Question 1

In an Activity-On-Node (AON) network, arcs denote activities.
Answer: https://biology-forums.com/index.php?topic=608148

Question 2

In a “Portfolio Selection” application, the objective function is always to minimize risk, given a set of legal and policy constraints.
Answer: https://biology-forums.com/index.php?topic=608017

Question 3

An integer programming problem assumes that its objective function and its constraints are linear.
Answer: https://biology-forums.com/index.php?topic=608111

Question 4

What is the average time a customer spends waiting in line and being served?
a. 0.23
b. 2.33
c. 0.33
d. 1.63
e. 0.70
Answer: https://biology-forums.com/index.php?topic=608192

Question 5

What is the constraint associated with job A for the following assignment problem?
Machine
1 2 3
A $3 $4 $2
Job B $1 $3 $5
C $6 $4 $2
Let Xij = 1 if job i is assigned to machine j, otherwise 0.
a. 3XA1 + 4XA2 + 2XA3 = 1
b. 3XA1 + 4XA2 + 2XA3 = 0
c. 3XA1 + 4XA2 + 2XA3 = -1
d. XA1 + XA2 + XA3 = -1
e. -XA1 - XA2 - XA3 = -1
Answer: https://biology-forums.com/index.php?topic=608062

Question 6

Consider the following maximal flow problem where node 1 is the source and node 6 is the destination. What is the objective function?
a. Max X16
b. Min X16
c. Max X61
d. Min X61
e. Max X26 + X56
Answer: https://biology-forums.com/index.php?topic=608054

Question 7

If a company produces Product A, then it must produce at least 200 units of Product A. Which of the following constraints model this condition?
a. X1Y1 < 200
b. X1 > 200 + Y1
c. X1 < 200Y1
d. X1 - 200Y1 > 0
e. X1 > 200
Answer: https://biology-forums.com/index.php?topic=608092

Question 8

Consider the following shortest path problem where node 1 is the starting node and node 6 is the destination node. What is the constraint associated with node 1?

a. –X12 – X13 = -1
b. –X12 – X13 = +1
c. –X12 – X13 = 0
d. X12 + X13 = 0
e. –X12 + X13 = -1
Answer: https://biology-forums.com/index.php?topic=608059

Question 9

Consider the following maximal flow problem where node 1 is the source and node 6 is the destination. What is the constraint associated with node 6?
a. X46 + X56 = 0
b. X46 + X56 = 1
c. X46 + X56 – X61 = 1
d. X46 + X56 – X61 = -1
e. X46 + X56 – X61 = 0
Answer: https://biology-forums.com/index.php?topic=608055

Question 10

In an exponential smoothing forecast, the value of the smoothing constant alpha can range between -1 and +1.
Answer: https://biology-forums.com/index.php?topic=608261

Question 11

The slack values in the Answer Report can refer to either slack or surplus values based on the type of the inequality.
Answer: https://biology-forums.com/index.php?topic=608048

Question 12

When solving a linear programming model graphically, the corner-point method is more efficient than the isoprofit/isocost lines.
Answer: https://biology-forums.com/index.php?topic=607986

Question 13

Consider the following shortest path problem where node 1 is the starting node and node 6 is the destination node. Excluding the non-negativity constraint, this model has
a. 6 decision variable
b. 7 decision variables
c. 8 decision variables including the dummy arc
d. 5 decision variables
e. none of the above
Answer: https://biology-forums.com/index.php?topic=608061

Question 14

Customers arrive at a grocery store following a Poisson distribution at an average rate of 70 per hour. On average, how many customers arrive per minute?
a. 1.2 customers per minute
b. 7 customers per minute
c. 0.86 customers per minute
d. 0.02 customers per minute
e. 0.7 customers per minute
Answer: https://biology-forums.com/index.php?topic=608187

Question 15

The value of the coefficient of determination R2 ranges between
a. 0 and -1
b. -1 and +1
c. 0 and +1
d. – infinity and + infinity
e. +1 and + infinity
Answer: https://biology-forums.com/index.php?topic=608245

Question 16

Slack for a given activity is computed as Late Finish minus Early Finish.

Answer: https://biology-forums.com/index.php?topic=608138

Question 17

A service system has a constant service time, Poisson arrival rates and 1 server. What is the Kendall notation for this system?
a. M/M/1
b. M/D/1
c. M/G/1
d. D/M/1
e. G/M/1
Answer: https://biology-forums.com/index.php?topic=608185

Question 18

A goal programming problem assumes that its objective function and constraints are linear
Answer: https://biology-forums.com/index.php?topic=608107

Question 19

The ABC Corporation is considering introducing a new product, which will require buying new equipment for a monthly payment of $5,000. Each unit produced can be sold for $20.00. ABC incurs a variable cost of $10.00 per unit. How many units must ABC sell each month to breakeven?
a. 500 units
b. 5000 units
c. 250 units
d. 2500 units
e. 25 units
Answer: https://biology-forums.com/index.php?topic=607952