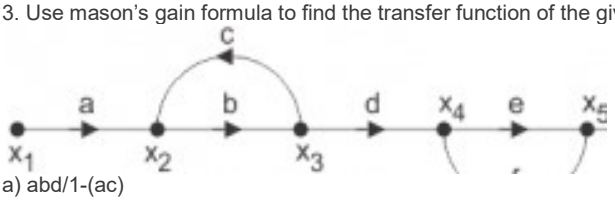
1. A signal flow graph is the graphical representation of the relationships between the variables of set linear algebraic equations.
a) True
b) False
View Answer

Answer: a

2. A node having only outgoing branches.
a) Input node
b) Output node
c) Incoming node
d) Outgoing node
View Answer

Answer: a

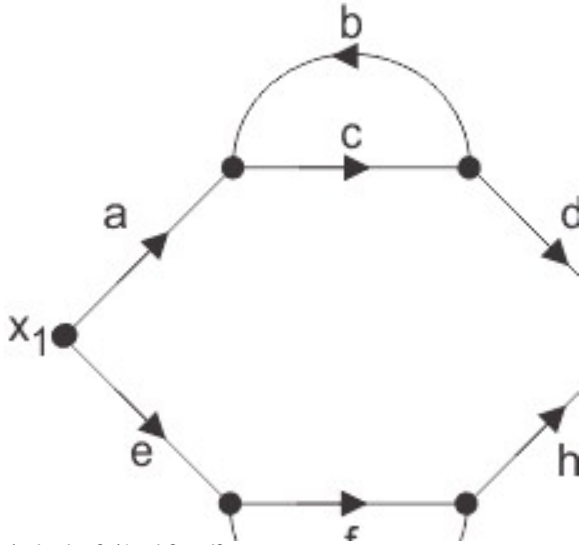
3. Use mason's gain formula to find the transfer function of the given signal flow graph:



a) abd/1-(ac)
b) abdeg/1-(bc+ef)+bcef
c) abd/1-(bc+ef)+bcef
d) adcdef/1-(bc+ef)+bcef
View Answer

Answer: b

4. Use mason's gain formula to find the transfer function of the following signal flow graph:



a) abcd+efg/1-cd-fg-cdfg
b) acdfg+bcefg/1-cd-fg-cdfg
c) abef+bcd/1-cd-fg-cdfg
d) adcdefg/1-cd-fg-cdfg
View Answer

Answer: b

5. Loop which do not possess any common node are said to be _____ loops.
a) Forward gain
b) Touching loops
c) Non touching loops

d) Feedback gain
View Answer

Answer: c

6. Signal flow graphs:
a) They apply to linear systems
b) The equation obtained may or may not be in the form of cause or effect
c) Arrows are not important in the graph
d) They cannot be converted back to block diagram
View Answer

Answer: a

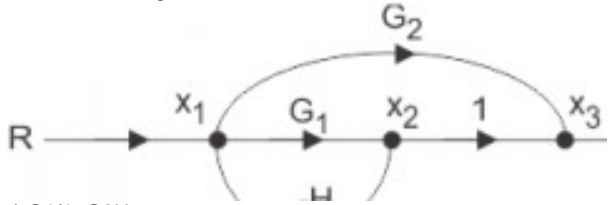
7. Signal flow graphs are reliable to find transfer function than block diagram reduction technique.
a) True
b) False
View Answer

Answer: a

8. The relationship between an input and output variable of a signal flow graph is given by the net gain between the input and output node is known as the overall_____
a) Overall gain of the system
b) Stability
c) Bandwidth
d) Speed
View Answer

Answer: a

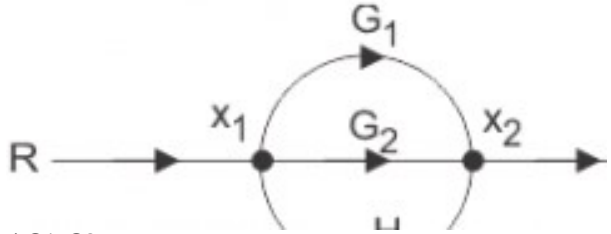
9. Use mason's gain formula to calculate the transfer function of given figure:



a) G1/1+G2H
b) G1+G2/1+G1H
c) G2/1+G1H
d) None of the mentioned
View Answer

Answer: b

10. Use mason's gain formula to find the transfer function of the given figure:



a) G1+G2
b) G1+G1/1-G1H+G2H
c) G1+G2/1+G1H+G2H
d) G1-G2
View Answer

Answer: c