



## OFFICE APPLICATIONS OLYMPIAD

A project of the Computer Society of South Africa,  
sponsored by the Federation of Engineering, Science and Technology Olympiads and Competitions (FESTOC)

### QUESTION PAPER 2010

#### INSTRUCTIONS TO THE CANDIDATES

1. All answers must be typed or pasted on the answer sheet provided in the document AnswerSheet.doc
2. You may do the questions in any order, but you have to make sure the answers are placed correctly on the answer sheet.
3. The files you need to answer the questions have been provided to your school on CD. Ask your teacher/invigilator where to find them.
4. The paper must be completed under "examination conditions". No communication with other contestants (oral, electronic, or any form) is permitted.
5. Where the same data is provided in different formats, you may use the application of your choice.
6. You have 1.5 hours (90 min.) to complete this paper. After 1.5 hours you will be given time to print your answer sheet, but no additions or alterations to the answers are allowed.
7. All marking is done from hard copy, i.e. from the printed answer sheet.
8. You need to store your files where you found them and where your teacher can access them in case the judges want to see how you obtained the answer. Do not delete any of the files.

#### A: Alumni

**These questions are all based on an alumni (past learners) meeting at the school and collecting funds for the school.**

1. In the file **Program** what feature was used to make the dots in the lines?
2. In the file **AlumniAssociations** how many times is the word 'pupil' found?
3. How many bookmarks does the file **AlumniAssociations** contain?
4. In the file **AlumniAssociations** how many columns are in the table in the body of the document?
5. Open the file **Names**. What is the surname of the tenth person from the top of the list when all the names are arranged in alphabetical order by surname?
6. Open the file **MembershipForm**. What text message is found on the Help feature of all of the form fields?
7. How many label sheets are needed if you create a set of envelope labels for letters to send to all those who donated in cash or kind. Their names are found in the database or spreadsheet called **Donations**. Note that only one label must be printed per person.

The labels must meet the following conditions:

Height of 3.5 cm (1.38 inches), width 7 cm (2.76 inches)  
Vertical pitch of 3.5 cm (1.38 inches), horizontal pitch of 7 cm (2.76 inches)  
Top margin of 0.3 cm (0.12 inches), side margin 0 cm (0 inches)  
Printed 3 across and 8 down on A4 size paper, 24 to a sheet.

[7x1]

## B: School Admin

A well-known school has Crazy-Awards-Day every 1 April. To help them plan, the Crazy-Day committee needs information from you. You have to find the information in the spreadsheet **School Admin**.

Open the file **School Admin**

1. How many learners got 80% or more for both Mathematics and English?
2. How many Grade 11 girls, with a South African nationality, obtained more than 50% for Mathematics?
3. How many learners have "House Points" which are either less than but not including 100 or greater than but not including 400?
4. How many females have a birthday in July?
5. Which ONE of the houses has 293 members?
6. What is the sum of all the house points for the learners in "Eland" house?
7. How many learners have "00" as the last two digits of their Pupcode?
8. How many learners in Grade 12 obtained more than 10% above the grade average for Mathematics? [2 marks]

[(7x1)+2]

## C: Kruger National Park

You have been provided with a spreadsheet, called **KNP.xls** that contains information about rainfall figures in the Kruger National Park for the months of January through to June. The spreadsheet contains a worksheet for each of the months January through to June. The data was obtained from [www.sanparks.org](http://www.sanparks.org)

Study the column headings carefully and then, using any appropriate method, determine the answers to the following questions:

1. Which of the monitoring stations has been providing weather data for the longest period of time?
2. The three columns under the heading "*Totals for this Month*" refer to rainfall statistics for the month indicated in the worksheet. Using the data given, what was the total amount of rain (in mm) that Skukuza received in the period January through to June?
3. What is the "*Average Cumulative Total*" (in mm) for all of the monitoring stations for the month of April? (Give the answer correct to 1 decimal place)
4. For the period January through to June
  - a. Which of the monitoring stations received the most rainfall?
  - b. What is the total amount of rainfall (in mm) that this station received?
5. How many of the monitoring stations had "*Below Average Rainfall*" in June?
6. Which monitoring station(s) consistently has/have an "*Above Average Rainfall*" for the period January to June?
7. For the data given
  - a. which month was the wettest month in the Kruger National Park?
  - b. what was the total rainfall (in mm) for all the monitoring stations in this month?

[9x1]

## D: Municipalities

You have to find information to help your boss answer questions about municipalities in South Africa. You obtained this data from [www.statssa.gov.za](http://www.statssa.gov.za)

Make use of the database **Municipalities.mdb** and/or the spreadsheet **Municipalities.xls** to answer the questions below.

**Note:** In the database or spreadsheet the province in which the municipality is located can be found from the first two characters of the MuniCode field.

EC = Eastern Cape  
FS = Free State  
GT = Gauteng  
KZ = KwaZulu-Natal  
NP = Limpopo  
MP = Mpumalanga  
NW = North West  
NC = Northern Cape  
WC = Western Cape

1. How many individual municipalities are listed in the database?
2. How many individual municipalities are there in Mpumalanga?
3. How many individual municipalities have the word "River" in their name?
4. What percentage of all the staff employed in the Nelson Mandela Metropolitan Municipality are female clerks? (Your answer should be correct to 1 decimal place)
5. How many people are employed in all the municipalities that have "Cape" in their name?
6. A women's rights organisation is concerned that more men than women are employed in municipalities.

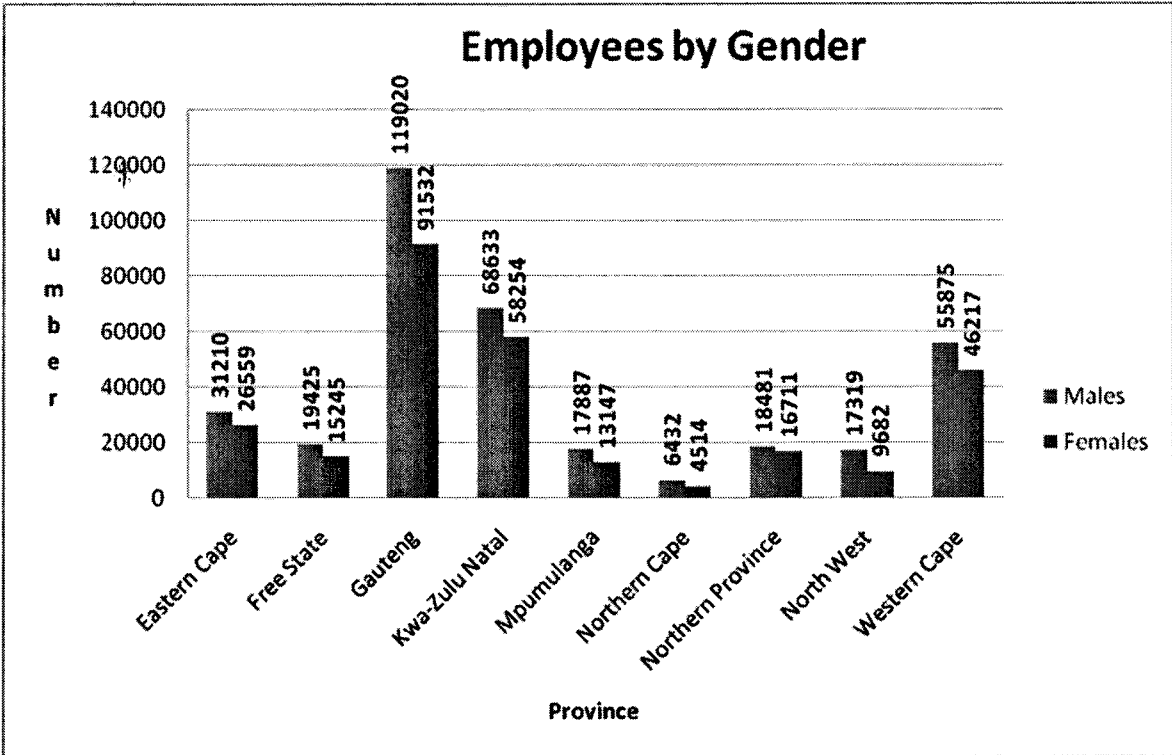
Draw a graph, as in the example below, showing the number of male and female employees in each province. Clearly distinguish between male and female when the graph is printed in black and white.

The values shown on the example graph are NOT correct.

Marking: One mark is allocated for distinguishing between male and female, one mark for the correct numbers and one mark for the correct labels.

Orientation and grid lines are not important and you may use abbreviations for provinces.

[3 marks]



[(5x1)+3]

[33 marks]