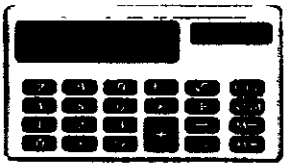
UNIVERSITY EXAMINATIONS



UNIVERSITEITSEKSAMENS

UNISA university of south africa

DSC1630 (476581) May/June 2017

INTRODUCTORY FINANCIAL MATHEMATICS
DEPARTMENT OF DECISION SCIENCES

Duration 2 Hours 100 Marks

EXAMINERS :
FIRST MRS MF IMMELMAN
SECOND DR JE SINGLETON

Programmable pocket calculator is permissible

Closed book examination.

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue

This paper consists of 21 pages, including a list of formulas, a table with the number of each day of the year, nine sheets of paper for rough work and instructions for completing a mark-reading sheet

Please complete the attendance register on the back page, tear it off and hand it to the invigilator

Answer *all* questions on the mark-reading sheet supplied Follow the instructions for completing the mark-reading sheet carefully Also pay attention to the following

- Only ONE option (indicated as [1] [2] [3] [4] [5]) per question is correct Do not mark more than one option per question on the mark-reading sheet
- Marks will *not* be deducted for incorrect answers
- There are 30 questions for a total of 100 marks

You are strongly advised to write your name on the mark-reading sheet Then, if you have entered your student number incorrectly, we will still be able to link you to the mark-reading sheet

Question 1

Mary needs R300,00 now Rachel is prepared to lend her the money on the condition that she pays her R315,00 five months from now The simple interest rate that Rachel earns on this transaction is

[1] 2,08%
[2] 12,00%
[3] 15,00%
[4] 1,00%
[5] none of the above

Question 2

The accumulated amount that Samat will receive after 52 months if he deposits R7 300 into an account earning 9,7% interest per year, compounded every second month, is

[1] R7 825,36
[2] R8 388,53
[3] R10 368,43
[4] R11 076,73
[5] none of the above

Question 3

Payments of R5 000 each are made into an account at the end of every quarter The account earns interest at a rate of 9,5% per year, compounded quarterly The accumulated amount after ten years is

[1] R327 821,53
[2] R128 197,89
[3] R995 403,41
[4] R77 801,45
[5] none of the above

Question 4

Paulina borrows money from the bank at a discount rate of 9,98% She must pay the bank R35 000 in 30 months' time The amount of money that she receives from the bank *now* is

[1] R26 267,50
[2] R27 592,04
[3] R28 011,20
[4] R43 732,50
[5] R45 635,58

ROUGH WORK

Question 5

If Jack Parrow earns a nominal interest rate of 10,5% per annum, compounded at the end of every month, on a savings account, then the effective interest rate is

[1] 0,88%.
[2] 2,31%
[3] 10,5%
[4] 11,02%
[5] none of the above

Question 6

27 months from *now*, Michelle must pay Johnson R35 000 However, she decides to pay him 14 months from *now* If a simple interest rate of 10,2% per year is applicable, then the amount Johnson will receive 14 months from *now* is

[1] R28 466,86
[2] R31 132,50
[3] R31 277,93
[4] R31 517,33
[5] R31 854,41

Question 7

John deposits R900 into a savings account paying 6,5% interest per year, compounded quarterly After three and a half years he withdraws R1 000 from the account and deposits it into a second account paying 11% simple interest per year What is the total amount accrued in the first account two years after he withdrew the R1 000? The correct answer, rounded to the nearest rand, is

[1] R128.
[2] R145
[3] R605.
[4] R1 105
[5] none of the above

Question 8

You are quoted a simple discount rate of 14,29% for eight months The equivalent simple interest rate is

[1] 6,67%
[2] 9,53%
[3] 13,05%
[4] 14,29%
[5] 15,79%

ROUGH WORK

Question 9

Sweetness wants to buy a new car on a promotion coming up on 15 July 2017 On 4 March 2017 she deposits R450 000 in an account earning 7,65% interest per year, compounded monthly Interest is credited on the 1st day of each month If fractional compounding is used for the full term, then the amount that Sweetness will have available on 15 July 2017 will be

[1] R462 703,60
[2] R465 458,88
[3] R451 268,38
[4] R451 045,18
[5] R472 445,80

Question 10

A banker has collected the following sample of data of the number of loans he approved per day during the past week

3 5 12 3 2

The variance of the data set is

[1] 4,1
[2] 13,2
[3] 16,5
[4] 80,0
[5] none of the above.

Question 11

An interest rate of 19,9% per year, compounded quarterly, is equivalent to a weekly compounded rate of

[1] 19,42%
[2] 19,46%
[3] 19,86%
[4] 20,36%
[5] 21,43%

ROUGH WORK

Question 12

Jacob took out a retirement annuity with an annual payment of R6 500 that increases by R1 700 each year If money is worth 10% per annum, then the annuity is worth after 20 years

[1] R200 068,74

[2] R459 257,94

[3] R874 574,99

[4] R1 005 962,49

[5] none of the above

Question 13

You must choose between two investments, A and B The profitability index (PI), net present value (NPV) and internal rate of return (IRR) of the two investments are as follows

Criteria	Investment A	Investment B
NPV	−10 000	22 000
PI	1,945	0,071
IRR	6,00%	18,04%

Which investment/s should you choose, taking all the above criteria into consideration, if the cost of capital is equal to 10% per year?

[1] A

[2] B

[3] Both A and B

[4] Neither A nor B

[5] Too little information to make a decision

Question 14

A student registered for a four-year degree She has a fund of R40 000 available to cover expenses over the next four years The amount of periodic withdrawals at the *beginning* of each month if the interest rate is 7,5% per year, compounded monthly, is

[1] R833,33

[2] R712,70

[3] R961,15

[4] R967,16

[5] none of the above

ROUGH WORK

Questions 15 and 16 are based on the following information:
Hip-hop Handbags sells leather bags The following table represents the selling price of the bag (x) in rand and the number of bags sold at that price (y)

x	500	900	1 500	2 000
y	5	15	19	7

Question 15

The correlation coefficient of a linear regression between x and y is approximately

[1] $r = -0{,}16428$
[2] $r = 0{,}16428$
[3] $r = 4$
[4] $r = 5{,}72276$
[5] none of the above

Question 16

The shop manager suspects a linear relationship between the two variables Fit a curve of the form $y = a + bx$ to the data The equation representing the linear relationship is

[1] $y = 9{,}48566x - 0{,}00164$
[2] $y = 0{,}00164x + 9{,}48566$
[3] $y = 0{,}00164x - 9{,}48566$
[4] $y = 9{,}48566x + 0{,}00164$
[5] none of the above

Question 17

The Army Fund was created for Long John after he had lost a leg in a battle The fund has undertaken to pay him R19 000 every second month *indefinitely* If an interest rate of 9,5% per year, compounded every second month, is applicable, then the opening balance of the fund is

[1] R1 189 224
[2] R1 200 000
[3] R2 000 000
[4] R2 115 882
[5] R2 400 000

ROUGH WORK

Questions 18 and 19 are based on the following information
Suppose Solly can afford a monthly payment of R1 480 and has obtained a three-year loan of R44 240,35 The loan is financed at 12,5% interest per year, compounded monthly

Question 18

The interest due at the end of the first month is

[1] R43 221,19
[2] R5 530,04
[3] R1 019,19
[4] R460,84
[5] none of the above

Question 19

Considering the amortisation schedule, the principal repaid after the first month is

[1] R460,84
[2] R43 221,19
[3] R1 019,16
[4] R1 029,78
[5] none of the above

Question 20

Consider Stock AAA
Coupon rate (half yearly) 10,5% per year
Yield to maturity 7,955% per year
Maturity date 8 November 2047
Settlement date 29 May 2017
The value of n, the number of half years from the next coupon date until maturity, is

[1] 30
[2] 58
[3] 60
[4] 47
[5] none of the above

ROUGH WORK

Question 21

The MIRR of the Copy and Make Shop over a time period of ten years is 32,7% The present value of the cash outflows is R20 514 Therefore the future value of the cash inflows is approximately

[1] R205 140
[2] R347 344
[3] R670 808
[4] R691 321
[5] none of the above.

Questions 22 and 23 are based on the following situation:
David is considering investing in an investment with an initial outlay of R500 000 He is expecting five successive annual cash inflows of R75 000, R190 000, R40 000, R150 000 and R180 000 respectively The cost of capital c is 10% per annum

Question 22

The nett present value (NPV) is approximately

[1] R74 500.
[2] −R135 000
[3] R135 000
[4] −R30 523
[5] none of the above

Question 23

The profitability index (PI) is

[1] 0,27000
[2] 0,34369
[3] 0,65631
[4] 0,93895
[5] none of the above

Question 24

If $S = Pe^{ct}$ then t equals

[1] $\frac{\frac{s}{P}-e}{c}$
[2] $\frac{S-P}{e^t}$
[3] $\frac{S+P}{e^t}$
[4] $\ln \frac{S-P}{c}$
[5] $\frac{\ln(\frac{S}{P})}{c}$

ROUGH WORK

Question 25

John Drake took out a loan on his truck, subject to making the following payments

R10 000 after six months
R20 000 after a year
R40 000 after two years

As a result of drought on his farm, he could not make the first two payments After 18 months he had a record harvest and immediately made a down payment of R50 000 against his loan The interest rate charged on all amounts is 13% per year, compounded annually
The single payment, rounded to the nearest rand, that he should make two years after taking out the loan to settle his debt is

[1] R21 461
[2] R21 300.
[3] R21 562
[4] R21 260
[5] none of the above

Question 26

Mike deposits R1 500 at the end of every month into an account that earns 12,5% interest per year, compounded monthly After two years, he stops making these monthly contributions because the interest rate changes to 15% per year, compounded every two months If he leaves the money in the account and no withdrawals or deposits are made for four years, the balance in the account will be

[1] R40 660,72.
[2] R62 224,96
[3] R65 114,13
[4] R72 517,49
[5] R73 544,10

Question 27

After making a down payment of R5 000 on an off-road bicycle, Chase also had to pay an additional R700 per month for it for three years Interest was charged at 14,5% per year, compounded monthly, on the unpaid balance. The original price of the bicycle is

[1] R6 611,60
[2] R20 336,44.
[3] R25 336,44
[4] R36 337,23
[5] none of the above

ROUGH WORK

Question 28

The equation for the present value of Bond OPE on 24/6/2017 is given by

$$P(24/6/2017) = 7{,}35a_{\overline{29}|0{,}135-2} + 100\left(1 + \frac{0{,}135}{2}\right)^{-29}$$

and the fraction of the half year to be discounted back is 74/181 The all-in price of the bond is

[1] R104,71756%
[2] R107,55174%.
[3] R111,87388%
[4] R114,90174%
[5] none of the above

Question 29

The next coupon date that follows the settlement date of a bond is 28 October 2017. If the settlement date is 11 September 2017 and the **half-yearly coupon rate** is 7,35%, the accrued interest of the bond is

[1] R0,94644%
[2] R1,89288%
[3] R3,68507%
[4] R5,47726%
[5] R7,37014%

Question 30

Dieter owes Paul R3 000, due ten months from now, and R25 000, due 32 months from now Dieter asks Paul if he can discharge his obligations by two equal payments· one now and the other one 28 months from now Paul agrees on condition that a 14,75% interest rate, compounded every two months, is applicable. The amount that Dieter will pay Paul 28 months from now is approximately

[1] R11 455
[2] R11 511
[3] R11 907
[4] R14 000.
[5] R20 000

ROUGH WORK

The number of each day of the year

FOR LEAP YEARS, ADD ONE TO THE NUMBER OF EVERY DAY AFTER FEBRUARY 28

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day
1	1	32	60	91	121	152	182	213	244	274	305	335	1
2	2	33	61	92	122	153	183	214	245	275	306	336	2
3	3	34	62	93	123	154	184	215	246	276	307	337	3
4	4	35	63	94	124	155	185	216	247	277	308	338	4
5	5	36	64	95	125	156	186	217	248	278	309	339	5
6	6	37	65	96	126	157	187	218	249	279	310	340	6
7	7	38	66	97	127	158	188	219	250	280	311	341	7
8	8	39	67	98	128	159	189	220	251	281	312	342	8
9	9	40	68	99	129	160	190	221	252	282	313	343	9
10	10	41	69	100	130	161	191	222	253	283	314	344	10
11	11	42	70	101	131	162	192	223	254	284	315	345	11
12	12	43	71	102	132	163	193	224	255	285	316	346	12
13	13	44	72	103	133	164	194	225	256	286	317	347	13
14	14	45	73	104	134	165	195	226	257	287	318	348	14
15	15	46	74	105	135	166	196	227	258	288	319	349	15
16	16	47	75	106	136	167	197	228	259	289	320	350	16
17	17	48	76	107	137	168	198	229	260	290	321	351	17
18	18	49	77	108	138	169	199	230	261	291	322	352	18
19	19	50	78	109	139	170	200	231	262	292	323	353	19
20	20	51	79	110	140	171	201	232	263	293	324	354	20
21	21	52	80	111	141	172	202	233	264	294	325	355	21
22	22	53	81	112	142	173	203	234	265	295	326	356	22
23	23	54	82	113	143	174	204	235	266	296	327	357	23
24	24	55	83	114	144	175	205	236	267	297	328	358	24
25	25	56	84	115	145	176	206	237	268	298	329	359	25
26	26	57	85	116	146	177	207	238	269	299	330	360	26
27	27	58	86	117	147	178	208	239	270	300	331	361	27
28	28	59	87	118	148	179	209	240	271	301	332	362	28
29	29		88	119	149	180	210	241	272	302	333	363	29
30	30		89	120	150	181	211	242	273	303	334	364	30
31	31		90		151		212	243		304		365	31

FORMULAS

$$I = Prt$$

$$S = P(1 + rt)$$

$$P = S(1 - dt)$$

$$S = P\left(1 + \frac{j_m}{m}\right)^{tm}$$

$$J_{eff} = 100\left(\left(1 + \frac{j_m}{m}\right)^{m} - 1\right)$$

$$S = Pe^{ct}$$

$$j_\infty = 100(e^c - 1)$$

$$c = m\ln\left(1 + \frac{j_m}{m}\right)$$

$$j_m = m\left(e^{\frac{c}{m}} - 1\right)$$

$$j_n = n\left(\left(1 + \frac{j_m}{m}\right)^{\frac{m}{n}} - 1\right)$$

$$S = R\left(\frac{(1+i)^n - 1}{i}\right)$$

$$S = Rs_{\overline{n}|i}$$

$$P = Ra_{\overline{n}|i}$$

$$P = R\left(\frac{(1+i)^n - 1}{i(1+i)^n}\right)$$

$$A = nR + Q\left[\frac{n(n-1)}{2}\right]$$

$$r = \frac{d}{1 - dt}$$

$$S = (1+i)Rs_{\overline{n}|i}$$

$$P = (1+i)Ra_{\overline{n}|i}$$

$$P = da_{\overline{n}|z} + 100(1+z)^{-n}$$

$$\frac{H - R}{365} \times c$$

$$\frac{-R}{365} \times c$$

$$MIRR = \left(\frac{C}{PV_{\text{out}}}\right)^{\frac{1}{n}} - 1$$

$$PI = \frac{NPV + \text{original investment}}{\text{original investment}}$$

$$P = \frac{R}{i}$$

$$S = \left[R + \frac{Q}{i}\right]s_{\overline{n}|i} - \frac{nQ}{i}$$

$$T_r = Ra_{\overline{n}|r} - P$$

$$\bar{x} = \frac{\sum_{i=1}^{n} x_i}{n}$$

$$\bar{x}_w = \frac{\sum_{i=1}^{n} x_i w_i}{\sum_{i=1}^{n} w_i}$$

$$\sum_{i=1}^{n} i = \frac{n(n+1)}{2}$$

$$S = \sqrt{\frac{\sum_{i=1}^{n}(x_i - \bar{x})^2}{n-1}}$$

$$y = a + bx$$

UNIVERSITY OF SOUTH AFRICA UNISA UNIVERSITEIT VAN SUID-AFRIKA

EXAMINATION MARK READING SHEET EKSAMEN-MERKLEESBLAD

PART 1 (GENERAL/ALGEMEEN) DEEL 1

STUDY UNIT e g PSY100 X / STUDIE EENHEID bv PSY100-X — 1

PAPER NUMBER / VRAESTELNOMMER — 2

INITIALS AND SURNAME / VOORLETTERS EN VAN — 3

DATE OF EXAMINATION / DATUM VAN EKSAMEN — 4

EXAMINATION CENTRE (E G PRETORIA) / EKSAMENSENTRUM (BV PRETORIA) — 5

STUDENT NUMBER / STUDENTENOMMER — 6 — 7

UNIQUE PAPER NO / UNIEKE VRAESTEL NR — 8 — 9

For use by examination invigilator

Vir gebruik deur eksamenopsiener

IMPORTANT

1 USE ONLY AN HB PENCIL TO COMPLETE THIS SHEET
2 MARK LIKE THIS
3 CHECK THAT YOUR INITIALS AND SURNAME HAS BEEN FILLED IN CORRECTLY
4 ENTER YOUR STUDENT NUMBER FROM LEFT TO RIGHT
5 CHECK THAT YOUR STUDENT NUMBER HAS BEEN FILLED IN CORRECTLY
6 CHECK THAT THE UNIQUE NUMBER HAS BEEN FILLED IN CORRECTLY
7 CHECK THAT ONLY ONE ANSWER PER QUESTION HAS BEEN MARKED
8 DO NOT FOLD

BELANGRIK

1 GEBRUIK SLEGS N HB POTLOOD OM HIERDIE BLAD TE VOLTOOI
2 MERK AS VOLG
3 KONTROLEER DAT U VOORLETTERS EN VAN REG INGEVUL IS
4 VUL U STUDENTENOMMER VAN LINKS NA REGS IN
6 KONTROLEER DAT U DIE KORREKTE STUDENTENOMMER VERSTREK HET
6 KONTROLEER DAT DIE UNIEKE NOMMER REG INGEVUL IS
7 MAAK SEKER DAT NET EEN ALTERNATIEF PER VRAAG GEMERK IS
8 MOENIE VOU NIE

PART 2 (ANSWERS/ANTWOORDE) DEEL 2

10

1	c1 c2 c3 c4 c5	36	c1 c2 c3 c4 c5	71	c1 c2 c3 c4 c5	106	c1 c2 c3 c4 c5
2	c1 c2 c3 c4 c5	37	c1 c2 c3 c4 c5	72	c1 c2 c3 c4 c5	107	c1 c2 c3 c4 c5
3	c1 c2 c3 c4 c5	38	c1 c2 c3 c4 c5	73	c1 c2 c3 c4 c5	108	c1 c2 c3 c4 c5
4	c1 c2 c3 c4 c5	39	c1 c2 c3 c4 c5	74	c1 c2 c3 c4 c5	109	c1 c2 c3 c4 c5
5	c1 c2 c3 c4 c5	40	c1 c2 c3 c4 c5	75	c1 c2 c3 c4 c5	110	c1 c2 c3 c4 c5
6	c1 c2 c3 c4 c5	41	c1 c2 c3 c4 c5	76	c1 c2 c3 c4 c5	111	c1 c2 c3 c4 c5
7	c1 c2 c3 c4 c5	42	c1 c2 c3 c4 c5	77	c1 c2 c3 c4 c5	112	c1 c2 c3 c4 c5
8	c1 c2 c3 c4 c5	43	c1 c2 c3 c4 c5	78	c1 c2 c3 c4 c5	113	c1 c2 c3 c4 c5
9	c1 c2 c3 c4 c5	44	c1 c2 c3 c4 c5	79	c1 c2 c3 c4 c5	114	c1 c2 c3 c4 c5
10	c1 c2 c3 c4 c5	45	c1 c2 c3 c4 c5	80	c1 c2 c3 c4 c5	115	c1 c2 c3 c4 c5
11	c1 c2 c3 c4 c5	46	c1 c2 c3 c4 c5	81	c1 c2 c3 c4 c5	116	c1 c2 c3 c4 c5
12	c1 c2 c3 c4 c5	47	c1 c2 c3 c4 c5	82	c1 c2 c3 c4 c5	117	c1 c2 c3 c4 c5
13	c1 c2 c3 c4 c5	48	c1 c2 c3 c4 c5	83	c1 c2 c3 c4 c5	118	c1 c2 c3 c4 c5
14	c1 c2 c3 c4 c5	49	c1 c2 c3 c4 c5	84	c1 c2 c3 c4 c5	119	c1 c2 c3 c4 c5
15	c1 c2 c3 c4 c5	50	c1 c2 c3 c4 c5	85	c1 c2 c3 c4 c5	120	c1 c2 c3 c4 c5
16	c1 c2 c3 c4 c5	51	c1 c2 c3 c4 c5	86	c1 c2 c3 c4 c5	121	c1 c2 c3 c4 c5
17	c1 c2 c3 c4 c5	52	c1 c2 c3 c4 c5	87	c1 c2 c3 c4 c5	122	c1 c2 c3 c4 c5
18	c1 c2 c3 c4 c5	53	c1 c2 c3 c4 c5	88	c1 c2 c3 c4 c5	123	c1 c2 c3 c4 c5
19	c1 c2 c3 c4 c5	54	c1 c2 c3 c4 c5	89	c1 c2 c3 c4 c5	124	c1 c2 c3 c4 c5
20	c1 c2 c3 c4 c5	55	c1 c2 c3 c4 c5	90	c1 c2 c3 c4 c5	125	c1 c2 c3 c4 c5
21	c1 c2 c3 c4 c5	56	c1 c2 c3 c4 c5	91	c1 c2 c3 c4 c5	126	c1 c2 c3 c4 c5
22	c1 c2 c3 c4 c5	57	c1 c2 c3 c4 c5	92	c1 c2 c3 c4 c5	127	c1 c2 c3 c4 c5
23	c1 c2 c3 c4 c5	58	c1 c2 c3 c4 c5	93	c1 c2 c3 c4 c5	128	c1 c2 c3 c4 c5
24	c1 c2 c3 c4 c5	59	c1 c2 c3 c4 c5	94	c1 c2 c3 c4 c5	129	c1 c2 c3 c4 c5
25	c1 c2 c3 c4 c5	60	c1 c2 c3 c4 c5	95	c1 c2 c3 c4 c5	130	c1 c2 c3 c4 c5
26	c1 c2 c3 c4 c5	61	c1 c2 c3 c4 c5	96	c1 c2 c3 c4 c5	131	c1 c2 c3 c4 c5
27	c1 c2 c3 c4 c5	62	c1 c2 c3 c4 c5	97	c1 c2 c3 c4 c5	132	c1 c2 c3 c4 c5
28	c1 c2 c3 c4 c5	63	c1 c2 c3 c4 c5	98	c1 c2 c3 c4 c5	133	c1 c2 c3 c4 c5
29	c1 c2 c3 c4 c5	64	c1 c2 c3 c4 c5	99	c1 c2 c3 c4 c5	134	c1 c2 c3 c4 c5
30	c1 c2 c3 c4 c5	65	c1 c2 c3 c4 c5	100	c1 c2 c3 c4 c5	135	c1 c2 c3 c4 c5
31	c1 c2 c3 c4 c5	66	c1 c2 c3 c4 c5	101	c1 c2 c3 c4 c5	136	c1 c2 c3 c4 c5
32	c1 c2 c3 c4 c5	67	c1 c2 c3 c4 c5	102	c1 c2 c3 c4 c5	137	c1 c2 c3 c4 c5
33	c1 c2 c3 c4 c5	68	c1 c2 c3 c4 c5	103	c1 c2 c3 c4 c5	138	c1 c2 c3 c4 c5
34	c1 c2 c3 c4 c5	69	c1 c2 c3 c4 c5	104	c1 c2 c3 c4 c5	139	c1 c2 c3 c4 c5
35	c1 c2 c3 c4 c5	70	c1 c2 c3 c4 c5	105	c1 c2 c3 c4 c5	140	c1 c2 c3 c4 c5

MARK READING SHEET INSTRUCTIONS

Your mark reading sheet is marked by computer and should therefore be filled in thoroughly and correctly

USE ONLY AN HB PENCIL TO COMPLETE YOUR MARK READING SHEET

PLEASE DO NOT FOLD OR DAMAGE YOUR MARK READING SHEET

Consult the illustration of a mark reading sheet on the reverse of this page and follow the instructions step by step when working on your sheet

Instruction numbers ❶ to ❿ refer to spaces on your mark reading sheet which you should fill in as follows

❶ Write your paper code in these eight squares, for instance

P	S	Y	1	0	0	-	X

❷ The paper number pertains only to first-level courses consisting of two papers

WRITE | 0 | 1 | for the first paper and | 0 | 2 | for the second If only one paper, then leave blank

❸ Fill in your initials and surname

❹ Fill in the date of the examination

❺ Fill in the name of the examination centre

❻ WRITE the digits of your student number HORIZONTALLY (from left to right) Begin by filling in the first digit of your student number in the first square on the left, then fill in the other digits, each one in a separate square

❼ In each vertical column mark the digit that corresponds to the digit in your student number as follows [-]

❽ WRITE your unique paper number HORIZONTALLY

NB Your unique paper number appears at the top of your examination paper and consists only of digits (e g 403326)

❾ In each vertical column mark the digit that corresponds to the digit number in your unique paper number as follows [-]

❿ Question numbers 1 to 140 indicate corresponding question numbers in your examination paper The five spaces with digits 1 to 5 next to each question number indicate an alternative answer to each question The spaces of which the number correspond to the answer you have chosen for each question and should be marked as follows [-]

♦ For official use by the invigilator Do not fill in any information here

Tear

attendance register (university copy) UNISA

Fill-in/MCQ

Examination period

Student number

Surname

First Names

Subject

Code of paper — Number of paper

Centre Date

This is to certify that I have read the rules governing the examinations as set out on the inside cover of this examination answer book and in the examination instructions

That the information supplied by me in this answer book is correct and valid

I undertake to adhere to the procedures, rules and regulations of the University of South Africa as published in the official brochures

Signature of candidate

ID Number

Batch No
28092015MCQ

Signature of invigilator

UNISA invigilator's personnel number

NOTE Not a valid document if not completed by the Invigilator

Tear

attendance register (student copy) UNISA

Fill-in/MCQ

Examination period

Student number

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