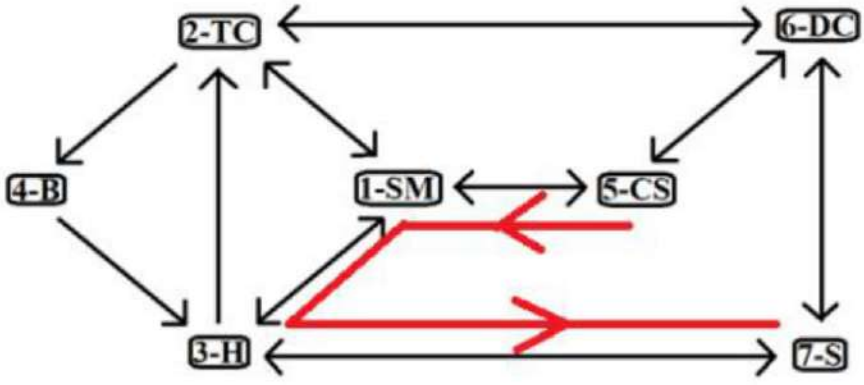
(B) 1 and 3

(C) 4 and 2

(D) 6 and 2

(E) 6 and 4

Solution:



So, option B is correct.

4. If trader is to make a trip starting at the shelter, next going to the bakery for a pick up, and then ending at the distribution center, the first two intermediate points on his route, beginning with the first can be:

   (A) 3 and 1

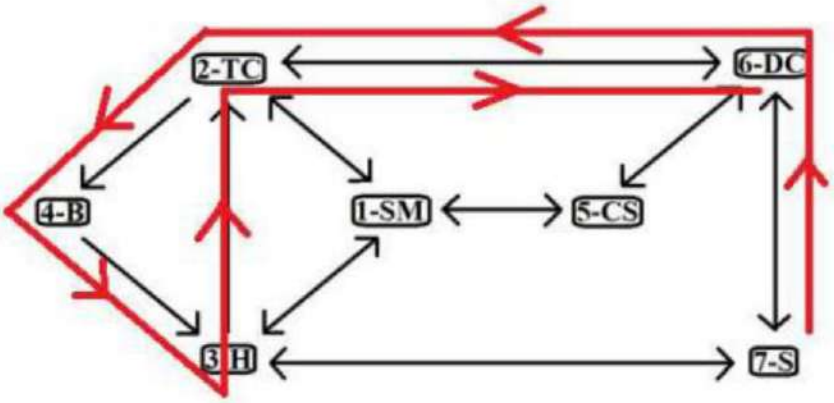
   (B) 3 and 4

   (C) 4 and 2

   (D) 6 and 2

   (E) 6 and 5

Solution:



So, option D is correct.

5. If starting from the bakery, trader next is to pick up break at either the tutoring center or the clothing store (whichever stop makes his route go through the fewest of the points) and then is to go to the distribution center, which of the following is the shortest path for his journey starting from bakery and ending at distribution center:

   (A) Home – supermarket – clothing center

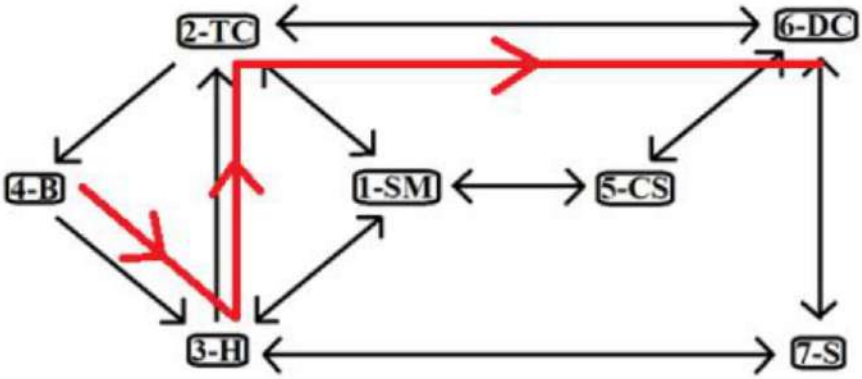
   (B) Home – shelter

   (C) Tutoring center – supermarket – clothing store

   (D) Home – clothing store

(E) Home – tutoring center

Solution:



So, option E is correct.

6. What is/are the minimum number of intermediate point(s) starting from bakery and ending at distribution center picking a parcel from supermarket:

(A) 1

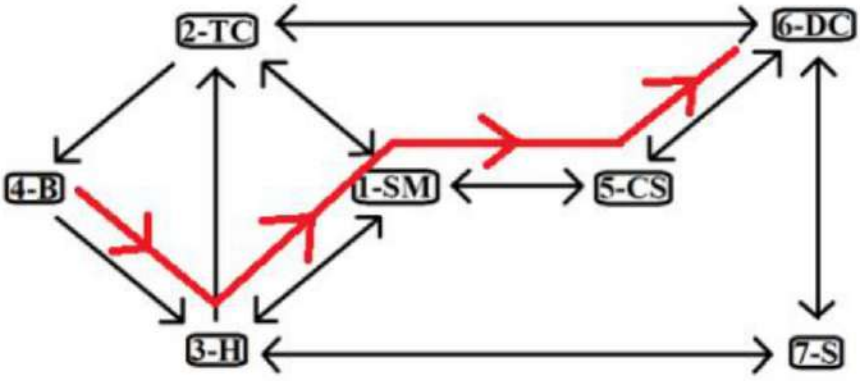
(B) 2

(C) 3

(D) 4

(E) 5

Solution:



So, option C is correct.

7. If trader is to make a trip starting at the shelter, next going to the supermarket for a pick up, and then ending at the bakery, the minimum number of intermediate point(s) is/are:

(A) 5

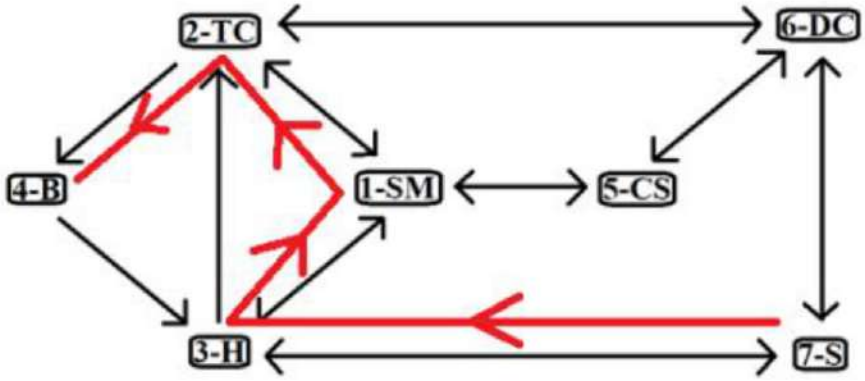
(B) 4

(C) 3

(D) 2

(E) 1

Solution:



So, option C is correct.