

NTS GAT General Past Paper

Analytical – Exam No. 19 (PP)

Prepared by: GAT Online Tutor

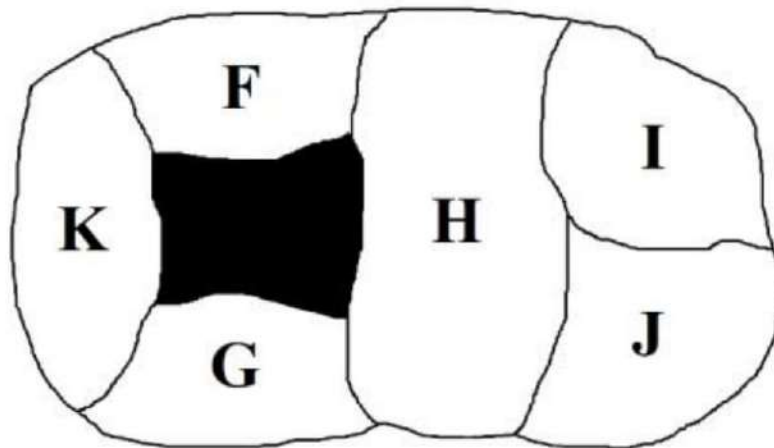
A map representing cities F, G, H, I, J, and K. is to be drawn. Neighboring cities cannot be the same color on the map. The only cities neighboring to each other are as follows:

F, G, I and J are each neighboring to H.

I is neighboring to J.

F and G are each neighboring to K.

Solution:



Questions:

1. Which of the following is a pair of cities that must be different in color from each other?
 - (A) F and I
 - (B) G and I
 - (C) G and K
 - (D) I and K
 - (E) J and K

Solution:

Apply excluding rule:

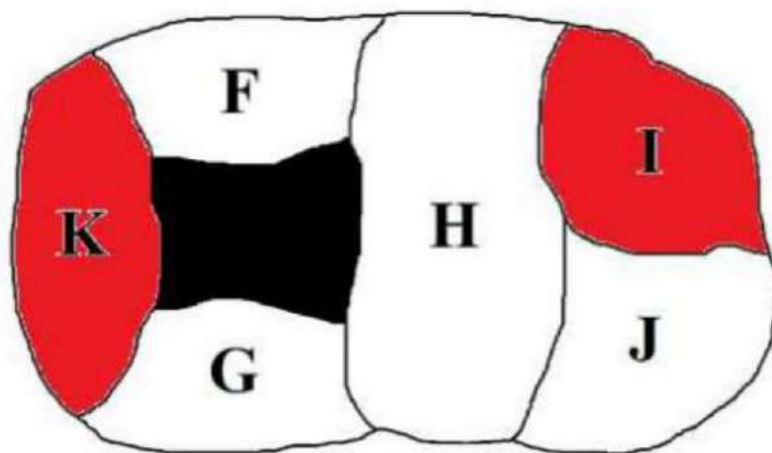
- Option (A) Can be true.
Option (B) Can be true.
Option (C) Must be true because G and K are neighboring cities so their colors must be different from each other.
Option (D) Can be true.
Option (E) Can be true.

So, option C is correct.

2. If I is the same color as K, then it must be true that:

- (A) F is the same color as J
(B) G is the same color as I
(C) I is the same color as J
(D) G is a different color from any other city
(E) H is a different color from any other city

Solution:



Apply excluding rule:

- Option (A) Can be true.

- Option (B) Wrong because K and I have same colors and K and G are neighboring cities.
- Option (C) Wrong because I and J are neighboring cities.
- Option (D) Can be true.
- Option (E) Must be true because color of city H must not match with any other city

So, option E is correct.

3. Which of the following is a pair of cities that can be the same color as each other?

- (A) F and G
- (B) G and H
- (C) H and I
- (D) H and J
- (E) I and J

Solution:

Apply excluding rule:

- Option (A) Can be true because F and G are not neighboring cities.
- Option (B) Wrong because G and H are neighboring cities.
- Option (C) Wrong because H and I are neighboring cities.
- Option (D) Wrong because H and J are neighboring cities.
- Option (E) Wrong because I and J are neighboring cities.

So, option A is correct.

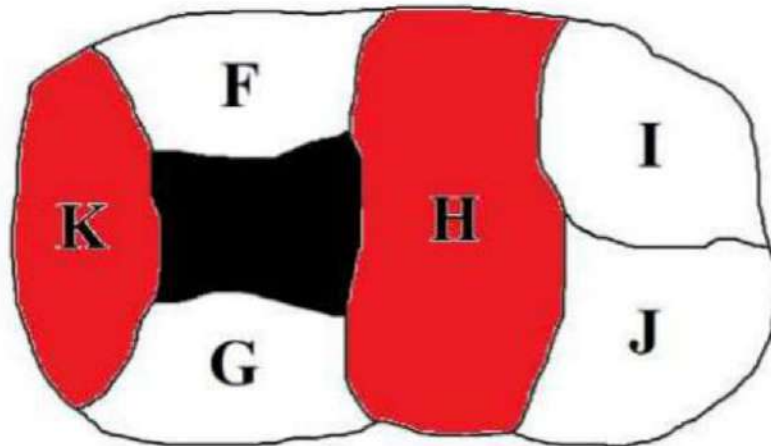
4. Which of the following cities can be the same color as H?

- (A) F
- (B) G
- (C) I
- (D) J

(E) K

Solution:

H's color can match with K because H and K are not neighboring cities.



So, option E is correct.

5. If the fewest possible colors are Used and one of the cities is the only one of a certain color that city could be:

- (A) H, but not any of the other cities
- (B) K, but not any of the other cities
- (C) F or G, but not any of the other cities
- (D) H or I or J, but not any of the other cities
- (E) H or J or K, but not any of the other cities

Solution:

Apply excluding rule:

- Option (A) Wrong because K can have the same color as that of H.
- Option (B) Wrong because H can have the same color as that of K.
- Option (C) Wrong because F can have the same color as that of I or J.
- Option (D) True because H, I and J are neighboring cities.
- Option (E) Wrong because J can have the same color as that of F.

So, option D is correct.