**CLASS WORK DATABASE QUESTIONS FOR ICT**

**QUESTION 1**

The table below was extracted from the database of Young Consult Ltd, a firm that deals in importation and distribution of electrical appliances.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IDNo | FirstName | Last Name | Sex | Age | Residence | No. ofchildren | Gross pay | PAYE |
| P025 | Peter | Ocen | Male | 24 | Wakiso | 2 | 880,000 |  |
| P039 | David | Obal | Male | 25 | Wakiso | 3 | 660,000 |  |
| P048 | Ann | Arop | Female | 34 | Muyenga | 1 | 670,000 |  |
| P040 | Titus | Komakech | Male | 28 | Kazo | 2 | 750,000 |  |
| P057 | Annet | Lalam | Female | 27 | Kawempe | 4 | 940,000 |  |
| P063 | Thereza | Okello | Male | 26 | Kanyanya | 3 | 780,000 |  |
| P079 | Tania | Abalo | Female | 23 | Ntinda | 1 | 790,000 |  |
| P085 | Rona | Lakot | Female | 35 | Natete | 3 | 820,000 |  |
| P019 | Joyce | Akech | Female | 36 | Makindye | 4 | 890,000 |  |
| P068 | Ronald | Okecha | Male | 42 | Mbarara | 5 | 450,000 |  |
| P046 | Theo | Okwera | Male | 26 | Wakiso | 2 | 560,000 |  |
| P033 | Ole | Opio | Male | 36 | Kawempe | 4 | 888,000 |  |

You are required to:

(a)Create a database file called Young Consult Ltd. (01 mark)

(b)Create a table structure for the table above assigning it with appropriate data types and primary key. Name if Young Table 1. (03 marks)

(c) Create Young Form 1 and use it to populate Young Table 1. (07 marks)

(d)Create Young Form 2 and use it to fill PAYE column for all employees.

PAYE is calculated at 10% of Gross Pay. (03 marks)

(e)Create s Query that can return all those employees whose names begin with letter T, and name it T-query. (03 marks) (f)Generate a database object that can be used to return details of all employees whose age is below 30 years. Assign it appropriate name.

 (03 marks)

(g)Create a report of all female employees with appropriate title and a footer of your name. (03 marks)

(h)Create a query showing all employees who reside in Kawempe and Wakiso.

 (03 marks)

(i)Apply a UGX currency symbol on the Gross pay figures. (02 marks)

(j)Save and print all your work. (02 marks)

**QUESTION 2**

The table exhibited shows the records of hours worked in the month of June 2017 by each employee in one of the wheat industry in Kampala.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Employee No | Name | Gender | Date of Birth | Hours worked | Hourly Rate | Total June Wedge |
| 1 | Pius Mukasa | Male | 2/12/1980 | 40 | 25000 |  |
| 2 | Rita Nanono | Female | 14/04/1979 | 36 | 30000 |  |
| 3 | Susan Akot | Female | 30/5/1985 | 24 | 38000 |  |
| 4 | Margaret Nin  | Female | 5/5/1978 | 30 | 26000 |  |
| 5 | Paul Toto | Male | 7/6/1977 | 35 | 22000 |  |
| 6 | Peter Zziwa | Male | 6/1/1979 | 33 | 20000 |  |
| 7 | Lilian Achan | Female | 4/6/1978 | 25 | 25000 |  |
| 8 | Joyce Mum | Female | 25/3/1986 | 50 | 15000 |  |
| 9 | Tom Wawa | Male | 23/2/1984 | 46 | 22000 |  |
| 10 | James Semakula | Male | 24/4/1981 | 45 | 24000 |  |

* 1. Create database file name wheat using any available database management system application. (02 marks)
	2. Design a table called employee with all the appropriate fields and the primary key. (03 marks)
	3. Apply correct data types foe each field. (03 marks)
	4. Design a form for the Employee table and name it employee Form.

(03 marks)

* 1. Use the form to enter all the records in the employee’s table to the database. (05 marks)
	2. Design queries that can:
		1. Automatically compute the total June’s wedge per employee and save it Salary. (04 marks)
		2. Filter Female employees that have worked for more than 40 hours and save it female 40. (04 marks)
	3. Generate a report of Female 40 query and name it Female40 report.

 (05 marks)

* 1. Save changes and print the report Female 40. (01 mark)

**QUESTION 3**

Create a database saved as ‘students’ to hold the following table. **(03 marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student ID | Name | Sex | Date of birth | Home district |
| WWW-001 | Kato Justine | F | 1998-10-01 | Jinja |
| WWW-101 | Naiga Sandra | F | 1978-02-28 | Kampala |
| WWW-200 | Kibuye Jeff | M | 1960-10-01 | Wakiso |
| WWW-121 | Walugembe Joseph | M | 1984-04-21 | Wakiso |
| WWW-090 | Outa Denis | M | 1990-03-18 | Kampala |
| WWW-112 | Kalagi Victor | M | 1999-01-01 | Jinja |
| WWW-084 | KyazzeDalvin | M | 2000-01-24 | Jinja |
| WWW-070 | IgemeJackline | F | 1992-12-12 | Jinja |
| WWW-020 | KitakuleSanon | M | 1992-10-30 | Kampala |
| WWW-004 | Wanyanka Jerks | M | 1984-01-31 | Wakiso |
| WWW-300 | Mudhe Isaac | M | 1970-08-21 | Kampala |
| WWW-301 | Nansubuga Vivian | F | 1980-10-10 | Jinja |

Instructions:

1. Design a table saved as ‘biodata’. **(05 marks)**
2. Insert a primary key in a relevant field. **(02 marks)**
3. Design a form having an appropriate background colour that you will use to enter the above records in your table saved as ‘entryform’.

 **(02 marks)**

1. Create three queries to return students:
2. who are above 25 years of age. Save the query as ‘above25years’. **(04 marks)**
3. whose second name begin with letter J. save the query as ‘letterj’. **(04 marks)**
4. that were born between 1980 and 1998. Save the query as ‘betn8098’

**(04 marks)**

1. Create a report from your table showing only Name, Sex and Home District. Save the report as ‘all’. **(04 marks)**

**QUESTION 4**

Create a database for *Jinja Bridal Car Hire Ltd* saved as **bridal** and carry out the following tasks. (02 marks)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employee\_Name | Sex | Date\_of\_Birth | Car\_Type | Employee\_ID | Remarks |
| Kalambe Daphine | F | 1980, 11 – 18 | Premio | JBCH-200 | Good work |
| Sanjay Hussein | M | 1978, 02 – 27 | Benz | JBCH-010 |  |
| Kapalaga Michael | M | 1984, 10 – 30 | Premio | JBCH-001 | Experienced |
| Nabukera Joan | F | 1991, 11 – 30 | Premio | JBCH-019 | Time keeper |
| Sentongo Philip | M | 1962, 01 – 10 | Wish | JBCH-180 |  |
| Muwanguzi Vivian | F | 1973, 04 – 01 | Premio | JBCH-150 | Co-opertive |
| Kato William | M | 1950, 06 – 02 | Wish | JBCH-090 | Experienced |
| Walugembe Alex | M | 1992, 06 – 14 | Benz | JBCH-060 | Time keeper |
| Okello Stephen | M | 1982, 01 – 31 | Wish | JBCH-070 | Eratic |

Instructions:

(a). Design a table saved as **drivers** to hold the above data. (08 marks)

(b).Using appropriate field, assign a primary key. (02 marks)

(c). Design a form having a sky-blue background colour, footer of your name you will use to populate the table. Save the form as **dataentry**.

 (04 marks)

(d).Design three queries that will return workers who:

(i). have no remarks against their records. Save the query as **not appraised**. (03 marks)

(ii).drive Car\_Type that is *not a Wish*. Save the query as **Wish**.(03 marks)

(iii).celebrate birth day in the month of January. Save the query as **bornjan**. (03 marks)

(e). Create a report to return drivers who drive a premio Car\_Type. Save the report as **premio**. (03 marks)

(f). Print your queries and report only. (02 marks)

**QUESTION 5**

Open any database programme that you are familiar with and create a database file called **Employee Database.**

Enter the following records, sort table by Employee No. in ascending order, save the table as employee. ***3 marks***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE NO** | **SURNAME** | **FIRST NAME** | **DOB** | **DATE EMPLOYED** |  **QUALIFICATION** | **DEPARTMENT** |
| KK001 | KAYUBU | MICHEAL | 20/01/72 | 01/01/02 | MASTERS | HRM |
| KK002 | MAGERO | EDWARD | 23/04/69 | 23/04/92 | DIPLOMA | MARKETING |
| KK004 | OPIO | MOSES | 13/06/85 | 01/06/85 | DEGREE | PRODUCTION |
| KK006 | TAMALE | MIRUNDI | 07/03/50 | 03/05/81 | DEGREE | PRODUCTION |
| KK008 | KAZINDA | ARNOLD | 23/01/82 | 01/01/02 | CERT. | HRM |
| KK009 | MALE | GIDEON | 01/02/63 | 01/02/91 | MASTERS | HRM |
| KK010 | NALWEYISO | BIBI | 01/02/79 | 02/03/95 | DEGREE | PRODUCTION |

1. Make a form and enter the above data in the table. Name the form as **The original form *8 marks***
2. Set the primary key on an appropriate field. ***2 marks***
3. Set the employee field size to 6 maximum. ***2 marks***
4. For qualification field, use these fields i.e. Masters, Degree, and Diploma as the only acceptable values in the validation rule. Set the phrase “Wrong Data entered” as a validation text. ***4 marks***
5. Design a query that displays all employees with **Masters** and are in the HRM Department. Save as **query 1** and print a corresponding report based on this query called **Query Report**. ***4 marks***
6. Design a query that displays all employee employed before 01/01/1992 and are having DEGREES. Save as **query 2. *4 marks***
7. Print a report that extracts the following information from the tablei.e. Employee No. Surname, First Name, and Qualifications. ***3 marks***

**QUESTION 6**

**QUESTION 7**

a) Load a Database Application and create a database file where records of employees of **Kirimuttu Co. Ltd** will be entered, save it as **Your Name**-**Employee Records.** (1 Mark)

(b) In design view use the guidelines below to create a table and save it as **Job Titles**: (3 Marks)

|  |  |
| --- | --- |
| **Field Name** | **Guidelines on Field properties** |
| Employee No | - Will contain 5 Characters only **(1 Mark)**- Will have unique entries for each employee |
| Department | Maximum of 25 Characters |
| Job\_title | Text (Maximum of 25 Characters) |
| Date Recruited | Date format dd/mm/yyyy **(1 Mark)** |
| Gross Pay | Number |
| Tax | Number |
| Net Pay | Number |

(c) Create a form for the above table with a ***datasheet layout*** and save it as **Job Title Form**:

 (2 Marks)

(d) Use the form created in (c) above to enter the records below: (3 Marks)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Emp ID** | **Name** | **Department** | **Job Title** | **Date Recruited** | **Gross Pay** | **Tax** | **Net Pay** |
| SCL01 | Picho .R | Welfare | Driver | 01-Jun-07 | 500000 | 50000 |  |
| SCL02 | Machiavelli .P | Welfare | Driver | 21-Jun-06 | 550000 | 55000 |  |
| SCL03 | OKeny .J | Administration | Education Executive | 01-Sep-09 | 800000 | 80000 |  |
| SCL04 | Acol. W | Administration | Office Administrator | 12-May-06 | 680000 | 68000 |  |
| SCL05 | Luwaga. L | Administration | Education Assisstant | 07-Jun-10 | 760000 | 76000 |  |
| SCL06 | Atusinza. C | Accounts | Chief Accounting Officer | 11-Feb-07 | 780000 | 78000 |  |

(e) Create a Report in Landscape orientation showing all the fields in the table except Net Pay;

1. Group the records by Department: Save it as Job title Report. **(2 Marks)**
2. Include a Report Footer of your name and Index Number in Font size16, Color Red. **(1 Mark)**
3. Format the report Header Font Size – 22; Color- Blue; with a light green fill color and centre aligned . (2 Marks)

(f) Create a Query to extract all employees who are not in welfare department and save it as Not Welfare. (1 Marks)

(g) From the Job Title table extract only those employees who were recruited in the month of June; save your query as June Recruits. (1 Marks)

(h) Create a form for the Employee Tax query and in its design view, enter a formula to calculate NET PAY which is [Gross Pay less the Tax] Save it as NetPay Form. (2 Marks)

**QUESTION 8**

Your relative who works in the *Records Department* of an Organisation has approached to help him with his new assignment of creating a simple Employee Database: Using a DBMS you are familiar with, create a database file and save it as ***Your name-Employee Dbase***. ***(1 Mark)***

(a) Following the guidelines below, create a table in design view and save it as **Employee Table.**

 ***(3 Marks)***

|  |  |
| --- | --- |
| **Field Name** | **Guidelines on field properties** |
| **Name** | Maximum of **25** Characters |
| **Sex** | Only **1** Character  |
| **Celphone No** | Maximum of **12** Characters Set as **Compulsory** field **[1Mark]** |
| **DoB** | Short date format |
| **Residence** | Maximum of **25** Characters |
| **Department** | Must set up field with already defined departments for user to choose from.  **[1Mark]** |
| **Basic Pay** | Set as **Numeric** field and it is also a **compulsory** field **[1Mark]**  |
| **No of Days** | Set as **Numeric** Field |

(b) Create a form for the above table and use it to enter the following records into the database; save it as **Employees Form**. ***(3 Marks)***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Sex** | **Celphone No** | **DoB** | **Residence** | **Dept** | **Basic Pay** | **Days of Work** | **Gross Pay** |
| Baine Doris | F | 0701 344 677 | 19-Aug-72 | Namasuba | Accounts | 350000 | 30 |   |
| Lule Cate | F | 0701 444 999 | 07-Feb-78 | Nabweru | IT | 350000 | 21 |   |
| Tuhebwa Chris | M | 0752 777 888 | 03-Apr-82 | Njeru | Accounts | 350000 | 20 |   |
| Ddumba Musa | M | 0754 111 222 | 20-Feb-63 | Bulamu | Welfare | 290000 | 30 |   |
| Waibi Mable | F | 0772 333 666 | 23-Aug-67 | Najjeera | Admin | 450000 | 24 |   |
| OjokTevin | M | 0772 777 888 | 09-Dec-69 | Mukono | IT | 350000 | 30 |   |
| Male Keny | M | 0756 232 555 | 12-Jan-60 | Bbira | Admin | 450000 | 20 |   |

(c) Create a Report with records ***grouped by Department*** in a ***Landscape Orientation***: Save it as **Employee Report**.

* *Include a footer of your name and personal number*. ***(3 Marks)***

(d) Create a query that will extract all employees who are *Airtel Telecom subscribers*; save it as **Airtel Subscribers**. (***2 Marks)***

(e) Create a query that will extract all ***female*** employees who reside in ***towns*** that start with letter **“N”** and; save it as **N-Residents**. (***2 Marks)***

(f) Assuming the Official days of work are 20, Create a calculated query in design view showing only Name, Basic Pay, Days of Work, Gross Pay and include a new field Overtime Allowance; save it as **Employee Pay**.

In this query calculate:

* The Overtime allowance which is [**Excess days of work X 40,000**] ***(2 Marks)***
* The Gross Pay, which is a **sum of [Overtime allowance] and [Basic Pay**] ***(1 Mark)***

**QUESTION 9**

The table below gives information on some staff members of a computer school called **"COMTECH ACADEMY"**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMP NO.**  | **SURNAME** | **FIRST NAME**  | **SEX** | **TITLE** | **DEPARTMENT** | **SALARY (shs)**  | **DATE OF BIRTH**  |
| CA001 | ADUWO | JANE | **F** | DEPUTY | ADMINISTRATION | 620,000 | 17-06-36  |
| CA050 | HOLOWO | MOSES | **M** | TEACHER | BUSINESS | 510,000 | 06-08-77  |
| CA061 | WAPAKABULO | JAMES | **M** | TEACHER | BUSINESS | 600,000 | 05-06-70  |
| CA150 | NAKUMUSANA | MARY | **F** | SECRETARY | INFORMATION | 2275,000 | 20-07-36 |
| CA168 | KOMAKECH | MIKE | **M** | TEACHER | BUSINESS | 500,000 | 15-06-63 |
| CA170 | MUTEBI | JOHN | **M** | DIRECTOR | ADMINISTRATION | 1,000,000 | 17-07-66  |
| CA190 | NDAULA | SARAH | **F** | CASHIER | ADMINISTRATION | 600,000 | 14-04-68  |
| CA201 | OKELLO | JOHN | **M** | DRIVER | ADMINISTRATION | 265,000 | 16-05-63  |
| CA215 | ALIYO | JOYCE | **F** | SECRETARY | COMPUTING | 275,000 | 20-08-70  |
| CA307 | NASSUNA | HARY | **F** | LIBRARIAN | INFORMATION | 310,000 | 07-11-74 |

NOTE: **EMP NO**. represents Employee number.

1. (i) You are required to design a suitable database to manage the above information, name the database “**EMPLOYEE DATABASE**”.
2. Create a table using Design view ,and name it **EMPLOYEE TABLE**.
3. Create a form called Employee Entry Form and enter the above records.
4. (i) Create a query displaying all the fields in the above table to filter out only employees from the department of information. Save it as **INFORMATION DEPARTMENT**.

**Print the query and its output**

1. Create another query displaying all the fields of employees with salary less than 300,000. Name it "salary scales employees less than 300,000."

**Print the query and its output.**

1. The academy 's retirement age is 55years.Create a query to filter out the employees whose ages are above 55years. Name it "RETIREMENT AGE"

**Print query and its output.**

1. Create a report using the employee table and group the records by department and name it "REPORT BY DEPARTMENT" Print the report and the query.

**QUESTION 10**

Your school has decided to keep records of all food items to be kept in the store. You are then tasked to design a database called **Dining Records** and within your database you create the table called **Food Store** as below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **StockNo** | **Item** | **Category** | **ManDate** | **Quantity** | **Price** |
| ST01 | Maize Flour | Grain | 22/3/2017 | 20 | 50000 |
| ST02 | Salt | Spice | 12/4/2014 | 4 | 2000 |
| ST03 | Rice | Grain | 14/4/2015 | 60 | 140000 |
| ST04 | Blue band | Oil | 23/1/2018 | 7 | 3000 |
| ST05 | Beans | Grain | 13/8/2011 | 24 | 40000 |
| ST06 | Royco | Spice | 17/4/2009 | 13 | 4000 |
| ST07 | Kimbo | Oil | 18/1/2018 | 11 | 6000 |
| ST08 | Ginger | Spice | 16/8/2016 | 4 | 7000 |
| ST09 | Tea | Spice | 14/7/2011 | 3 | 6000 |
| ST10 | Cinnamon | Spice | 12/2/2010 | 8 | 8000 |

**Required:**

1. Now that your Head teacher has given you a job to create the database and its table as indicated above. In the table design, ensure the following set field properties:
2. Select the appropriate field and make it the primary key ***(01 mark)***
3. Allocate appropriate data types in all fields of your table ***(03 marks)***
4. Set the fields **Stock No**, **Item**, **Category** to field size of **4**, 1**5** and **10** respectively. ***(03 marks)***
5. Set the **Price** field to be displayed using **UGX** monetary units. ***(01 mark)***
6. Create a professional form based on your table in design view and your form should have the following
7. A header, using the name of your school with 18 font size. ***(02 marks)***
8. A closing button set at the right upper side of your form. ***(01 marks)***
9. A calculated **Total Price** field by taking (**Quantity \* Price**) ***(02 marks)***
10. Include a background color of your choice. ***(01 marks)***
11. Save your form and name it as **School Entries.** ***(01 mark)***
12. Create a query to display all spices that cost below 5000 Ugandan Shillings. Name your query as **Spice less 5000**. ***(06 marks)***
13. Use a query to calculate the Item Age from the time it was manufactured to date and your new calculated age field should be **Item Age**. Save your query as Item **time Lapse.**

***(04 marks)***

1. Create a report based on your table and it should be grouped by Categories. Include your name as a header. Save your report as Food Store Report. ***(05 marks)***

**END**