**BÀI TẬP LÝ THUYẾT**

**Bài 1:** Thực hiện điếm bậc các đỉnh tại ví dụ 5.1, 5.2, 5.3, 5.6

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Đỉnh | Bậc (vdu 5.1) | Bậc (vdu 5.2) | Bậc (vdu 5.3) | Bậc (vdu 5.6) |
| A | 3 | 5 | 5 | 3 |
| B | 4 | 4 | 6 | 2 |
| C | 4 | 4 | 4 | 1 |
| D | 4 | 5 | 4 | 1 |
| E | 2 | 2 | 4 | 1 |
| F | 5 | 6 | 3 | 1 |
| G | 2 |  |  |  |

**Bài 2:** Cho biết ma trận kề của đồ thị tại ví dụ 5.1, 5.6, 5.7, 5.11

5.1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F | G |
| A | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| B | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| C | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| D | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| E | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| F | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| G | 0 | 0 | 0 | 1 | 0 | 1 | 0 |

5.6

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F |
| A | 0 | 1 | 1 | 1 | 0 | 0 |
| B | 0 | 0 | 1 | 0 | 1 | 0 |
| C | 0 | 0 | 0 | 0 | 1 | 0 |
| D | 0 | 0 | 0 | 0 | 1 | 0 |
| E | 0 | 0 | 0 | 0 | 0 | 1 |
| F | 0 | 1 | 0 | 0 | 0 | 0 |

5.7

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F | G |
| A | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| B | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| C | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| D | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| E | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| F | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| G | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

5.11

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 16 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 11 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Bài 3:** Cho biết danh sách kề của đồ thị tại ví dụ 5.1, 5.7, 5.8, 5.11

5.1

First[0]: A -> B -> C -> D -> NULL.

First[1]: B -> A -> C -> E -> E -> NULL.

First[2]: C -> A -> B -> D -> F -> NULL.

First[3]: D -> A -> C -> F -> G -> NULL.

First[4]: E -> B -> F -> NULL.

First[5]: F -> B -> C -> D -> E -> G -> NULL.

First[6]: G -> D -> F -> NULL.

5.7

First[0]: a -> c -> d -> NULL.

First[1]: b -> d -> e -> NULL.

First[2]: c -> a -> f -> NULL.

First[3]: d -> a -> b -> e -> f -> NULL.

First[4]: e -> b -> d -> NULL.

First[5]: f -> a -> c -> d -> NULL.

First[6]: g -> NULL.

5.8

Slide bài giảng có sẵn.

5.11

First[0]: 1 -> 2 -> 3 -> 4 -> NULL.

First[1]: 2 -> 1 -> 7 -> NULL.

First[2]: 3 -> 1 -> 6 -> NULL.

First[3]: 4 -> 1 -> 5 -> NULL.

First[4]: 5 -> 4 -> 10 -> 11 -> NULL.

First[5]: 6 -> 3 -> NULL.

First[6]: 7 -> 2 -> 8 -> 9 -> NULL.

First[7]: 8 -> 7 -> 13 -> 14 -> NULL.

First[8]: 9 -> 7 -> NULL.

First[9]: 10 -> 5 -> 12 -> NULL.

First[10]: 11 -> 5 -> NULL.

First[11]: 12 -> 10 -> NULL.

First[12]: 13 -> 8 -> NULL.

First[13]: 14 -> 8 -> NULL.