

Unit 10 - Week 8

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Lecture 19 Part 1- Edge Colouring

Lecture 19 Part 2- Planar Graphs & Euler's Formula

Lecture 20 Part 1 - Characterization Of Planar Graphs

Lecture 20 Part 2 - Colouring of Planar Graphs

Quiz : Week 8 Practice Assignment

Quiz : Assignment 8

Week 8 Feedback : Graph Theory

Assignment 8 Solutions

Download Videos

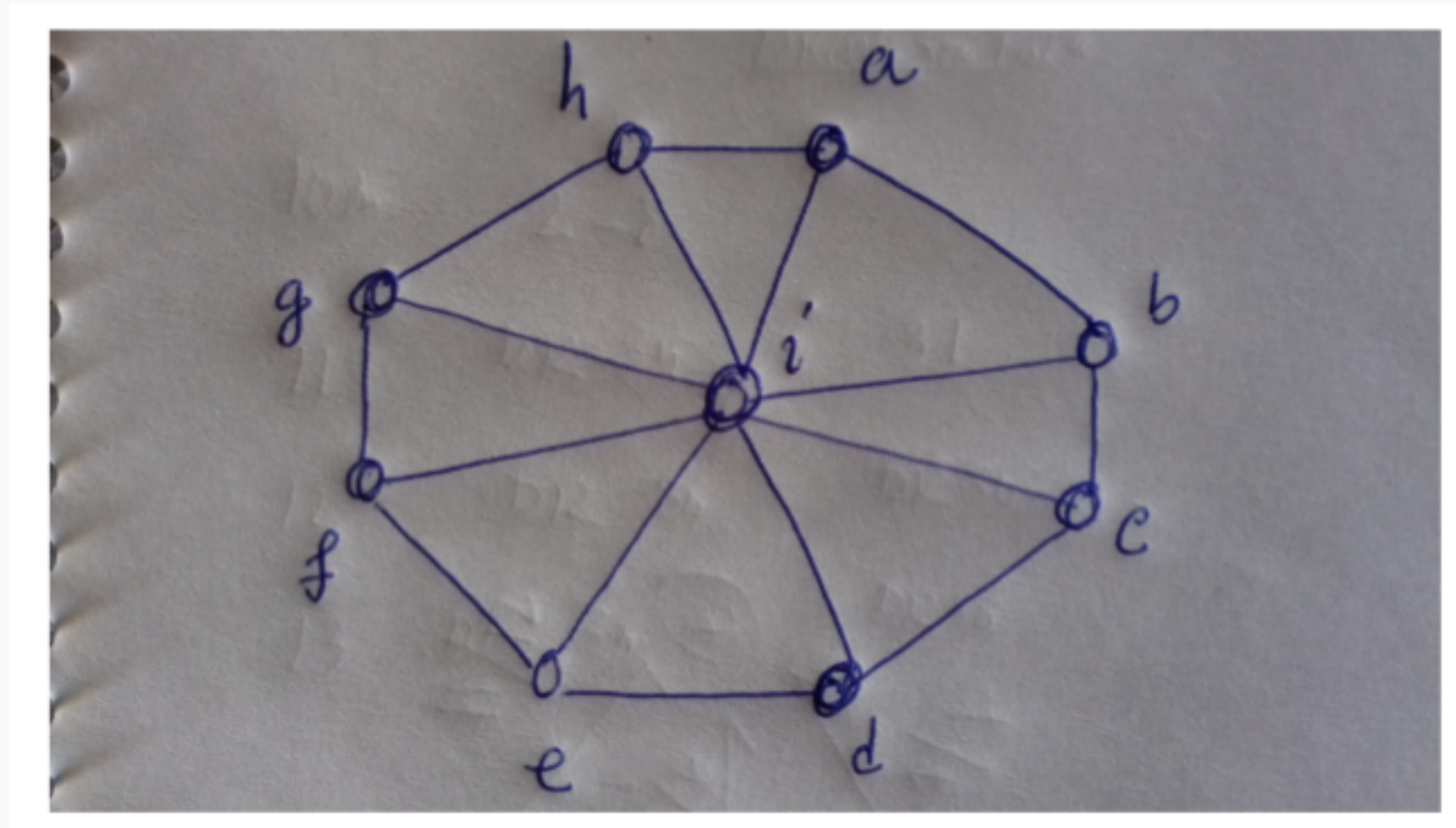
Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2020-03-25, 23:59 IST.

1) Consider the graph G shown below. The chromatic number of G is

1 point



- 2
- 3
- 4
- 5

No, the answer is incorrect.

Score: 0

Accepted Answers:

3

2) Consider the graph in Problem 1. The chromatic index of G is.

1 point

- 7
- 8
- 5
- 6

No, the answer is incorrect.

Score: 0

Accepted Answers:

8

3) If G is a cubic Hamiltonian graph, then $\chi'(G) =$

1 point

- 3
- 4
- 5
- none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

3

4) Let G be a connected planar simple graph with v vertices, e edges, and no triangles. Then e is less than or equal to

1 point

- $3v - 6$
- $2v - 4$
- $2v - 3$
- $3v - 4$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$2v - 4$

5) G has n vertices and chromatic number is k . Then G has at least $\binom{k}{2}$ edges

1 point

- True
- False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

6) If G is not regular, then $\chi(G) \leq \Delta$

1 point

- True
- False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

7) Let G be the graph whose vertices are ordered triples of zeroes and ones, and two vertices are adjacent if they differ in one coordinate. Is G planar?

1 point

- Yes
- No

No, the answer is incorrect.

Score: 0

Accepted Answers:

Yes

8) Consider the graph G in Problem 7. How many faces are there in G ?

1 point

- 5
- 6
- 7
- 8

No, the answer is incorrect.

Score: 0

Accepted Answers:

6