



امتحان نهائي الفصل الدراسي الثاني 2023/2022

المستوى: الرابع البرنامج: البيولوجيا الجزيئية

المادة: تطبيقات في الحاسب الآلي كود المقرر: 401س



كلية العلوم

الدرجة الكلية: 90 درجة

الزمن: ساعتين

التاريخ: 10 / 6 / 2023

قسم الرياضيات

**Answer the following questions:**

**Question1: Choose the correct answer:**

(15 Marks)

- Which cell reference is correct.....
  - \$A1\$
  - \$A1
  - A\$1\$
  - 1A
- The formula=SQRT(-4) will be result the error.....
  - #NUM!
  - #REF!
  - #VALUE!
  - ####
- Which symbol must all formula begin with?
  - +
  - @
  - =
  - \$
- What allow quickly apply the content for one cell to another cell?
  - Active cell
  - Auto sum
  - Auto Fill
  - Auto cell
- Which of the following syntax is correct regarding to AVERAGE function in Excel?
  - =AVERAGE(4, 5, 6, 7)
  - AVERAGE(A1:A9, B1:B9)
  - =AVERAGE (A1, B1, C1)
  - All the above
- Which formula would you use to calculate how many sales are over \$20 from a series?
  - Sum
  - SumIF
  - Count
  - CountIF
- Formula ..... counts the number of text cells in the given range.

	A	B	C	D	E	F	G	H
1	Star	Star	Stars	Star5		star12	8	moon

- = CountA (A1:H1)
  - = CountIF (A1:H1, “\*star\*”)
  - = CountIF (A1, H1, “\*”)
  - = CountIF (A1, H1, “\*”)
- An Excel file is generally called a / an .....
    - Spreadsheet
    - Worksheet
    - Workbook
    - Application
  - To measure ranked variables the ..... correlation coefficient is used.
    - Spearman's
    - Pearson's
    - Fisher's
    - None of these
  - Cell D4 contains the formula =C1+C2. What formula will see when you paste this into cell E5?
    - =C1+C2
    - =D2+D3
    - =D1+D2
    - =\$C1+\$C2

**Question2: Complete the following sentences:**

(15 Marks)

- Function ..... finds the most frequently occurring number.
- Formula ..... is used to find the second smallest number.
- Function ..... calculates the variance based on the entire population, while function ..... estimates the variance based on a sample.
- Formula ..... is used to find the 30<sup>th</sup> percentile of the list in cells E2:E5.

5) For the data below, the formulas that are used to compute the median, the upper quartile ( $Q_3$ ), and lower quartiles ( $Q_1$ ) are .....(1)....., .....(2)....., and .....(3)....., respectively.

	A	B	C	D	E	F	G	H	I
1	6	47	49	15	43	41	7	39	43

**Question3: (i) Write the result of x in each code by using R-language: (15 Marks)**

- `>>x=1:5`
- `>>x=c(1,3,m,"b")`
- `>>a=2;b=3;c=5; x=sum(a,b,c)`
- `>>x=sort(5,0,8,2,4)`
- `>>x<-5;y<-(1,4,6,23);x=diff(y)`
- `>>x<-rep(c(1,3),c(2,4))`
- `>>x=-2^2`
- `>>x<-44%%5`
- `>>x<-sqrt(9)`
- `>>x=sin(45)^2+cos(45)^2`
- `>>x=array(c(2,1,3,0,-31,1,1,0,2,0,-2,0),dim(3,4))`

(ii) How many number of ways to arrange the letters of a word Possibility?(by using EXCEL)

**Question4:Write the uses of the following Functions: (20 Marks)**

getwd(), rm(list=ls()), listfiles(), options(width=30),  
LETTERS, month.name, history,max()

**Question5:Write the codes or Functions of the following: (25 Marks)**

1- Solving System

$$\begin{aligned} 3x_1+2x_2-x_3 &= 1, \\ 2x_1-2x_2+4x_3 &= 2, \\ -x_1+0.5x_2-x_3 &= 0 \end{aligned}$$

2)  $3!$ ,  ${}^3P_2$ ,  ${}^5n_3$ .

With my Best wishes

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