

## 9.1.0 BUSINESS CALCULATIONS AND STATISTICS KNEC SYLLABUS

### 9.1.1 Introduction

This module unit is intended to equip the trainee with knowledge, skills and attitudes that will enable him/her use business calculations and statistical techniques in making simple business decisions in day to day operations.

### 9.1.2 GENERAL OBJECTIVES

By the end of this module unit, the trainee should be able to:

- a) Appreciate use of business calculations and statistical techniques in business
- b) Understand various business computations leading to decisions
- c) Acquire necessary background for further mathematical treatment
- d) Appreciate the emerging trends and issues in statistical techniques

### Module Unit Summary and Time Allocation

Code	Sub-module Units	Contents	Time (Hrs)
9.1.01	Basic arithmetic operations	<ul style="list-style-type: none"><li>• arithmetic operations</li></ul>	4
9.1.02	Linear equations	<ul style="list-style-type: none"><li>• simple linear equations</li><li>• Process of solving business problems using linear equations</li></ul>	6
9.1.03	Ratios, rates, percentages, mixtures, proportions and allegations.	<ul style="list-style-type: none"><li>• rates</li><li>• comparison of quantities using ratios</li><li>• fractions, decimals and percentages</li><li>• problems involving mixtures</li></ul>	8

		<ul style="list-style-type: none"> <li>differentiating direct and inverse proportions</li> <li>allegations</li> </ul>	
9.1.04	Discounts and commissions	<ul style="list-style-type: none"> <li>types of discounts and commissions</li> </ul>	4
9.1.05	Income tax and insurance	<ul style="list-style-type: none"> <li>meaning of income tax</li> <li>methods of computing income tax</li> <li>meaning of insurance</li> <li>methods of computing insurance</li> </ul>	4
9.1.06	Profit and loss	<ul style="list-style-type: none"> <li>distinction between profit and loss</li> <li>distinction between margins and mark-ups</li> <li>Turnover</li> </ul>	4
9.1.07	Hire purchase	<ul style="list-style-type: none"> <li>meaning of hire purchase</li> <li>difference between hire purchase and cash price</li> <li>procedure of solving problems involving hire purchase</li> </ul>	4
9.1.08	Currency conversion	<ul style="list-style-type: none"> <li>definition of currency</li> <li>different currency rates</li> <li>currency conversion methods</li> </ul>	4

9.1.09	Series and sequence	<ul style="list-style-type: none"> <li>• definition of series and sequence</li> <li>• uses of series and sequence solving problems</li> </ul>	8
9.1.10	Index numbers	<ul style="list-style-type: none"> <li>• basic concepts</li> <li>• uses of index numbers</li> <li>• types of index numbers</li> <li>• limitations of index numbers</li> </ul>	6
9.1.11	Business calculus	<ul style="list-style-type: none"> <li>• basic concepts</li> <li>• differentiation</li> <li>• integration</li> <li>• Application of calculus in business</li> </ul>	8
9.1.12	Introduction to statistics	<ul style="list-style-type: none"> <li>• meaning of the term statistics</li> <li>• purpose of statistics</li> <li>• uses of statistics</li> <li>• limitations of statistics</li> </ul>	4
9.1.13	Collection of data	<ul style="list-style-type: none"> <li>• types of data</li> <li>• methods of data collection</li> <li>• sampling methods</li> </ul>	4
9.1.14	Classification of data	<ul style="list-style-type: none"> <li>• meaning of classification of data</li> </ul>	4

		<ul style="list-style-type: none"> <li>• frequency distribution table</li> <li>• tabulation of data</li> </ul>	
9.1.15	Presentation of data	<ul style="list-style-type: none"> <li>• Methods of presenting data</li> </ul>	4
9.1.16	Measures of central tendency	<ul style="list-style-type: none"> <li>• meaning of central tendency</li> <li>• types of central tendency</li> <li>• characteristics of central tendency</li> <li>• advantages and disadvantages</li> </ul>	8
9.1.17	Measures of dispersion	<ul style="list-style-type: none"> <li>• meaning of measures of dispersion</li> <li>• types of measures of dispersion</li> <li>• characteristics of measures of dispersion</li> <li>• advantages and disadvantages of measures of dispersion</li> </ul>	10
9.1.18	Regression and correlation	<ul style="list-style-type: none"> <li>• basic concepts</li> <li>• regression analysis</li> <li>• correlation</li> <li>• Pearson product moment</li> </ul>	8

		<ul style="list-style-type: none"> <li>• spearman's coefficient of rank correlation</li> </ul>	
9.1.19	Probability	<ul style="list-style-type: none"> <li>• basic concepts</li> <li>• rules of probability</li> <li>• types of events</li> <li>• decision trees</li> <li>• standard normal distribution</li> </ul>	8
9.1.20	Financial mathematics	<ul style="list-style-type: none"> <li>• simple and compound interest</li> <li>• depreciation</li> <li>• annuities</li> </ul>	2
9.1.21	Emerging trends and issues in business calculations	<ul style="list-style-type: none"> <li>• emerging trends and issues in business calculations and statistics</li> <li>• challenges posed by emerging trends and issues</li> <li>• coping with challenges posed by emerging trends and issues</li> </ul>	4
<b>TOTAL</b>			<b>120</b>