Choose the best answer from a, b, c, d

The following worksheet gives the result for using the solver in Excel to solve a Linear Programming problem and the Solver box which was used to solve this problem. The following cells are computed by the formulas

B8=B5*B7+C7*C5

B9=B7*B2+C7*C2D9=D2

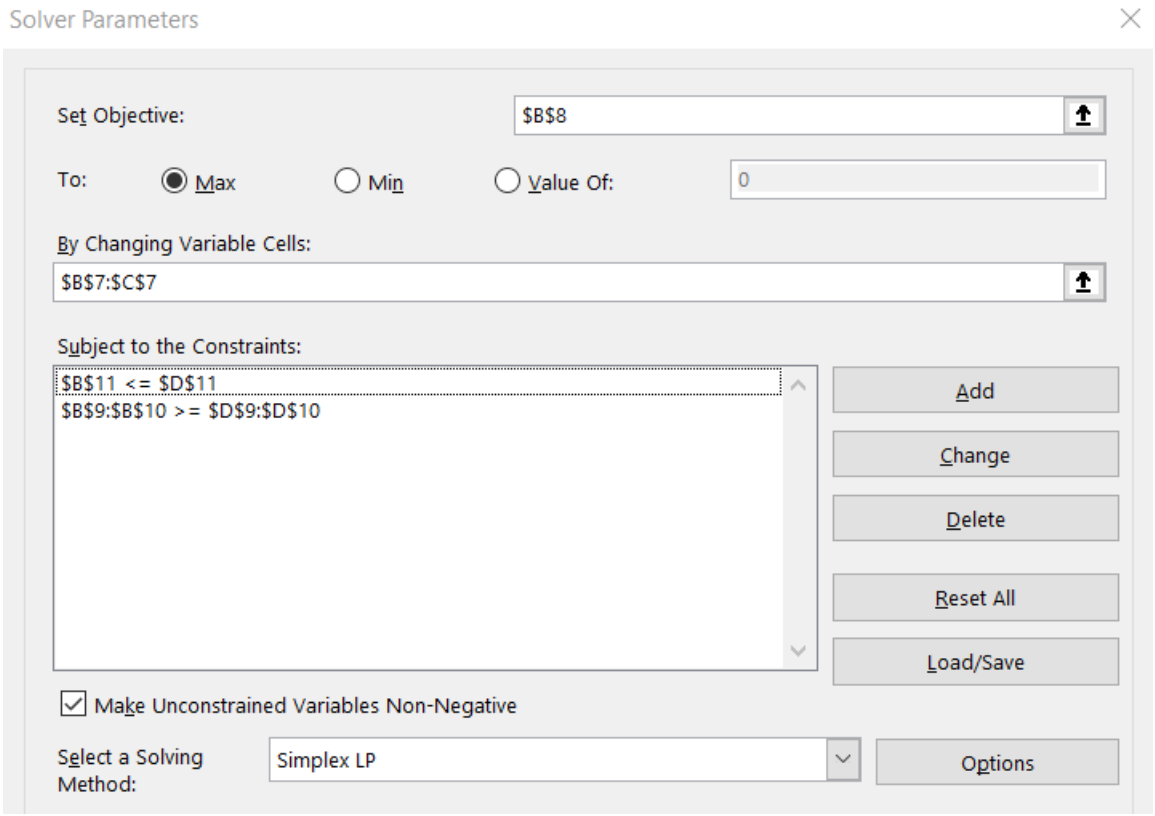
B10=B7*B3+C7*C3 D10=D3

B11=B7*B4+C7*C4 D11=D4

The objective function aim (maximize or minimize) was unknown but the equation for the objective function was given by

$$225X+200Y$$

The optimal decision variables solution was 125 and 25 respectively. Unfortunately, we lost some cells values in the **EXCEL sheet result**. We replaced it with (?).



	A	B	C	D
1		X	Y	RHS
2	1st cons	0	1	25
3	2nd con	1	0	40
4	3rd con	1	1	150
5	PROFI	?	?	
6				
7		?	?	
8		?		
9		?		?
10		?		?
11		?		?

Use the above information to answer questions q1:q17

1) The objective function will be

a) maximize	b) minimize
c) equals	d) none of the above

2) The value in B5 is

a) 200	b) 225
c) 0	d) None of the above

3) The value in C7 is

a) 25	150
b) 125	c) None of the above

4) The objective function value will be in the cell

a) B7	b) B8
c) C7	d) None of the above

5) The value in cell B8 is

a) 14000	b) 33125
c) 31000	d) None of the above

6) The value in cell B10 is

a) 40	b) 125
c) 85	d) None of the above

7) The value in cell D11 is

a) 25	b) 40
c) 0	d) 150

8) The value in B7 is

a) 0	b) 25
c) 125	d) None of the above

9) 150 is the value in cell

a) D4	b) B11
c) D11	d) All of the above

10) The value in cell D2 is

a) 1	b) 25
c) 0	d) None of the above

11) The total profit for Y only is

a) 33125	b) 5000
c) 200	d) Cannot determine

12) The name of the excel file is

a) Solver Parameters	b) ABC
c) MAX	d) Cannot determine

13) The inequality in the first constrain is

a) $\geq$	b) $\leq$
c) $\neq$	d) $=$

14) The inequality in the second constrain is

a) $\geq$	b) $\leq$
c) $\neq$	d) $=$

15) The inequality in the third constrain is

a) $\geq$	b) $\leq$
c) $=$	d) We don't have a third constrain

16) This linear Programming problem has number of constraints equals

a) 1	b) 2
c) 3	d) 7

17) The inequality $X, Y \geq 0$ is

a) A component of thisLP	b) Not a component of this LP
c) Not applicable for this LP	d) Nonlinear constrain

The design and the table of a database using MS Access are as follow: (q18:q33)

CLIENTS FOR ASSC : Table

Field Name	Data Type
SERIAL	Text
CLIENT NUMBER	Number
INVESTMENT	Number
TOTAL SALES	Currency
TAX	Number
REVENUE	Number
LAST DATE	Date/Time
NAME	Text

CLIENTS FOR ASSC : Table

SERIAL	CLIENT NUMBE	INVESTMEN	TOTAL SALE	TAX	REVENUE	LAST DATE	NAME
1	113	1677	22515	2252	20264	1/22/2015	AIS
2	12	3393	25090	2509	22581	1/2/2005	WMS
3	9	2262	23393	2339	21053	2/26/2002	AWAD
4	112	4214	26321	2632	23689	12/25/2005	ATA
5	8	69744	124616	12462	112155	1/7/2010	TILEGRAM
6	108	37692	76538	7654	68884	2/10/2015	S&W
7	208	6028	29043	2904	26138	1/22/2019	CARMEN
8	10	9615	34422	3442	30980	1/22/2015	ZIGZAG
9	212	34807	72210	7221	64989	2/10/2017	MONT
10	110	50940	96410	9641	86769	2/10/2015	GORUN
11	312	16845	45268	4527	40741	12/25/2005	LION
12	308	5977	28966	2897	26069	12/25/2010	K&A
13	213	46837	90256	9026	81230	1/7/2015	SAMA
14	210	25363	58045	5804	52240	1/7/2018	YASSIN
0	0	0	0	0	0		

18) The table name in this database is …….

a) Table
b) CLIENTS FOR ASSC
c) MS Access
d) None of the above

19) The primary key field is …….

a) Serial
b) Number
c) CLIENT NUMBER
d) NAME

20) The data type of the field INVESTMENT is …….

a) Number
b) Text
c) Currency
d) All of the above

21) The data type of the field TOTAL SALES is …….

a) Currency
b) Text
c) Number
d) None of the above

22) The number of the fields is ….

a) 7
b) 8
c) 14
d) None of the above

23) The number of records is ……

a) 7 b) 8

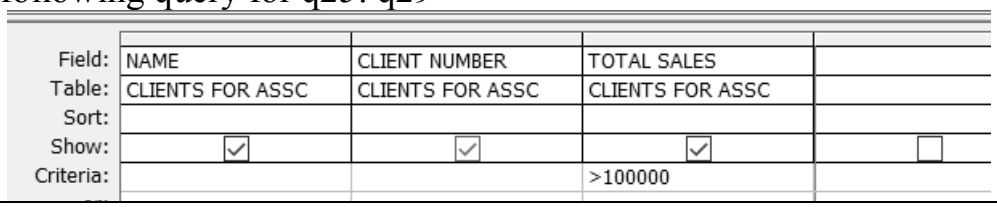
c) 14 d) None of the above

24) The company with serial 5 have an investment

a) 1677 b) 69744

c) 124616 d) None of the above

Consider the following query for q25: q29



Field:	NAME	CLIENT NUMBER	TOTAL SALES	
Table:	CLIENTS FOR ASSC	CLIENTS FOR ASSC	CLIENTS FOR ASSC	
Sort:				
Show:	☑	☑	☑	☐
Criteria:			>100000	

25) This query result will contain number of fields equals ….

a) 3 b) 14

c) 1 d) None of the above

26) The first field in this query is ….

a) SERIAL b) TOTAL SALES

c) NAME d) None of the above

27) The result of this query will contain number of records ….

a) 1 b) 3

c) 2 d) None of the above

28) One of the names in this query result is ……

a) TILEGRAM b) AIS

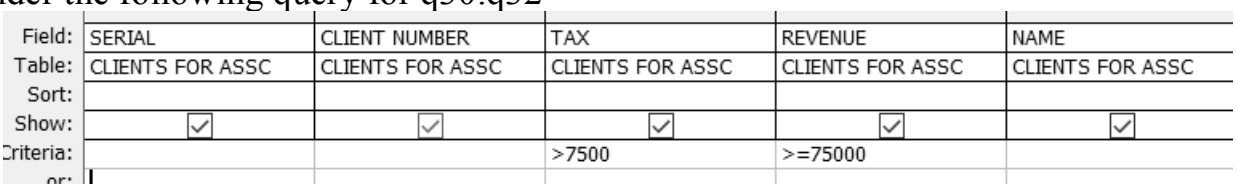
c) SAMA d) None of the above

29) One of the fields of this query result will contains ……

a) TILEGRAM b) 124616$

c) 8 d) All of the above

Consider the following query for q30:q32



Field:	SERIAL	CLIENT NUMBER	TAX	REVENUE	NAME
Table:	CLIENTS FOR ASSC	CLIENTS FOR ASSC	CLIENTS FOR ASSC	CLIENTS FOR ASSC	CLIENTS FOR ASSC
Sort:					
Show:	☑	☑	☑	☑	☑
Criteria:			>7500	>=75000	
or:					

30) The result of this query will containnumber of fields ……

a) 3 b) 1

c) 4	d) None of the above
31) One of theresults of this query contains a serial variable value	
a) 1	b) 5
c) 10	d) None of the above
32) The result of this query will contain number of records ……	
a) 3	b) 5
c) 8	d) None of the above
33) For spread sheet columns identified with	
a) numbers	b) alphabetic
c) mixture between alphabetic and numbers	d) sheets head
Consider the following function for q34: q37 =IF(A2< 60,"F",IF(A2<65,"D",IF(A2<80,"C",IF(A2<95,"B","A"))))	
34) For A2=60 the result of the function is	
a) F	b) D
c) C	d) None of the above
35) For A2=85 the result of the function is	
a) F	b) 85
c) B	d) A
36) For A2=99 the result of the function is	
a) A	b) B
c) C	d) 99
37) For A1=80 the result of the function is	
a) B	b) C
c) F	d) None of the above
38) The result ofthe function =IF(9/3<>3,4,5) is	
a) 3	b) 4
c) 5	d) None of the above
39) Use the sum-of-years' digits depreciation method to calculate the depreciation of an asset in the second year given that it costs $10,000 at the start of year 1 and has a salvage	

value of $1,000 after 5 years.

a) =SYD (10000, 1000, 5, 2)	b) =SYD (10000, 1000, 5, 3)
c) =SLN (10000,1000,5*12,2)	d) =SLN (10000,1000,5*12,3)

40) calculate the yearly depreciation of assets with initial cost = $10,000; salvage = $1,000; lifetime = 10 years using straight line method.

a) DDB (10000,1000,5)	b) =SLN (10000, 1000, 10)
c) DDB (1000,10000,5)	d) =SLN (10000, 1000, 5)

41) How much do you have after you put 1000 pounds for two years in a savings account that pays compound interest at a rate of 9% per annum?

a) =FV (9%/2,4,0,1000)	b) =FV (9%,2,0,1000)
c) =PV (9%/2,4,0,1000)	d) None of the above

42) Suppose that a capital of 500 dollars earns 150 dollars of interest in 6 years. What was the interest rate?

a) =RATE (6,0,500,150)	b) =RATE (6,0,500, -150)
c) =RATE (6,0,500, -650)	d) =RATE (6,0,500,650)

43) How long does it take to double your capital if you put it in an account paying compound interest at a rate of 7.5 %?

a) =NPER (7.5%,0, -1,2)	b) =NPER (7.5%,0,1,2)
c) =NPER (7.5%,0, -1,20)	d) None of the above

44) How much do you need to invest now to get £2000 after five years if the rate of interest is 4.25 %?

a) =PV (4.25,5,0,2000)	b) =FV (4.25,5,0,2000)
c) =PV (4.25%,5,0,2000)	d) =FV (4.25%,5,0,2000)

45) Suppose that you save $1000 in an account that pays 2% interest every quarter. How much do you have in one year, if the interest is paid in the same account?

a) =PV (2%,4,0,1000)	b) =FV (2%,4,0,1000)
c) =PV (2%,1,0,1000)	d) =FV (2%,1,0,1000)

46) At the end of every year, you put $100 in a savings account which pays 5% interest. You do this for eight years. How much do you have at the end?

a) =FV (5%,8,100)	b) =PV (5%,8,100)
c) =FV (5%,1,800)	d) =PV (5%,1,800)

47) A loan of $2500 at a rate of 6.5% is paid o□ in ten years, by paying ten equal installments at the end of every year. How much is each installment?

a) =PMT (6.5%/4,10,2500)	b) =PMT (6.5%,10,2500)
c) =PPMT (6.5%/4,10,2500)	d) =PPMT (6.5%,10,2500)

48) A loan of £5000 is repaid by 15 annual payments of £500, with the first payment due

in a year. What is the interest rate?

a) =RATE (15,500, -5000,0)	b) =RATE (15,500, -5000,1)
c) =RATE (15,500, -5000,0)	d) =RATE (15,500,5000,1)

49) Consider an annuity of payments of £1000 at the end of every second year. What is the present value of this annuity if it runs for ten years and the interest rate is 7%?

a) =PV (7%*2,5,1000,0,0)	b) =PV (7%*2,10,1000,0,0)
c) =PV (7%,5,1000,0,0)	d) =PV (7%,10,1000,0,0)

50) A mortgage of £120,000 is repaid over 20 years by equal monthly payments. How much is every payment on the basis of an e□ective interest rate of 5.89% p.a.?

a) =PMT (5.89%,20,120000)	b) =PMT (5.89%/12,20*12,120000)
c) =PV (5.8%/12,20*12,120000)	d) None of the above

51) Suppose that it takes the contractor nine months to build the house. When it is finished, he sells it for£75,000. The net cash flow is as given in the following table.

time	payments
At the beginning	-15000
First month	-30000
A quarter of a year	-25000
At the end	+75000

What is the function to compute the present value of this project. Use interest rate 6%

a) =NPV (6%, -15000, -30000,0, -25000,0,0,0,0,0,75000)

b) =NPV (6%, -15000, -30000, -25000,75000)

c) =NPV (6%/12, -15000, -30000,0, -25000,0,0,0,0,0,75000)

d) =NPV (6%/12, -15000, -30000, -25000,75000)

52) To find the quarterly payments into an investment with current value $0, which is required to reach $5,000 over 2 yrs. The interest rate is 3.5% per year (payment made at start of each quarter):

a) =PPMT(3.5%/4, 2*12, 0, 5000)	b) =IPMT(3.5%/12, 2*12, 0, 5000,1)
c) =PMT(3.5%/4, 2*4, 0, 5000, 1)	d) =PMT(3.5%/12, 2*12, 0, 5000, 1)

53) The sum of the values in the range B1:E1 is given by

a) =B1+C1+D1+E1	b) =SUM (B1:E1)
c) =SUM (B1:C1) +SUM (D1:E1)	d) All of the above

54) The formula =ROUNDDOWN (9.9999, -2) equals

a) 10	b) 0
c) 9.99	d) None of the above

55)	The result for the formula =ROUNDUP (-11.111, 1)	
	a) -11.0	b) -11.1
	c) -11.2	d) None of the above
56)	The formula =POWER (8, (1/3)) is	
	a) =SQRT (4)	b) =2
	c) =4^0.5	d) All of the above
57)	The range A5:D7 contains number of cells equal …	
	a) 9	b) 12
	c) 6	d) None of the above
58)	The cell C5=A3/B5$ was copied to cell D7. The cell D7 formula will be as ….	
	a) =A3/B$5	b) =B5/C$5
	c) =B5/C$6	d) None of the above
59)	The formula=ABS (-1*(2 - 4.5)) result is	
	a) -2.5	b) 2.5
	c) -1	d) 1
60)	= PRODUCT (5,6) gives the following result	
	a) 11	b) 56
	c) 30	d) 15625