

- None of these

Question No: 21 (Marks: 1) - Please choose one

The method of loop invariants is used to prove correctness of a loop with respect to certain pre and post-conditions.

- **True (Page 203)**
- False
- None of these

Question No: 22 (Marks: 1) - Please choose one

The greatest common divisor of 27 and 72 is

- 27
- **9**
- 1
- None of these

Solution:

1.Divide 72 by 27:

This gives $72 = 27 \cdot 2 + 18$

2.Divide 27 by 18:

This gives $27 = 18 \cdot 1 + 9$

3.Divide 18 by 9:

This gives $18 = 9 \cdot 2 + 0$

Hence greatest common divisor $(72, 27) = 9$.

Question No: 23 (Marks: 1) - Please choose one

If a tree has 8 vertices then it has

- 6 edges
- **7 edges**
- 9 edges

Question No: 24 (Marks: 1) - Please choose one

Complete graph is planar if

- $n = 4$
- $n > 4$
- **$n \leq 4$ (Page 315)**

Question No: 25 (Marks: 1) - Please choose one

The given graph is