# STELLA MARIS COLLEGE, (AUTONOMOUS) CHENNAI-86 <br> (For candidates admitted during the academic year 2019-20 and thereafter) 

COURSE CODE: 19CM/PE/BD15

## M.COM DEGREE EXAMINATION - NOVEMBER 2022 <br> COMMERCE <br> THIRD SEMESTER <br> COURSE TITLE : BUSINESS DATA ANALYSIS - THEORY <br> TIME : 1 HOUR MAX. MARKS: 40

Answer any Ten of the following:
( $10 \times 4=40$ )

1. Explain the different data types.
2. What is coding? How is it done?
3. Elucidate the techniques used in data analysis.
4. Describe the role of computers in data analysis.
5. Write a note on the use of spreadsheets in financial statement analysis.
6. Explain the steps involved in creating a chart in Excel.
7. Write the excel functions (with syntax) to calculate the present value and future value of money.
8. Expand SPSS. State its uses in business research.
9. What are the steps involved in testing of hypothesis?
10. In SPSS, what are the types of variables that could be entered?
11. Write a short note on the data files and output files in SPSS.
12. List the steps to be followed to perform the chi-square test in SPSS.

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M.COM DEGREE EXAMINATION - NOVEMBER 2022

COMMERCE
THIRD SEMESTER
COURSE TITLE : BUSINESS DATA ANALYSIS - PRACTICAL
TIME : 2 HOURS MAX. MARKS: 60
Answer any Six of the following:
( $6 \times 10=60$ )

1. Using the following data, prepare a table showing the distribution of wages among 50 workers. Also present the data in a chart using Excel.

| 130 | 125 | 121 | 100 | 96 | 128 | 76 | 78 | 103 | 100 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 110 | 62 | 151 | 142 | 71 | 74 | 66 | 142 | 136 | 85 |
| 145 | 110 | 107 | 80 | 76 | 144 | 98 | 101 | 122 | 123 |
| 150 | 118 | 95 | 60 | 132 | 134 | 114 | 116 | 124 | 65 |
| 130 | 90 | 96 | 85 | 81 | 105 | 150 | 61 | 101 | 78 |

2. (a) The production of cement by a firm in years 1 to 6 is given below:

| Year | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Production (tons) | 400 | 550 | 575 | 616 | 723 | 848 |

Calculate 3 yearly moving averages. (Use Excel)
(b) ) Prepare a Comparative Statement from the following information: (Use Excel)

Balance Sheet of XYZ Ltd.

| Liabilities | $\mathbf{2 0 1 7}$ <br> Rs. | $\mathbf{2 0 1 8}$ <br> Rs. | Assets | 2017 <br> Rs. | $\mathbf{2 0 1 8}$ <br> Rs. |
| :--- | ---: | ---: | :--- | ---: | ---: |
| Share |  |  |  |  |  |
| Capital | 18000 | 19000 | Cash | 6000 | 4000 |
| Creditors | 6400 | 7600 | Debtors | 15500 | 19000 |
| P \& L a/c | 2900 | 3500 | Buildings | 5000 | 6200 |
|  |  |  | Patent | 800 | 900 |
|  | 27300 | 30100 |  | 27300 | 30100 |

3. Balance Sheets of M/s. Black and White as on Jan 1, 2019 and Dec 31, 2019 were as follows:

Balance Sheet
(Rupees in lakhs)

| Liabilities | $\mathbf{1 - 1 - 2 0 1 9}$ | $\mathbf{3 1 - 1 2 - 2 0 1 9}$ | Assets | $\mathbf{1 - 1 - 2 0 1 9}$ | 31-12-2019 |
| :--- | ---: | ---: | :--- | ---: | ---: |
| Creditors | 40000 | 44000 | Cash | 10000 | 7000 |
| White's Loan | 25000 | - | Debtors | 30000 | 50000 |
| Loan from Bank | 40000 | 50000 | Stock | 35000 | 25000 |
| Capital | 125000 | 153000 | Machinery | 80000 | 55000 |
|  |  | Land | 40000 | 50000 |  |
|  |  | Buildings | 35000 | 60000 |  |

During the year machine costing Rs. 10,000 (accumulated depreciation Rs. 3,000) was sold for Rs. 5,000 . The provision for depreciation against machinery as on Jan 1, 2019 was Rs. 25,000 and Dec 31, 2019 Rs. 40,000. Net profit for the year 2019 amounted to Rs. 45,000. Prepare Cash Flow Statement using Excel.
4. A Steel Manufacturing company requires you to calculate and present the budget for the next year from the following information using Excel:
Sales: Rs. 2,00,000
Direct materials cost: $50 \%$ of sales
Direct wages: 10 workers @ Rs. 125 per month
Factory overheads:
Indirect labour:
Supervisor : Rs. 300 per month
Factory Manager: Rs. 400 per month
Stores and spares: $2 \%$ of sales
Depreciation on Machinery: Rs. 10,000
Light and power: Rs. 4,000
Repairs and maintenance: Rs. 5,000
Other Sundries: $10 \%$ on direct wages
Administration expenses: Rs. 12,000 p.a.
5. From the following data, obtain the two regression equations and calculate the coefficient of correlation: (Use SPSS)

| Sales | 91 | 97 | 108 | 121 | 67 | 124 | 51 | 73 | 111 | 57 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Purchases | 71 | 75 | 69 | 97 | 70 | 91 | 39 | 61 | 80 | 47 |

6. Two researchers adopted different sampling techniques while investigating the same group of students to find the number of students falling in different intelligence levels. The results are as follows:

Number of Students in each level

| Researcher | Below <br> Average |
| :---: | :---: |
| X | 86 |
| Y | 40 |

Above
$\begin{array}{cccc}\text { Average } & \text { Average } & \text { Genius } & \text { Total } \\ 60 & 44 & 10 & 200\end{array}$
Would you say that the sampling techniques adopted by the two researchers are significantly different? (Use SPSS)
7. The following data represent the number of units of a commodity produced by 3 different workers using 3 different types of machines:

| Machines <br> Workers | A | B | C |
| :---: | :--- | :--- | :--- |
| X | 16 | 64 | 40 |
| Y | 56 | 72 | 56 |
| Z | 12 | 56 | 28 |

Test (i) whether the mean productivity is the same for the different machine types, and (ii) whether the three workers differ with respect to mean productivity. (Use SPSS)

