Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TIME: 2 ½ HOURS

**Computer Studies FORM 4 JANUARY 2023 TERM 1 OPENER EXAM Paper 2**

**451/2**

**COMPUTER STUDIES**

**PAPER 2**

**(PRACTICAL)**

**TIME: 2 ½ HOURS**

 Instructions to candidates.

1. Indicate your name and index number at the top right hand corner of each printout.
2. Write your name and index number on the CD provided.
3. Write the name and version of the software used for each question attempted.
4. Answer **all** questions.
5. All questions carry equal marks.
6. Passwords should not be used while saving.
7. Make a print out of the answers on the answer sheet.
8. Hand in all the print out and the CD.

*This paper consists of 4 printed pages.*

*Candidate should check the question paper to ascertain all pages are printed as indicated*

*And no questions are missing.*

1. The table below shows the admission numbers and names of five students and

their scores in six subjects in a mock examination.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADM. NO.** | **Name** | **English** | **Maths** | **Biology** | **Chemistry** | **Physics** | **History** |
| 2020 | Victor Mutiso | 77 | 68 | 75 | 35 | 58 | 80 |
|   |
| 2032 | Zablon Onyango | 44 | 77 | 80 | 42 | 60 | 73 |
| 2037 | Pauline Nafula | 68 | 59 | 91 | 39 | 59 | 75 |
|   |
| 2040 | Naom Cherop | 55 | 80 | 89 | 48 | 38 | 66 |
|   |
| 2044 | Jameleck Kioko | 69 | 62 | 83 | 43 | 44 | 70 |

a) Enter the above data into a worksheet and save the file as ‘mock results’ (11mks)

b) Using a formula, calculate the; (4mks)

 i) Total score for each students

 ii) Mean score for each student

c) Use a function to obtain the mean for each subject (3mks)

d) A student is awarded a ‘pass’ if their mean score is 60% or more. Use a function to determine the number of students who are awarded ‘pass’ (2mks)

e) Format the worksheet as follows

* Borders : single line
* Subject heading : align 90$°$
* Marge the cells above all the subjects headings so that the text ‘SUBJECT’ is above them.
* Mean score: One decimal place (4mks)

f) Copy the contents of the worksheet to a blank worksheet and insert a blank column after every subject.

Label the new columns as Eng. B, math B, Bio B, Chem B, Phy B, and Hist B respectively. On the inserted columns, compute the grades using IF function based on the following criteria. (10mks)

Mean score Grade

score$\geq $75 A

60 $\leq $ score <75 B

50$ \leq $score < 60 C

45 $\leq $score <50 D

Score < 45 E

g) Hide all the columns containing score values and save the worksheet as “Mock Results (2mks)

h) Create a bar chart to compare students mean score and label the chart accordingly. (10mks)

i) Print the two worksheets and the bar chart (4mks)

1. The tables below, **STUDENT, SUPERVISOR** and **SUPERVISIONS** are extracts of records kept in MOKASA UNIVERSIRY for project supervisions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Number** | **Name** | **Gender** | **Project Fee Paid** |
| C001 | Ken | M | 32000 |
| C002 | Joy | F | 27800 |
| C003 | Lero | M | 18900 |
| C004 | Moth | F | 42700 |
| C005 | Ben | M | 45000 |

**Table 1 STUDENTS TABLE**

|  |  |  |
| --- | --- | --- |
| **Supervisor Number** | **Name** | **Department** |
| L220 | Alex | Mechanical |
| L230 | Sakaja | ICT |
| L240 | Roy | Electronics |
| L250 | Mati | Education |
| L260 | Joy  | Human Resource |

**Table 2 SUPERVISOR S’ TABLE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supervision Number** | **Supervision Date** | **Student Number** | **Supervisor Number** | **Project****Title** |
| 100 | 12/03/2015 | C001 | L220 | Java |
| 200 | 22/03/2015 | C003 | L230 | Website |
| 300 | 17/03/2015 | C004 | L240 | Robotics |
| 400 | 02/03/2015 | C001 | L220 | Java |
| 500 | 18/03/2015 | C002 | L240 | Robotics |
| 600 | 12/03/2015 | C004 | L230 | Java |
| 700 | 11/03/2015 | C002 | L250 | Database |
| 800 | 12/03/2015 | C003 | L220 | Java |
| 900 | 12/04/2015 | C005 | L250 | Database |
| 1100 | 12/04/2015 | C002 | L250 | Database |

**Table 3 SUPERVISIONS TABLE**

1. Using a database application software, create a database file named **PROJECT** (1mk)
2. Create three tables named **STUDENT, SUPERVISOR** and **SUPERVISIONS** as shown above. (9mks)
3. Set the primary key for each table. (3mks)
4. Create relationships among the tables. (2mks)
5. Enter the data in the table **STUDENT, SUPERVISOR** and **SUPERVISIONS** as shown above. (9mks)
6. Create a form for each table above. (3mks)
7. Create a query named **BALANCE** to display student name, Gender, project fee balance per student, given that the total project fee is **Ksh.50000**. (4mks)
8. Create a query named **BALANCE2** to display students’ Names, project title whose fee balance is above **Ksh.20000.** . (4mks)
9. Create a bar chart based on question (h) to display students Name and balance. Save as **BALANCE CHART.**  (3mks)
10. Create a report named SUPERVISION to display Students Names, Project Title, names of supervisor, and supervision Dates. The records in the report should be grouped by students’ Name and the number of supervisions by each student should be displayed. (5mks)
11. Title the report as supervision per lecturer. (2mks)

1. Print the following:
* **Tables**: STUDENT, SUPERVISOR and SUPERVISIONS (2mks)
* **Queries**: BALANCE and BALANCE2 (2mks)

**REPORT**: SUPERVISIONS (1mk)