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:
  XSpaceSystems.mdb
  XSpaceSystems _JavaDB.sql
  XSpaceSystems _MySQL.sql
  SQLAnswerSheet.rtf
  SQLBrowser.exe

Section B:
  crewmembers.txt
  testResults.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

XSpaceSystems_Access.mdb

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

CaptainID	Fullname	DateHired	combatTraining
1	Neliswa Tlailane	2006-08-31	Yes
2	Themba Morena	2007-03-28	Yes
3	Mamello Mthandi	2009-03-15	No
4	Lyle Foster	2010-08-20	Yes
5	Bongeka Makhurubetshi	2006-10-20	Yes
6	Oratile Tshabalala	2010-05-17	No
7	Ben Motshwari	2009-02-12	Yes
8	Innocent Maela	2007-09-16	No
9	Thapelo Erasmus	2008-09-22	Yes
10	Gabriela Salgado	2005-02-11	No
11	Bongani Zungu	2010-08-22	No
12	Pride Kgoale	2010-09-07	No
13	Thulani Xulu	2006-11-04	No
14	Siyanda Gamildien	2010-02-05	No
15	Andile Makhabane	2008-05-23	No
16	Andile Hlatshwayo	2005-09-28	Yes
17	Kermit Phete	2011-03-04	Yes
18	Sipho Hlanti	2010-12-24	Yes
19	Nonhlanhla Ndlangisa	2009-08-12	No
20	Ronwen Williams	2011-04-22	No
21	Veli Mothwa	2007-08-31	No
22	Koketso Gamede	2008-09-02	Yes
23	Thulani Jali	2008-09-13	No
24	Sifiso Mbule	2008-10-03	Yes
25	Kaylin Nthite	2010-11-17	No
26	Itumeleng Khune	2010-09-18	No
27	Percy Serero	2008-07-31	Yes
28	Dean Furman	2008-02-23	Yes
29	Craig Tau	2006-09-24	No
30	Nomvula Moodaly	2009-03-01	No
31	Kaylyn Holweni	2008-03-31	No
32	Robyn Luthuli	2010-04-29	No
33	Thibang Martin	2008-05-17	No

34	Keagan Dolly	2010-03-18	No
35	Hildah Swart	2006-04-28	Yes
36	Ongeziwe Mokwena	2007-04-21	No
37	Lonathemba Dhlamini	2008-10-31	Yes
38	Karabo Dlamini	2009-08-16	Yes
39	Mosa Lebusa	2005-06-08	No
40	Ruzaigh Zwane	2010-10-22	No
41	Rivaldo Coetzee	2009-07-08	Yes
42	Xiluva Jordaan	2010-09-08	Yes
43	Sibulele Mhlongo	2009-02-27	No
44	Luther Singh	2010-04-30	No
45	Karabo Magaia	2006-08-09	Yes
46	Bradley Grobler	2010-04-12	No

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

SpaceshipID	Model	Speed	FuelConsumption	FuelCapacity
1	T941	5.49	656	8659
2	M793	3.03	314	4540
3	M327	3.3	970	3321
4	S766	4.29	811	5070
5	T666	3.97	129	8016
6	S379	3.96	956	1933
7	T766	1.48	894	4565
8	T494	2.87	708	7654
9	M366	2.42	639	2174
10	S336	5.58	274	7064
11	T419	4.6	610	9273
12	S390	5.23	115	5820
13	T288	2.51	466	6922
14	M641	3.74	542	8515
15	S178	4.16	943	3183
16	M256	2.87	446	5131
17	M880	2.23	887	5854
18	S174	4.21	776	9588
19	T204	2.81	300	2421
20	M763	1.71	362	6337
21	T367	2.33	457	6732
22	T257	2.05	239	6948
23	T313	1.32	282	4188
24	M313	5.34	768	3350
25	T382	1.56	226	7807
26	M845	4.29	845	4617

27	S529	1.5	326	7141
28	S897	5.17	454	7460
29	S406	1.5	486	9248
30	S956	2.02	124	9860

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

MissionID	CaptainID	SpaceShipID	MainObjective	DepartureDate	Distance	SolarSystem
1	8	28	Military Exercise	2024-04-19	6	X-645G
2	18	4	Mining	2021-11-07	3	F-331B
3	30	18	Military Exercise	2022-07-26	4	U-184A
4	16	8	Military Exercise	2024-04-20	9	F-306E
5	20	16	Mining	2025-05-01	7	F-479C
6	23	27	Exploration	2025-12-10	10	H-178D
7	19	2	Exploration	2025-12-12	2	Q-987C
8	15	3	Exploration	2021-09-20	7	E-615B
9	33	23	Military Exercise	2026-10-01	1	I-179G
10	2	5	Rescue	2024-10-13	13	W-695B
11	37	13	Scientific	2023-01-25	12	W-441F
12	14	6	Exploration	2021-10-28	4	U-965C
13	26	29	Scientific	2023-07-06	1	K-978D
14	45	14	Military Exercise	2021-05-15	15	X-642G
15	34	24	Scientific	2024-10-27	4	C-273E
16	44	11	Military Exercise	2024-03-21	3	H-937B
17	9	1	Military Exercise	2025-10-24	3	V-594E
18	46	10	Scientific	2024-07-29	1	L-809E
19	5	17	Scientific	2023-08-17	12	U-734E
20	13	19	Scientific	2024-11-06	11	J-565A
21	43	7	Scientific	2021-09-27	13	B-411E
22	35	12	Scientific	2022-12-11	1	O-492B
23	29	22	Military Exercise	2022-03-27	15	Z-125D
24	42	15	Military Exercise	2023-11-17	14	T-978G
25	41	30	Exploration	2022-06-01	8	W-311C
26	39	21	Military Exercise	2023-02-04	8	X-546B
27	4	20	Military Exercise	2022-07-25	9	V-254B
28	32	25	Mining	2022-06-20	2	S-246F
29	7	9	Scientific	2021-05-24	3	W-589D
30	40	26	Exploration	2024-10-25	13	Z-783G

XSpaceSystems_JavaDB.Sql

```sql
CREATE TABLE tblCaptains (
CaptainID INTEGER NOT NULL PRIMARY KEY
GENERATED ALWAYS AS IDENTITY
(START WITH 1, INCREMENT BY 1),
FullName VARCHAR(60),
DateHired DATE,
CombatTraining BOOLEAN
);

CREATE TABLE tblSpaceships (
SpaceshipID INTEGER NOT NULL PRIMARY KEY
GENERATED ALWAYS AS IDENTITY
(START WITH 1, INCREMENT BY 1),
Model VARCHAR(60),
Speed DOUBLE,
FuelConsumption INTEGER,
FuelCapacity INTEGER
);

CREATE TABLE tblMissions (
MissionID INTEGER NOT NULL PRIMARY KEY
GENERATED ALWAYS AS IDENTITY
(START WITH 1, INCREMENT BY 1),
CaptainID INTEGER,
SpaceshipID INTEGER,
MainObjective VARCHAR(60),
DepartureDate DATE,
Distance INTEGER,
SolarSystem VARCHAR(60)
);


INSERT INTO tblCaptains (FullName, DateHired , CombatTraining)
VALUES
('Neliswa Tlailane','2006-08-31',TRUE),
('Themba Morena','2007-03-28',TRUE),
('Mamello Mthandi','2009-03-15',FALSE),
('Lyle Foster','2010-08-20',TRUE),
('Bongeka Makhurubetshi','2006-10-20',TRUE),
('Oratile Tshabalala','2010-05-17',FALSE),
('Ben Motshwari','2009-02-12',TRUE),
('Innocent Maela','2007-09-16',FALSE),
('Thapelo Erasmus','2008-09-22',TRUE),
('Gabriela Salgado','2005-02-11',FALSE),
('Bongani Zungu','2010-08-22',FALSE),
('Pride Kgoale','2010-09-07',FALSE),
('Thulani Xulu','2006-11-04',FALSE),
('Siyanda Gamildien','2010-02-05',FALSE),
('Andile Makhabane','2008-05-23',FALSE),
('Andile Hlatshwayo','2005-09-28',TRUE),
('Kermit Phete','2011-03-04',TRUE),
```

```
('Sipho Hlanti','2010-12-24',TRUE),
('Nonhlanhla Ndlangisa','2009-08-12',FALSE),
('Ronwen Williams','2011-04-22',FALSE),
('Veli Mothwa','2007-08-31',FALSE),
('Koketso Gamede','2008-09-02',TRUE),
('Thulani Jali','2008-09-13',FALSE),
('Sifiso Mbule','2008-10-03',TRUE),
('Kaylin Nthite','2010-11-17',FALSE),
('Itumeleng Khune','2010-09-18',FALSE),
('Percy Serero','2008-07-31',TRUE),
('Dean Furman','2008-02-23',TRUE),
('Craig Tau','2006-09-24',FALSE),
('Nomvula Moodaly','2009-03-01',FALSE),
('Kaylyn Holweni','2008-03-31',FALSE),
('Robyn Luthuli','2010-04-29',FALSE),
('Thibang Martin','2008-05-17',FALSE),
('Keagan Dolly','2010-03-18',FALSE),
('Hildah Swart','2006-04-28',TRUE),
('Ongeziwe Mokwena','2007-04-21',FALSE),
('Lonathemba Dhlamini','2008-10-31',TRUE),
('Karabo Dlamini','2009-08-16',TRUE),
('Mosa Lebusa','2005-06-08',FALSE),
('Ruzaigh Zwane','2010-10-22',FALSE),
('Rivaldo Coetzee','2009-07-08',TRUE),
('Xiluva Jordaan','2010-09-08',TRUE),
('Sibulele Mhlongo','2009-02-27',FALSE),
('Luther Singh','2010-04-30',FALSE),
('Karabo Magaia','2006-08-09',TRUE),
('Bradley Grobler','2010-04-12',FALSE);


INSERT INTO tblSpaceships (Model, Speed, FuelConsumption,
FuelCapacity) VALUES
('T941',5.49,656,8659),
('M793',3.03,314,4540),
('M327',3.3,970,3321),
('S766',4.29,811,5070),
('T666',3.97,129,8016),
('S379',3.96,956,1933),
('T766',1.48,894,4565),
('T494',2.87,708,7654),
('M366',2.42,639,2174),
('S336',5.58,274,7064),
('T419',4.6,610,9273),
('S390',5.23,115,5820),
('T288',2.51,466,6922),
('M641',3.74,542,8515),
('S178',4.16,943,3183),
('M256',2.87,446,5131),
('M880',2.23,887,5854),
('S174',4.21,776,9588),
('T204',2.81,300,2421),
('M763',1.71,362,6337),
```

```
('T367',2.33,457,6732),
('T257',2.05,239,6948),
('T313',1.32,282,4188),
('M313',5.34,768,3350),
('T382',1.56,226,7807),
('M845',4.29,845,4617),
('S529',1.5,326,7141),
('S897',5.17,454,7460),
('S406',1.5,486,9248),
('S956',2.02,124,9860);


INSERT INTO tblMissions (CaptainID, SpaceshipID , MainObjective ,
DepartureDate , Distance, SolarSystem) VALUES
(8,28,'Military Exercise','2024-04-19',6,'X-645G'),
(18,4,'Mining','2021-11-07',3,'F-331B'),
(30,18,'Military Exercise','2022-07-26',4,'U-184A'),
(16,8,'Military Exercise','2024-04-20',9,'F-306E'),
(20,16,'Mining','2025-05-01',7,'F-479C'),
(23,27,'Exploration','2025-12-10',10,'H-178D'),
(19,2,'Exploration','2025-12-12',2,'Q-987C'),
(15,3,'Exploration','2021-09-20',7,'E-615B'),
(33,23,'Military Exercise','2026-10-01',1,'I-179G'),
(2,5,'Rescue','2024-10-13',13,'W-695B'),
(37,13,'Scientific','2023-01-25',12,'W-441F'),
(14,6,'Exploration','2021-10-28',4,'U-965C'),
(26,29,'Scientific','2023-07-06',1,'K-978D'),
(45,14,'Military Exercise','2021-05-15',15,'X-642G'),
(34,24,'Scientific','2024-10-27',4,'C-273E'),
(44,11,'Military Exercise','2024-03-21',3,'H-937B'),
(9,1,'Military Exercise','2025-10-24',3,'V-594E'),
(46,10,'Scientific','2024-07-29',1,'L-809E'),
(5,17,'Scientific','2023-08-17',12,'U-734E'),
(13,19,'Scientific','2024-11-06',11,'J-565A'),
(43,7,'Scientific','2021-09-27',13,'B-411E'),
(35,12,'Scientific','2022-12-11',1,'O-492B'),
(29,22,'Military Exercise','2022-03-27',15,'Z-125D'),
(42,15,'Military Exercise','2023-11-17',14,'T-978G'),
(41,30,'Exploration','2022-06-01',8,'W-311C'),
(39,21,'Military Exercise','2023-02-04',8,'X-546B'),
(4,20,'Military Exercise','2022-07-25',9,'V-254B'),
(32,25,'Mining','2022-06-20',2,'S-246F'),
(7,9,'Scientific','2021-05-24',3,'W-589D'),
(40,26,'Exploration','2024-10-25',13,'Z-783G');
```

XSpaceSystems_MySQL.sql

```sql
CREATE TABLE tblCaptains (
CaptainID INT PRIMARY KEY AUTO_INCREMENT,
FullName VARCHAR(60),
DateHired DATE,
CombatTraining BOOLEAN
);

CREATE TABLE tblSpaceships (
SpaceshipID INT PRIMARY KEY AUTO_INCREMENT,
Model VARCHAR(60),
Speed DOUBLE,
FuelConsumption INT,
FuelCapacity INT
);

CREATE TABLE tblMissions (
MissionID INT PRIMARY KEY AUTO_INCREMENT,
CaptainID INT,
SpaceshipID INT,
MainObjective VARCHAR(60),
DepartureDate DATE,
Distance INT,
SolarSystem VARCHAR(60)
);

INSERT INTO tblCaptains (FullName, DateHired , CombatTraining)
VALUES
('Neliswa Tlailane','2006-08-31',TRUE),
('Themba Morena','2007-03-28',TRUE),
('Mamello Mthandi','2009-03-15',FALSE),
('Lyle Foster','2010-08-20',TRUE),
('Bongeka Makhurubetshi','2006-10-20',TRUE),
('Oratile Tshabalala','2010-05-17',FALSE),
('Ben Motshwari','2009-02-12',TRUE),
('Innocent Maela','2007-09-16',FALSE),
('Thapelo Erasmus','2008-09-22',TRUE),
('Gabriela Salgado','2005-02-11',FALSE),
('Bongani Zungu','2010-08-22',FALSE),
('Pride Kgoale','2010-09-07',FALSE),
('Thulani Xulu','2006-11-04',FALSE),
('Siyanda Gamildien','2010-02-05',FALSE),
('Andile Makhabane','2008-05-23',FALSE),
('Andile Hlatshwayo','2005-09-28',TRUE),
('Kermit Phete','2011-03-04',TRUE),
('Sipho Hlanti','2010-12-24',TRUE),
('Nonhlanhla Ndlangisa','2009-08-12',FALSE),
('Ronwen Williams','2011-04-22',FALSE),
('Veli Mothwa','2007-08-31',FALSE),
('Koketso Gamede','2008-09-02',TRUE),
('Thulani Jali','2008-09-13',FALSE),
('Sifiso Mbule','2008-10-03',TRUE),
```

```
('Kaylin Nthite','2010-11-17',FALSE),
('Itumeleng Khune','2010-09-18',FALSE),
('Percy Serero','2008-07-31',TRUE),
('Dean Furman','2008-02-23',TRUE),
('Craig Tau','2006-09-24',FALSE),
('Nomvula Moodaly','2009-03-01',FALSE),
('Kaylyn Holweni','2008-03-31',FALSE),
('Robyn Luthuli','2010-04-29',FALSE),
('Thibang Martin','2008-05-17',FALSE),
('Keagan Dolly','2010-03-18',FALSE),
('Hildah Swart','2006-04-28',TRUE),
('Ongeziwe Mokwena','2007-04-21',FALSE),
('Lonathemba Dhlamini','2008-10-31',TRUE),
('Karabo Dlamini','2009-08-16',TRUE),
('Mosa Lebusa','2005-06-08',FALSE),
('Ruzaigh Zwane','2010-10-22',FALSE),
('Rivaldo Coetzee','2009-07-08',TRUE),
('Xiluva Jordaan','2010-09-08',TRUE),
('Sibulele Mhlongo','2009-02-27',FALSE),
('Luther Singh','2010-04-30',FALSE),
('Karabo Magaia','2006-08-09',TRUE),
('Bradley Grobler','2010-04-12',FALSE);

INSERT INTO tblSpaceships (Model, Speed, FuelConsumption,
FuelCapacity) VALUES
('T941',5.49,656,8659),
('M793',3.03,314,4540),
('M327',3.3,970,3321),
('S766',4.29,811,5070),
('T666',3.97,129,8016),
('S379',3.96,956,1933),
('T766',1.48,894,4565),
('T494',2.87,708,7654),
('M366',2.42,639,2174),
('S336',5.58,274,7064),
('T419',4.6,610,9273),
('S390',5.23,115,5820),
('T288',2.51,466,6922),
('M641',3.74,542,8515),
('S178',4.16,943,3183),
('M256',2.87,446,5131),
('M880',2.23,887,5854),
('S174',4.21,776,9588),
('T204',2.81,300,2421),
('M763',1.71,362,6337),
('T367',2.33,457,6732),
('T257',2.05,239,6948),
('T313',1.32,282,4188),
('M313',5.34,768,3350),
('T382',1.56,226,7807),
('M845',4.29,845,4617),
('S529',1.5,326,7141),
('S897',5.17,454,7460),
```

```
('S406',1.5,486,9248),
('S956',2.02,124,9860);

INSERT INTO tblMissions (CaptainID, SpaceshipID , MainObjective ,
DepartureDate , Distance, SolarSystem) VALUES
(8,28,'Military Exercise','2024-04-19',6,'X-645G'),
(18,4,'Mining','2021-11-07',3,'F-331B'),
(30,18,'Military Exercise','2022-07-26',4,'U-184A'),
(16,8,'Military Exercise','2024-04-20',9,'F-306E'),
(20,16,'Mining','2025-05-01',7,'F-479C'),
(23,27,'Exploration','2025-12-10',10,'H-178D'),
(19,2,'Exploration','2025-12-12',2,'Q-987C'),
(15,3,'Exploration','2021-09-20',7,'E-615B'),
(33,23,'Military Exercise','2026-10-01',1,'I-179G'),
(2,5,'Rescue','2024-10-13',13,'W-695B'),
(37,13,'Scientific','2023-01-25',12,'W-441F'),
(14,6,'Exploration','2021-10-28',4,'U-965C'),
(26,29,'Scientific','2023-07-06',1,'K-978D'),
(45,14,'Military Exercise','2021-05-15',15,'X-642G'),
(34,24,'Scientific','2024-10-27',4,'C-273E'),
(44,11,'Military Exercise','2024-03-21',3,'H-937B'),
(9,1,'Military Exercise','2025-10-24',3,'V-594E'),
(46,10,'Scientific','2024-07-29',1,'L-809E'),
(5,17,'Scientific','2023-08-17',12,'U-734E'),
(13,19,'Scientific','2024-11-06',11,'J-565A'),
(43,7,'Scientific','2021-09-27',13,'B-411E'),
(35,12,'Scientific','2022-12-11',1,'O-492B'),
(29,22,'Military Exercise','2022-03-27',15,'Z-125D'),
(42,15,'Military Exercise','2023-11-17',14,'T-978G'),
(41,30,'Exploration','2022-06-01',8,'W-311C'),
(39,21,'Military Exercise','2023-02-04',8,'X-546B'),
(4,20,'Military Exercise','2022-07-25',9,'V-254B'),
(32,25,'Mining','2022-06-20',2,'S-246F'),
(7,9,'Scientific','2021-05-24',3,'W-589D'),
(40,26,'Exploration','2024-10-25',13,'Z-783G');
```

SECTION B

crewmembers.txt

```
Tayla Wentzel#892#Engineering#2#04/07/2020
Kwagga Kolisi#721#Medical
Nomathamsanqa Geldenhuys#371#Security
Malcolm Malherbe#279#Security
Sibusiso Louw#277#Medical#1#17/07/2020
Francois de Jager#317#Medical
Bongi le Roux#461#Security#3#29/12/2020
Jesse Nyakane#397#Engineering#3#22/09/2019
Lamla Weston#270#Flight
Siviwe Tywaleni#131#Medical#5#20/10/2018
Cindy Ntoyanto#990#Science
Cobus Koch#985#Command#2#12/04/2019
Eben Mapimpi#611#Security
Schalk Mostert#413#Operations#1#20/09/2020
Pieter-Steph Pollard#401#Medical
Vincent Reinach#899#Operations
Francois Smith#542#Science
Tendai de Allende#821#Security#1#26/03/2020
Rachelle Jonga#558#Security
Siphosethu Momoti#529#Operations
Lood de Klerk#981#Flight
Damian Steyn#916#Flight
Asithandile Kula#429#Engineering#1#02/02/2020
Phumeza Grain#187#Security
Damian Kriel#587#Operations
Steven Jantjies#486#Command#4#08/11/2020
Fundiswa Basweni#221#Science
François Marx#230#Operations
Bella Gadu#713#Medical
Elton du Toit#875#Science
Handré du Toit#171#Engineering#2#06/11/2020
Makazole Willemse#634#Science
Thantaswa Nobele#904#Command#4#08/10/2019
Warrick Snyman#523#Medical
Celeste Faleni#853#Engineering#5#04/08/2020
Ziyanda Tshingana#947#Flight
Portia Vazi#663#Operations
Veroeshka Benele#682#Engineering
Franco Kolbe#390#Medical
Reginald Vermeulen#766#Command#1#04/01/2019
Shona-Leah Williams#425#Operations
Frans Am#318#Engineering
Lorinda Brown#512#Command
Mandisa Booi#590#Flight
Herschel Mtawarira#363#Engineering#3#17/09/2019
Thomas Etzebeth#288#Operations#1#26/10/2020
Trevor Nkosi#229#Science
Lukhanyo Mbonambi#893#Flight
Sinazo Jordaan#588#Science#4#13/05/2019
```

```
Nwabisa Plaatjie#445#Flight
Willie Jantjies#830#Operations#4#12/09/2020
Cheslin Kitshoff#880#Command
Cebisa Kinsey#679#Command
Denita Macingwana#593#Flight#3#14/07/2020
Nolusindiso Cant#482#Science#1#16/08/2018
Siya Brits#758#Security
Zenay Ngxatu#926#Command
Vuyolwethu Adonis#361#Science#5#01/05/2020
Duane Gelant#970#Command
```

testResults.txt

```
892
90
461
95
990
89
985
76
611
70
401
70
899
75
853
100
486
95
904
98
```