



NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2023

INFORMATION TECHNOLOGY: PAPER I

INSTRUCTIONS TO TEACHERS AND CHIEF INVIGILATORS

TO THE TEACHER RESPONSIBLE FOR CANDIDATES OFFERING THE INFORMATION TECHNOLOGY PRACTICAL EXAMINATION

INSTRUCTIONS CONCERNING DATA FILES SUPPLIED IN THE IEB ELECTRONIC POSTBOX: ASSESSMENT MATERIAL

You have been supplied with files in the IEB Electronic Postbox. It is the responsibility of the Information Technology teacher to check **two days before the examination** that they can open the files and that the files can be read by the relevant applications. Printouts of the files are given, starting on page 3 of this document. The details of the files are as follows:

Files for learners: please consult the folders in the IEB Electronic Postbox. These are the important files only.

Section A:

RentMyParking.mdb
RentMyParking _JavaDB.sql
RentMyParking _MySQL.sql
SQLAnswerSheet.rtf
SQLBrowser.exe

Section B:

parkings.txt

If you have any problems with accessing the files in the IEB Electronic Postbox, please notify the IEB immediately.

Individual copies of these files will be required by each candidate writing the Information Technology Practical Examination (Paper I). Please copy the relevant files onto the disk space that will be used exclusively by each candidate.

Confidentiality is of the utmost importance. Under no circumstances should candidates have access to these files before the examination.

After the examination:

1. A backup of each candidate's work must also be made and kept at the school on suitable storage media until the re-marking process has been completed.
2. The candidates must print a code listing of all the programs/classes they have coded. They will be given half an hour to print after the examination has been completed. These printouts must be placed in the electronic bag the question papers were delivered in.

FILES FOR LEARNERS

The following pages contain the hard-copy printouts of the data supplied to each of the candidates.

SECTION A

RentMyParking.mdb

tblCars Table

Data may be formatted differently on your computer depending on its settings.

CarRegistration	Model	Colour	Owner
BBC 123 MP	Volkswagen Golf	Red	Veli Williams
BCY214 FS	Mazda CX-5	Red	Percy Hlanti
BJW 595 NC	Land Rover RangeRover	White	Keagan Makhurubetshi
CA 691-963	Subaru Outback	Black	Karabo Dolly
CA 741-789	BMW 3 Series	White	Innocent Coetzee
CDF 671 GP	Ford Mustang	Blue	Bradley Jordaan
CH 23 BF GP	Honda Civic	Red	Gabriela Tau
CW 478-321	Tesla ModelS	Silver	Bongeka Mothwa
DGE 962 NC	Mercedes-Benz C-Class	Black	Sifiso Nthite
DSM 032 NW	Audi A4	White	Ronwen Makhabane
FBC 852 MP	Jeep Wrangler	Red	Thapelo Moodaly
FGE 357 EC	Nissan Altima	Blue	Thulani Lebusa
FGM 754 NW	Chevrolet Silverado	White	Ruzaigh Zungu
FMJ 541 EC	Lexus RX	Silver	Pride Mokwena
GEY 268 FS	Volvo XC90	Black	Andile Morena
JM 18 HT GP	GMC Sierra	Silver	Karabo Singh
ND 47856	Porsche 911	Red	Sibulele Swart
NN 21514	Jaguar FPACE	Black	Xiluva Salgado
RBG 746 GP	Toyota Camry	Silver	Mamello Jali
RDW 112 GP	Volkswagen Beetle	Blue	Nonhlanhla Erasmus

tblParkings Table

Data may be formatted differently on your computer depending on its settings.

ParkingID	Address	DailyRate	DateAdded	PremiumParking
1	262 Mockingbird Junction	102.5	2021/06/12	Yes
2	439 Daystar Alley	132.5	2018/12/09	No
3	12 Heffernan Center	77.5	2020/07/10	No
4	51 Doe Crossing Street	132.5	2019/07/18	No
5	6 Fisk Lane	75	2020/10/12	No
6	82 Mosinee Court	77.5	2020/06/20	No
7	33234 Waubesa Court	125	2020/01/30	Yes
8	9015 Ohio Place	110	2020/01/20	No
9	2 Little Fleur Way	137.5	2017/12/02	No
10	654 Thackeray Plaza	97.5	2018/11/26	No
11	54 Jenifer Terrace	128	2021/02/19	Yes
12	5 Southridge Alley	87.5	2017/09/23	No
13	535 Goodland Plaza	77.5	2018/01/30	No
14	8415 Sherman Crossing	115	2022/01/22	Yes
15	6796 Straubel Trail	118	2017/09/19	No
16	37047 Nova Road	145	2018/02/14	No
17	039 Colorado Avenue	62	2022/01/07	No
18	176 Hansons Center	150	2018/03/18	Yes
19	41333 Northland Place	82	2019/12/30	Yes
20	5 Kinsman Trail	95	2018/03/31	No
21	02525 Jana Alley	142	2020/03/15	No
22	164 Oneill Hill	77.5	2022/05/28	No
23	15002 Gina Pass	70	2017/12/20	Yes
24	6 Mcbride Plaza	135	2022/01/14	No
25	998 4th Pass	70	2018/09/15	No
26	4566 Lakewood Gardens Court	100	2019/11/19	No
27	66 Crownhardt Plaza	70	2022/04/21	No
28	7529 Clove Terrace	120	2019/03/03	No
29	15695 Vernon Drive	150	2022/02/13	No
30	65 Gale Point	120	2021/07/06	No

tblRentedParkings Table

Data may be formatted differently on your computer depending on its settings.

tblRentedParkings			
CarRegistration	ParkingID	StartDate	EndDate
BBC 123 MP	5	2023/06/10	2023/06/13
BBC 123 MP	12	2023/01/04	2023/01/10
BCY214 FS	13	2023/05/03	2023/05/17
BCY214 FS	15	2023/05/06	2023/05/19
BCY214 FS	16	2023/02/14	2023/03/03
BJW 595 NC	15	2023/01/30	2023/02/06
BJW 595 NC	24	2023/04/23	2023/04/28
CA 691-963	1	2023/09/11	2023/09/26
CA 691-963	13	2023/04/26	2023/05/01
CA 741-789	18	2023/04/12	2023/04/26
CW 478-321	2	2023/09/23	2023/10/05
CW 478-321	18	2023/01/16	2023/01/21
DGE 962 NC	3	2023/08/23	2023/09/11
DGE 962 NC	4	2023/04/10	2023/04/28
DSM 032 NW	13	2023/05/27	2023/05/30
DSM 032 NW	20	2023/04/21	2023/04/29
FBC 852 MP	4	2023/08/21	2023/08/28
FBC 852 MP	10	2023/07/11	2023/07/25
FGE 357 EC	18	2023/09/10	2023/09/29
FGE 357 EC	20	2023/08/21	2023/08/31
FGM 754 NW	10	2023/03/05	2023/03/21
FGM 754 NW	30	2023/03/24	2023/04/12
FMJ 541 EC	15	2023/06/09	2023/06/16
FMJ 541 EC	29	2023/09/18	2023/09/23
GEY 268 FS	6	2023/09/19	2023/09/28
GEY 268 FS	27	2023/05/27	2023/06/01
NN 21514	2	2023/01/09	2023/01/27

RentMyParking_JavaDB.Sql

```
CREATE TABLE tblCars (  
  CarRegistration VARCHAR(15) NOT NULL PRIMARY KEY ,  
  Model VARCHAR(60),  
  Colour VARCHAR(60),  
  Owner VARCHAR(60)  
);  
  
CREATE TABLE tblParkings (  
  ParkingID INTEGER NOT NULL PRIMARY KEY  
  GENERATED ALWAYS AS IDENTITY  
  (START WITH 1, INCREMENT BY 1),  
  Address VARCHAR(60),  
  DailyRate DOUBLE,  
  DateAdded Date,  
  PremiumParking BOOLEAN  
);  
  
CREATE TABLE tblRentedParkings (  
  CarRegistration VARCHAR(15) NOT NULL,  
  ParkingID INTEGER NOT NULL,  
  StartDate Date,  
  EndDate Date,  
  PRIMARY KEY (CarRegistration, ParkingID)  
);  
  
INSERT INTO tblCars (CarRegistration,Model,Colour,Owner)  
VALUES  
('BBC 123 MP','Volkswagen Golf','Red','Veli Williams'),  
('BCY214 FS','Mazda CX-5','Red','Percy Hlanti'),  
('BJW 595 NC','Land Rover RangeRover','White','Keagan  
Makhurubetshi'),  
('CA 691-963','Subaru Outback','Black','Karabo Dolly'),  
('CA 741-789','BMW 3 Series','White','Innocent Coetzee'),  
('CDF 671 GP','Ford Mustang','Blue','Bradley Jordaan'),  
('CH 23 BF GP','Honda Civic','Red','Gabriela Tau'),  
('CW 478-321','Tesla ModelS','Silver','Bongeka Mothwa'),  
('DGE 962 NC','Mercedes-Benz C-Class','Black','Sifiso Nthite'),  
('DSM 032 NW','Audi A4','White','Ronwen Makhabane'),  
('FBC 852 MP','Jeep Wrangler','Red','Thapelo Moodaly'),  
('FGE 357 EC','Nissan Altima','Blue','Thulani Lebusa'),  
('FGM 754 NW','Chevrolet Silverado','White','Ruzaigh Zungu'),  
('FMJ 541 EC','Lexus RX','Silver','Pride Mokwena'),  
('GEY 268 FS','Volvo XC90','Black','Andile Morena'),  
('JM 18 HT GP','GMC Sierra','Silver','Karabo Singh'),  
('ND 47856 ','Porsche 911','Red','Sibulele Swart'),  
('NN 21514','Jaguar FPACE','Black','Xiluva Salgado'),  
('RBG 746 GP','Toyota Camry','Silver','Mamello Jali'),  
('RDW 112 GP','Volkswagen Beetle','Blue','Nonhlanhla Erasmus');
```

```
INSERT INTO
tblParkings (Address,DailyRate,DateAdded,PremiumParking)
VALUES
('262 Mockingbird Junction',102.5,'2021-06-12',TRUE),
('439 Daystar Alley',132.5,'2018-12-09',FALSE),
('12 Heffernan Center',77.5,'2020-07-10',FALSE),
('51 Doe Crossing Street',132.5,'2019-07-18',FALSE),
('6 Fisk Lane',75,'2020-10-12',FALSE),
('82 Mosinee Court',77.5,'2020-06-20',FALSE),
('33234 Waubesa Court',125,'2020-01-30',TRUE),
('9015 Ohio Place',110,'2020-01-20',FALSE),
('2 Little Fleur Way',137.5,'2017-12-02',FALSE),
('654 Thackeray Plaza',97.5,'2018-11-26',FALSE),
('54 Jenifer Terrace',128,'2021-02-19',TRUE),
('5 Southridge Alley',87.5,'2017-09-23',FALSE),
('535 Goodland Plaza',77.5,'2018-01-30',FALSE),
('8415 Sherman Crossing',115,'2022-01-22',TRUE),
('6796 Straubel Trail',118,'2017-09-19',FALSE),
('37047 Nova Road',145,'2018-02-14',FALSE),
('039 Colorado Avenue',62,'2022-01-07',FALSE),
('176 Hansons Center',150,'2018-03-18',TRUE),
('41333 Northland Place',82,'2019-12-30',TRUE),
('5 Kinsman Trail',95,'2018-03-31',FALSE),
('02525 Jana Alley',142,'2020-03-15',FALSE),
('164 Oneill Hill',77.5,'2022-05-28',FALSE),
('15002 Gina Pass',70,'2017-12-20',TRUE),
('6 Mcbride Plaza',135,'2022-01-14',FALSE),
('998 4th Pass',70,'2018-09-15',FALSE),
('4566 Lakewood Gardens Court',100,'2019-11-19',FALSE),
('66 Crownhardt Plaza',70,'2022-04-21',FALSE),
('7529 Clove Terrace',120,'2019-03-03',FALSE),
('15695 Vernon Drive',150,'2022-02-13',FALSE),
('65 Gale Point',120,'2021-07-06',FALSE);
```

```
INSERT INTO
tblRentedParkings (CarRegistration,ParkingID,StartDate,EndDate)
VALUES
('BBC 123 MP',5,'2023-06-10','2023-06-13'),
('BBC 123 MP',12,'2023-01-04','2023-01-10'),
('BCY214 FS',13,'2023-05-03','2023-05-17'),
('BCY214 FS',15,'2023-05-06','2023-05-19'),
('BCY214 FS',16,'2023-02-14','2023-03-03'),
('BJW 595 NC',15,'2023-01-30','2023-02-06'),
('BJW 595 NC',24,'2023-04-23','2023-04-28'),
('CA 691-963',1,'2023-09-11','2023-09-26'),
('CA 691-963',13,'2023-04-26','2023-05-01'),
('CA 741-789',18,'2023-04-12','2023-04-26'),
('CW 478-321',2,'2023-09-23','2023-10-05'),
('CW 478-321',18,'2023-01-16','2023-01-21'),
('DGE 962 NC',3,'2023-08-23','2023-09-11'),
('DGE 962 NC',4,'2023-04-10','2023-04-28'),
('DSM 032 NW',13,'2023-05-27','2023-05-30'),
```

```
('DSM 032 NW',20,'2023-04-21','2023-04-29'),  
( 'FBC 852 MP',4,'2023-08-21','2023-08-28'),  
( 'FBC 852 MP',10,'2023-07-11','2023-07-25'),  
( 'FGE 357 EC',18,'2023-09-10','2023-09-29'),  
( 'FGE 357 EC',20,'2023-08-21','2023-08-31'),  
( 'FGM 754 NW',10,'2023-03-05','2023-03-21'),  
( 'FGM 754 NW',30,'2023-03-24','2023-04-12'),  
( 'FMJ 541 EC',15,'2023-06-09','2023-06-16'),  
( 'FMJ 541 EC',29,'2023-09-18','2023-09-23'),  
( 'GEY 268 FS',6,'2023-09-19','2023-09-28'),  
( 'GEY 268 FS',27,'2023-05-27','2023-06-01'),  
( 'NN 21514',2,'2023-01-09','2023-01-27');
```

RentMyParking_MySQL.sql

```
CREATE TABLE tblCars (  
CarRegistration VARCHAR(15) NOT NULL PRIMARY KEY ,  
Model VARCHAR(60),  
Colour VARCHAR(60),  
Owner VARCHAR(60)  
);  
  
CREATE TABLE tblParkings (  
ParkingID INT PRIMARY KEY AUTO_INCREMENT,  
Address VARCHAR(60),  
DailyRate DOUBLE,  
DateAdded Date,  
PremiumParking BOOLEAN  
);  
  
CREATE TABLE tblRentedParkings (  
CarRegistration VARCHAR(15) NOT NULL,  
ParkingID INT NOT NULL,  
StartDate Date,  
EndDate Date,  
PRIMARY KEY (CarRegistration, ParkingID)  
);  
  
INSERT INTO tblCars (CarRegistration,Model,Colour,Owner)  
VALUES  
( 'BBC 123 MP','Volkswagen Golf','Red','Veli Williams'),  
( 'BCY214 FS','Mazda CX-5','Red','Percy Hlanti'),  
( 'BJW 595 NC','Land Rover RangeRover','White','Keagan  
Makhurubetshi'),  
( 'CA 691-963','Subaru Outback','Black','Karabo Dolly'),  
( 'CA 741-789','BMW 3 Series','White','Innocent Coetzee'),  
( 'CDF 671 GP','Ford Mustang','Blue','Bradley Jordaan'),  
( 'CH 23 BF GP','Honda Civic','Red','Gabriela Tau'),  
( 'CW 478-321','Tesla Models','Silver','Bongeka Mothwa'),  
( 'DGE 962 NC','Mercedes-Benz C-Class','Black','Sifiso Nthite'),  
( 'DSM 032 NW','Audi A4','White','Ronwen Makhabane'),  
( 'FBC 852 MP','Jeep Wrangler','Red','Thapelo Moodaly'),
```



```
('FGE 357 EC','Nissan Altima','Blue','Thulani Lebusa'),  
( 'FGM 754 NW','Chevrolet Silverado','White','Ruzaigh Zungu'),  
( 'FMJ 541 EC','Lexus RX','Silver','Pride Mokwena'),  
( 'GEY 268 FS','Volvo XC90','Black','Andile Morena'),  
( 'JM 18 HT GP','GMC Sierra','Silver','Karabo Singh'),  
( 'ND 47856 ','Porsche 911','Red','Sibulele Swart'),  
( 'NN 21514','Jaguar FPACE','Black','Xiluva Salgado'),  
( 'RBG 746 GP','Toyota Camry','Silver','Mamello Jali'),  
( 'RDW 112 GP','Volkswagen Beetle','Blue','Nonhlanhla Erasmus');
```

INSERT INTO

tblParkings(Address,DailyRate,DateAdded,PremiumParking)

VALUES

```
('262 Mockingbird Junction',102.5,'2021-06-12',TRUE),  
( '439 Daystar Alley',132.5,'2018-12-09',FALSE),  
( '12 Heffernan Center',77.5,'2020-07-10',FALSE),  
( '51 Doe Crossing Street',132.5,'2019-07-18',FALSE),  
( '6 Fisk Lane',75,'2020-10-12',FALSE),  
( '82 Mosinee Court',77.5,'2020-06-20',FALSE),  
( '33234 Waubesa Court',125,'2020-01-30',TRUE),  
( '9015 Ohio Place',110,'2020-01-20',FALSE),  
( '2 Little Fleur Way',137.5,'2017-12-02',FALSE),  
( '654 Thackeray Plaza',97.5,'2018-11-26',FALSE),  
( '54 Jenifer Terrace',128,'2021-02-19',TRUE),  
( '5 Southridge Alley',87.5,'2017-09-23',FALSE),  
( '535 Goodland Plaza',77.5,'2018-01-30',FALSE),  
( '8415 Sherman Crossing',115,'2022-01-22',TRUE),  
( '6796 Straubel Trail',118,'2017-09-19',FALSE),  
( '37047 Nova Road',145,'2018-02-14',FALSE),  
( '039 Colorado Avenue',62,'2022-01-07',FALSE),  
( '176 Hansons Center',150,'2018-03-18',TRUE),  
( '41333 Northland Place',82,'2019-12-30',TRUE),  
( '5 Kinsman Trail',95,'2018-03-31',FALSE),  
( '02525 Jana Alley',142,'2020-03-15',FALSE),  
( '164 Oneill Hill',77.5,'2022-05-28',FALSE),  
( '15002 Gina Pass',70,'2017-12-20',TRUE),  
( '6 McBride Plaza',135,'2022-01-14',FALSE),  
( '998 4th Pass',70,'2018-09-15',FALSE),  
( '4566 Lakewood Gardens Court',100,'2019-11-19',FALSE),  
( '66 Crownhardt Plaza',70,'2022-04-21',FALSE),  
( '7529 Clove Terrace',120,'2019-03-03',FALSE),  
( '15695 Vernon Drive',150,'2022-02-13',FALSE),  
( '65 Gale Point',120,'2021-07-06',FALSE);
```

INSERT INTO

tblRentedParkings(CarRegistration,ParkingID,StartDate,EndDate)

VALUES

```
('BBC 123 MP',5,'2023-06-10','2023-06-13'),  
( 'BBC 123 MP',12,'2023-01-04','2023-01-10'),  
( 'BCY214 FS',13,'2023-05-03','2023-05-17'),  
( 'BCY214 FS',15,'2023-05-06','2023-05-19'),
```

('BCY214 FS',16,'2023-02-14','2023-03-03'),
('BJW 595 NC',15,'2023-01-30','2023-02-06'),
('BJW 595 NC',24,'2023-04-23','2023-04-28'),
('CA 691-963',1,'2023-09-11','2023-09-26'),
('CA 691-963',13,'2023-04-26','2023-05-01'),
('CA 741-789',18,'2023-04-12','2023-04-26'),
('CW 478-321',2,'2023-09-23','2023-10-05'),
('CW 478-321',18,'2023-01-16','2023-01-21'),
('DGE 962 NC',3,'2023-08-23','2023-09-11'),
('DGE 962 NC',4,'2023-04-10','2023-04-28'),
('DSM 032 NW',13,'2023-05-27','2023-05-30'),
('DSM 032 NW',20,'2023-04-21','2023-04-29'),
('FBC 852 MP',4,'2023-08-21','2023-08-28'),
('FBC 852 MP',10,'2023-07-11','2023-07-25'),
('FGE 357 EC',18,'2023-09-10','2023-09-29'),
('FGE 357 EC',20,'2023-08-21','2023-08-31'),
('FGM 754 NW',10,'2023-03-05','2023-03-21'),
('FGM 754 NW',30,'2023-03-24','2023-04-12'),
('FMJ 541 EC',15,'2023-06-09','2023-06-16'),
('FMJ 541 EC',29,'2023-09-18','2023-09-23'),
('GEY 268 FS',6,'2023-09-19','2023-09-28'),
('GEY 268 FS',27,'2023-05-27','2023-06-01'),
('NN 21514',2,'2023-01-09','2023-01-27');

SECTION B

parkings.txt

GEY 268 FS;2023/09/01 10:51;2023/09/01 12:01
RBG 746 GP;2023/09/03 05:57;2023/09/04 13:03;C3
BBC 123 MP;2023/09/03 11:18;2023/09/04 16:11
CA 691-963;2023/09/04 05:40;2023/09/04 12:43;D4
CHZ 231 L;2023/09/04 06:12;2023/09/04 17:15
FBC 852 MP;2023/09/04 07:36;2023/09/06 16:39;B9
RBG 746 GP;2023/09/05 05:55;2023/09/11 06:16;C3
BBC 123 MP;2023/09/05 09:30;2023/09/05 14:45
CA 691-963;2023/09/06 06:56;2023/09/07 05:06;D4
BBC 123 MP;2023/09/07 09:17;2023/09/08 01:10
CHZ 231 L;2023/09/07 10:05;2023/09/08 10:25
GEY 268 FS;2023/09/07 12:05;2023/09/07 12:42
CA 691-963;2023/09/08 07:35;2023/09/09 03:49;D4
BJW 595 NC;2023/09/09 09:58;2023/09/09 13:20
FBC 852 MP;2023/09/09 11:52;2023/09/13 16:43;B9
RBG 746 GP;2023/09/11 10:39;2023/09/11 20:37;C3
CA 691-963;2023/09/11 13:07;2023/09/11 19:43;D4
GEY 268 FS;2023/09/11 15:00;2023/09/11 21:01
GEY 268 FS;2023/09/13 05:27;2023/09/13 16:22
BJW 595 NC;2023/09/13 06:29;2023/09/13 21:03
FBC 852 MP;2023/09/13 08:37;2023/09/14 05:53;B9
BBC 123 MP;2023/09/14 09:26;2023/09/14 15:26
RBG 746 GP;2023/09/14 14:27;2023/09/15 14:40;C3
BJW 595 NC;2023/09/16 07:49;2023/09/16 12:20
RBG 746 GP;2023/09/17 06:39;2023/09/18 05:12;C3
GEY 268 FS;2023/09/17 12:21;2023/09/17 18:03
CHZ 231 L;2023/09/18 11:01;2023/09/18 11:53
CHZ 231 L;2023/09/20 16:43;2023/09/20 17:33
BJW 595 NC;2023/09/21 11:53;2023/09/22 12:16
CA 691-963;2023/09/24 07:14;2023/09/29 08:04;D4
ABC 123 GP;2023/09/25 08:10;2023/09/27 14:22;B2