

GAUTENG DEPARTMENT OF EDUCATION

SENIOR CERTIFICATE EXAMINATION

COMPUTER STUDIES HG
(Second Paper: Theory)

QUESTION 1

- 1.1 D ✓ ✓
- 1.2 B ✓ ✓
- 1.3 D ✓ ✓
- 1.4 D ✓ ✓
- 1.5 A ✓ ✓
- 1.6 A ✓ ✓
- 1.7 B ✓ ✓
- 1.8 B ✓ ✓
- 1.9 B ✓ ✓
- 1.10 C ✓ ✓ (20)

QUESTION 2

- 2.1 Very expensive *Any 1* ✓ (1)
You require a motherboard designed for RDRAM.
- 2.2 DDR SDRAM – It doubles ✓ the data rate of the RAM because it can send twice every clock cycle.
✓
DRAM – the memory can be refreshed ✓ when the CPU is not busy with data transfer.
✓ (4)
- 2.3 Cache memory stores data and instructions that have the most probable chance to be used next by the CPU. ✓ An increase in cache memory will contribute to the storage of more data ✓ and instructions and will allow the CPU not to obtain the data from the slow RAM. ✓ (3)
- 2.4.1 CPU ✓ and RAM ✓ (2)
- 2.4.2 Data bus. ✓ The wider the data bus the more data can be sent. ✓ (2)
- 2.4.3 System clock ✓ (1)
- 2.4.4 Clock multiplication refers to the process that occurs when the pulses ✓ of the system clock are multiplied with an integer or a fraction. ✓ (2)
- 2.4.5 ISA, PCI, AGP *Any 2* ✓ ✓ (2)
- 2.5.1 A wireless network that enables various electronic devices to communicate ✓ without any physical connection. ✓ (2) High frequency, Short distances
- 2.5.2 Devices such as printers, mouse, keyboards, cellphones. *Any 2* ✓ ✓ (2)
- 2.6 Can allow connection of up to 127 devices to the computer
Devices are plug and play
Devices are hot swappable
Many different devices can be connected.
Any 3 ✓ ✓ ✓ (3)

- 2.7.1 Pipeline processing is a method of processing whereby the processor can read new instructions ✓ from the memory before the instruction being executed ✓ is completely executed. ✓ (3)
- 2.7.2 The more the stages in the pipeline, the faster ✓ the processing because more instructions at any time are being worked on.(1)
- 2.7.3 Anything to do with complex mathematics with real numbers – especially 3D-applications, CAD programs ✓ , games ✓ , spreadsheets. (2)
- 2.7.4 ALU is responsible for all the computational ✓ and logical ✓ (comparing and decision making) processing of the computer. (2)
- 2.8 The smaller the transistors, the more can be fitted to a chip.
Smaller transistors switch faster.
Smaller transistors use less power.
The more the transistors, the more powerful a chip is.
The more transistors one can fit to a chip, the cheaper it is to manufacture. *Any 3*
✓ ✓ ✓ (3)

QUESTION 3

-
- 3.1.1 Is the computer fast enough? *Any 2* ✓ ✓ (2)
Ensure the computer's devices are compatible with the operating system.
- 3.1.2 Most stable Windows yet *Any 3* ✓ ✓ ✓ (3)
Excellent compatibility with older programs
Greater security with built in encryption tools
True Plug and Play with a large set of device drivers and truly seamless driver installation
Friendly and easy to configure networking
Improves security for home users
Additional tools and support for multimedia devices such as video cameras, digital cameras etc.
- 3.2.1 Through the Internet ✓ (1)
- 3.2.2 New viruses are released daily. (1)
- 3.2.3 Don't use stiffies before checking for viruses.
Don't open files of e-mail if the source of the e-mail is unknown.
Don't use illegal software.
Don't download files from any website on the Internet. *Any 3* ✓ ✓ ✓ (3).
- 3.3.1 Kernel ✓
- 3.3.2 Drivers ✓
- 3.3.3 CMOS ✓
- 3.3.4 File Allocation table ✓ (FAT)
- 3.3.5 User interface ✓
- 3.3.6 Compiler ✓
- 3.3.7 Multithreading ✓
- 3.3.8 Linux ✓
- 3.3.9 Multitasking ✓
- 3.3.10 Virtual memory ✓ (10)

QUESTION 4

- 4.1 It keeps a good balance between speed and price
Easy to install
Reliable technology *Any 2 ✓ ✓ (2)*
- 4.2 hub / switch ✓ (1)
- 4.3 Regenerates signals
Amplifies signals
Intelligent path selection *Any 2 ✓ ✓ (2)*
- 4.4 Twisted pair ✓ (1)
- 4.5 Fibre-optical or co-axial (coax) *Any 1 ✓ (1)*
- 4.6 Supplies a physical connection point
Controls the conversion of data between the format the computer stores it and the format suitable for transmission.
Contains also the functions controlling access to the network
Any 2 ✓ ✓ (2)
- 4.7 Many workstations have access to the line (multiple access) ✓
Before sending they 'listen' if the line is busy. ✓
If a collision occurs, all computers detect it. ✓ (3)
- 4.8.1 Switch line sends analog signals, while ISDN sends digital signals
ISDN can send more data than a switch line
ISDN can send data faster than a switch line
Any 2 ✓ ✓ (2)
- 4.8.2 More bandwidth from an ISP to the client ✓ than from the subscriber to the ISP. ✓ (2)
- 4.8.3 Provides point-to-point services over digital lines.
Synchronous Public Data Network of Telkom
Continuous data transfer
High quality data transfer
Permanent communication line
Can convey digital speech and video signals *Any 3 ✓ ✓ ✓ (3)*
- 4.8.4 A dedicated continuous connection between any two points. ✓ (1)
- 4.8.5 A technique that determines how connections are made and how data transmission ✓ is handled in a WAN. (2)
- 4.8.6 A type of communication in which a dedicated ✓ channel or circuit is established, connecting the sender and receiver by a single ✓ path for the duration of a transmission.
✓ (3)
- 4.8.7 High volumes of data can be sent.
Fast.
Can access on any location. *Any 1 ✓ (1)*
- 4.9.1 The data compression method, if any, to be used ✓
How the sending device will show that it has finished sending a message ✓
How the receiving device will show that it has received a message ✓
The type of error checking to be used ✓ (4)
- 4.9.2 FDDI ✓ (1)
- 4.9.3 Each machine on the Internet ✓ has a unique address ✓, its Internet number or IP address. (2)

- 4.10.1 Firewalls are systems ✓ designed to prevent unauthorized access to or from a private network ✓ . (2)
- 4.10.2 A router links two networks ✓ that do not have an identical architecture. ✓ (2)
- 4.10.3 A gateway is a device that can interpret and translate the different communication rules ✓ that are used on two different networks ✓ so that communication can occur ✓ .(3)

QUESTION 5

- 5.1.1 A lot of money is spent on the development of software. It causes software to be very expensive because the companies provide for software privacy. *Explanation.* ✓ ✓ (2)
- 5.1.2 Media-campaigns *Any 2* ✓ ✓ (2)
 Laws against software piracy
 Built-in security, e.g. software has to be registered and requires a code to enable it.
- 5.1.3 Suppose a person gives his/her particulars to a company in order to buy a product via the Internet. The person's particulars are then sent to another company. He/She receives junk mail. *Example.* ✓ ✓ *Privacy.* ✓ . (3)
- 5.2.1 Can shop any time, day or night. *Any 3* ✓ ✓ ✓ (3)
 Shopped items are delivered at home.
 One does not have to go to the shop oneself.
 Prices can be compared
 One can buy from any shop that delivers groceries.
- 5.2.2 It is a scheme designed to provide for safe ✓ transactions between two computers via the Internet. ✓ (2)
- 5.3 Games *Any 3* ✓ ✓ ✓ (3)
 Data base for storage of addresses, telephone numbers, etc.
 Internet access
 E-mail
 Sending a fax
 Word processing
 Spreadsheet

QUESTION 6

6.1.1 No ✓ ✓ (2)

6.1.2 4 ✓ ✓ (2)

6.2 Readable - statements indented
 - meaningful names for variables
 - comments
 - lines left open

Uses procedures, functions, units.

Any 3 ✓ ✓ ✓ (3)

6.3 This translator directory tests whether the file has/has not been created. ✓ ✓ . If the file has not been created, no error message will be displayed, but the IOResult will be larger than 0 and the file will then be created. ✓ (3)

QUESTION 7

7.1.1 The begin and end were let out of the while-statement ✓ ✓ (2)

OR

While not eof(datafile) do

Read(datafile,data);

With data do

Writeln(name,' ',surname,' ',telephone)

Delphi: lblMessage.Caption := name + ' ' + surname + ' ' + telephone;

OR

(Pascal) There is a clrscr inside the while statement and only the last record is displayed.

7.1.2 When data is read from the file, the file marker is moved to the next record in the file.

✓ The new data is then written over the fourth record in the file. ✓ Therefore the marker has to be moved back one place to prevent the error from occurring. ✓ (3)

7.2

reset (Textf) ; ✓

count := 0; ✓

while not eof (Textf) do ✓

begin

readln(textf, characterstring); ✓

inc(count); ✓

if count = x then ✓

begin

textcolor(red); ✓ /font.color := clred;

gotoxy (36,10); ✓

writeln(characterstring);

/showmessage (characterstring) ✓

end;

end;

close (textf) ; /closeFile (textf) ✓

end.

(10)

QUESTION 8

8.1 15 ✓ (1)

8.2 C ✓ (1)

8.3.1

Arr[1]	Arr[2]	Arr[3]
6 ✓	12 ✓	12 ✓

(3)

8.3.2

```

if arr[k] > arr[j] then
  begin
    swop := arr[k];
    arr[k] := arr[j]; ✓ (1) / Explanation
    arr[j] := swop;
  end;

```

8.4.1 Correct ✓ (1)

8.4.2 Correct ✓ (1)

8.4.3 Incorrect, person is a recordtype, use oneperson. ✓ (1)

8.4.4 Index must be indicated for example manyper[k]. ✓ (1)

8.5 for r := 1 to 5 do ✓

begin

for k := 1 to 5 do ✓

begin

NUMBER := RANDOM (223)+33; ✓

TWO[R,K] := chr(NUMBER); ✓ ✓ (5)

end;

QUESTION 9

9.1 function CONVERT(characterstring:str8/string ✓):real; ✓

9.2 first := copy(characterstring,1,4); ✓

9.3 val(first,numberfirst,errorcode ✓); ✓

9.4 exponent := copy(characterstring,7,2); ✓

9.5 val(exponent,numberexponent,errorcode); ✓

9.6 value := 1; ✓

for j := 1 to numberexponent do ✓

value := value *10; ✓

9.7 sign := copy(characterstring,6,1); ✓

9.8 if sign = '+' ✓ then numbervalue := numberfirst* value ✓ else

numbervalue := numberfirst/value; ✓

9.9 CONVERT := numbervalue; ✓

(15)

QUESTION 10

10.1

```
Procedure cryptogram(line:string, var: newline:string); ✓
```

```
var
```

```
  k :integer; ✓
```

```
  newline := ' '; ✓
```

```
  for k := 1 to length(line) do ✓
```

```
  begin
```

```
    if upcase(line[k]) in ['A'..'Z'] then ✓ ✓
```

```
    begin
```

```
      inc(line[k]); ✓
```

```
      newline := newline+line[k]; ✓
```

```
    end
```

```
      else ✓
```

```
        begin
```

```
          newline := newline + ' '; ✓
```

```
        end;
```

```
  end;
```

```
end;(10)
```

OR

```
Procedure CryptoGram(kode:string; var nuweKode:string);
```

```
var
```

```
  k :integer;
```

```
begin
```

```
  For K := 1 to length(Kode) do
```

```
    nuweKode := nuweKode + succ(kode[K]);
```

```
end;
```

10.2

```
Unit convert; ✓
```

```
Interface ✓
```

Declaration of constants, types, variables as well as all procedure- and function definitions with formal parameters ✓

```
Implementation ✓
```

```
{Complete Procedure CRYPTOGRAM} ✓ (5)
```

```
End.
```

GAUTENGSE DEPARTEMENT VAN ONDERWYS

SENIORSERTIFIKAAT-EKSAMEN

REKENAARSTUDIE HG
(Tweede Vraestel: Teorie)

VRAAG 1

- 1.1 D ✓ ✓
- 1.2 B ✓ ✓
- 1.3 D ✓ ✓
- 1.4 D ✓ ✓
- 1.5 A ✓ ✓
- 1.6 A ✓ ✓
- 1.7 B ✓ ✓
- 1.8 B ✓ ✓
- 1.9 B ✓ ✓
- 1.10 C ✓ ✓ (20)

VRAAG 2

- 2.1 Baie duur *Enige 1* ✓ (1)
Jy benodig 'n moederbord wat ontwerp is vir RDRAM
- 2.2 DDR SDRAM - Dit verdubbel ✓ die datatempo van die RAM omdat dit twee keer elke klokpuls kan stuur. ✓
DRAM – die geheue kan verfris ✓ word wanneer die SVE nie besig is met data-oordrag nie. ✓ (4)
- 2.3 Kasgeheue stoor data en instruksies wat die waarskynlikste kans het om volgende deur die SVE gebruik te word. ✓ 'n Verhoging in die aantal kasgeheue sal daartoe bydra dat meer data ✓ en instruksies gestoor kan word en dat die SVE nie data in die stadige RAM hoef te gaan haal nie. ✓ (3)
- 2.4.1 SVE ✓ en RAM ✓ (2)
- 2.4.2 Databus. ✓ Hoe wyer die databus hoe meer data kan gestuur word. ✓ (2)
- 2.4.3 Stelselklok ✓ (1)
- 2.4.4 Klokvermenigvuldiging verwys na die proses wat plaasvind wanneer die pulse ✓ van die stelselklok met 'n heelgetal of breuk vermenigvuldig word. ✓ (2)
- 2.4.5 ISA, PCI, AGP *Enige 2* ✓ ✓ (2)
- 2.5.1 'n Draadlose netwerkstelsel wat maak dat verskeie elektroniese toestelle met mekaar kan kommunikeer ✓ sonder enige fisiese verbinding. ✓ (2) Hoë frekwensie, kort afstande
- 2.5.2 Toestelle bv. drukkers, muis, sleutelborde, selfone. *Enige 2* ✓ ✓ (2)
- 2.6 Kan koppeling van tot 127 toestelle aan die rekenaar toelaat
Toestelle is "plug and play"
Toestelle is "hot swappable"
Baie verskillende toestelle kan gekoppel word. *Enige 3* ✓ ✓ ✓ (3)

- 2.7.1 Pyplynverwerking is 'n metode van verwerking waar die verwerker instaat is om nuwe instruksies ✓ vanaf die geheue te lees voordat die instruksie wat dit besig is om te verwerk ✓ , heeltemal klaar verwerk is ✓ .(3)
- 2.7.2 Hoe meer stappe in die pyplyn, hoe vinniger ✓ is die verwerking want daar word aan meer instruksies op 'n keer gewerk.(1)
- 2.7.3 Enigiets wat te doen het met komplekse wiskunde met reële getalle – veral 3D-toepassings, CAD-programme ✓ , speletjies ✓ en sigblaaie.(2)
- 2.7.4 RLE is verantwoordelik vir al die rekenkundige ✓ en logiese ✓ (vergelyking en besluitneming) verwerking van die rekenaar.(2)
- 2.8 Hoe kleiner die transistors, hoe meer kan op 'n skyfie inpas
 Kleiner transistors skakel vinniger.
 Kleiner transistors gebruik minder krag.
 Hoe meer transistors hoe kragtiger is die skyfie.
 Hoe meer transistors op 'n skyfie inpas, hoe goedkoper is dit om te vervaardig. *Enige 3*
 ✓ ✓ ✓ (3)

VRAAG 3

- 3.1.1 Is rekenaar vinnig genoeg? *Enige 2* ✓ ✓ (2)
 Maak seker dat jou rekenaar se apparatuur versoenbaar is met die bedryfstelsel.
- 3.1.2 Dit is die mees stabiele Windows tot nog toe. *Enige 3* ✓ ✓ ✓ (3)
 Aanpasbaarheid met ouer programme uitstekend
 Dit bied beter sekuriteit met ingeboude enkripsiefasiliteite
 Plug and play met 'n groot versameling drywerprogramme
 Gebruikersvriendelike netwerkkonfigurasië
 Verhoogde sekuriteit vir tuisgebruikers
 Addisionele gereedskap en ondersteuning vir multimedia-toestelle soos videokameras, digitale kameras ens.
- 3.2.1 Deur die Internet ✓ (1)
- 3.2.2 Daar word daagliks nuwe virusse vrygestel ✓ (1)
- 3.2.3 Moenie stiffies gebruik voordat dit nie nagegaan is vir virusse nie
 Moenie lêers van e-pos oopmaak as hulle nie die bron van die e-pos ken nie.
 Moenie onwettige sagteware gebruik nie.
 Moenie lêers aflaai van enige Internetruimte nie.
Enige 3 ✓ ✓ ✓ (3).
- 3.3.1 Kern ✓
- 3.3.2 Drywerprogramme ✓
- 3.3.3 CMOS ✓
- 3.3.4 Lêertoekennigstabel ✓ (FAT/LTT)
- 3.3.5 Gebruikerskoppelvlak ✓
- 3.3.6 Kompilerder ✓
- 3.3.7 Multithreading ✓
- 3.3.8 Linux ✓
- 3.3.9 Multitaakverwerking ✓
- 3.3.10 Virtuele geheue ✓ (10)

VRAAG 4

- 4.1 Dit handhaaf 'n goeie balans tussen spoed, prys
Maklike installasie
Betroubare tegnologie *Enige 2* ✓ ✓ (2)
- 4.2 hub / switch ✓ (1)
- 4.3 Hergenerereer seine
Versterk seine
Selekteer die pad waarlangs die sein gestuur word
Enige 2 ✓ ✓ (2)
- 4.4 Gedraaide paar ✓
- 4.5 Veselopties of koaksiaal *Enige 1* ✓ (1)
- 4.6 Voorsien 'n fisiese konneksiepunt
Beheer die omskakeling van data tussen die formaat waarin die rekenaar dit stoor en die formaat wat geskik is vir transmissie
Bevat ook funksies wat die toegang tot die network beheer *Enige 2* ✓ ✓ (2)
- 4.7 Baie werkstasies het toegang tot die lyn (multiple access) ✓
Voordat hulle versend "luister" hulle of die lyn besig is ✓
Sou 'n botsing voorkom, spoor alle rekenaars dit op ✓ (3)
- 4.8.1 Skakellyn stuur analoogseine, terwyl ISDN digitale seine stuur
ISDN kan baie meer data stuur as skakellyn
ISDN kan data vinniger stuur as skakellyn. *Enige 2* ✓ ✓ (2)
- 4.8.2 Groter bandwydte word vanaf 'n ISP na die kliënt ✓ toegelaat as vanaf die intekenaar na die ISP. ✓ (2)
- 4.8.3 Verskaf punt-punt dienste oor digitale lyne
Sinchroniese Openbare Datanetwerk van Telkom
Deurlopende dataoordrag
Hoë-kwaliteit data-oordrag
Permanente kommunikasielyn
Kan digitale spraak en videoseine oordra *Enige 3* ✓ ✓ ✓ (3)
- 4.8.4 'n Toegewyde altyd-beskikbare ✓ verbinding tussen enige twee punte.(1)
- 4.8.5 'n Tegniek wat bepaal hoe konneksies gemaak word en hoe datavloei ✓ in 'n WAN ✓ hanteer word.(2)
- 4.8.6 Dit is 'n tipe kommunikasie waar 'n enkele ✓ toegewyde lyn ✓ bewerkstellig word om 'n sender en ontvanger vir die duur van die transmissie te verbind. ✓ (3)
- 4.8.7 Hoë volume data kan versend word
Vinnig
Bykans enige plek toegang kry. *Enige 1* ✓ (1)
- 4.9.1 Die tipe datakompresie ✓
Hoe die sender sal aandui dat versending voltooi is ✓
Hoe die ontvanger sal aandui dat die boodskap ontvang is ✓
Die tipe foutkontrole wat gerbuik word ✓ (4)
- 4.9.2 FDDI ✓ (1)
- 4.9.3 Elke masjien op die Internet ✓ het 'n unieke adres ✓ sy Internetnommer of IP-adres (2)

- 4.10.1 'n Firewall is 'n stelsel wat ontwerp is om ongemagtigde toegang ✓ tot of vanaf 'n private netwerk ✓ te voorkom.
- 4.10.2 'n Roeteerder koppel twee netwerke ✓ wat nie van dieselfde argitektuur ✓ gebruik maak nie.
- 4.10.3 'n Deurgangspoort is 'n toestel wat die verskillende kommunikasie-rëels ✓ van verskillende netwerke ✓ kan interpreteer en na mekaar kan omskakel sodat kommunikasie kan plaasvind. ✓ (7)

VRAAG 5

- 5.1.1 Baie geld gaan in die ontwikkeling van sagteware. Dit maak dat programmatuur baie duur word omdat die maatskappy voorsiening maak vir programmatuurroof.
Verduideliking ✓ ✓ (2)
- 5.1.2 Media-veldtogte *Enige 2* ✓ ✓ (2)
Wetgewing teen programmatuurroof
Ingeboude sekuriteit bv. moet sagteware registreer en kode kry voor dit begin werk.
- 5.1.3 Veronderstel 'n persoon gee sy besonderhede aan 'n maatskappy om 'n produk deur die Internet te koop. Die persoon se inligting word dan aan 'n ander maatskappy gestuur. Hy ontvang dan allerhande gemorspos. (spam)
voorbeeld ✓ ✓
Privaatheid ✓ (3)
- 5.2.1 Kan enige tyd van die dag of nag inkopies doen *Enige 3* ✓ ✓ ✓ (3)
Inkopies word by die huis afgelewer
Jy hoef nie self na die winkel te gaan nie
Pryse kan vergelyk word
Jy kan by enige plek koop wat die kruideniersware aflewer
- 5.2.2 Dit is 'n skema wat ontwerp is voorsiening te maak vir veilige ✓ transaksies tussen twee rekenaars oor die Internet. ✓ (2)
- 5.3 Speletjies *Enige 3* ✓ ✓ ✓ (3)
Databasis vir die stoor van adresse en telefoonnommers ens.
Internettoegang
E-pos
Stuur van fakse
Woordverwerking
Sigblad

VRAAG 6

6.1.1 Nee ✓ ✓ (2)

6.1.2 4 ✓ ✓ (2)

- 6.2 Leesbaar - stellings is ingekeep
 - sinvolle name vir veranderlikes
 - kommentaarstellings
 - reëls ooplaat

Maak gebruik van prosedures, funksies, units

Enige 3 ✓ ✓ ✓ (3)

- 6.3 Hierdie vertalerdirektief toets of die lêer reeds geskep is of nie. ✓ ✓ Indien die lêer nie geskep is nie, sal daar geen foutboodskap wees nie, maar die IOResult sal groter as 0 wees en die lêer sal dan geskep word ✓ (3)

VRAAG 7

- 7.1.1 Die begin en end is by die while-stelling vergeet ✓ ✓ (2)

OF

While not eof(data) do

Read(data);

With data do

Writeln(naam, ' ', van, ' ', telefoon)

Delphi: lblAfvoer.Caption := naam + ' ' + van + ' ' + telefoon;

OF

(Pascal) Daar is 'n clrscr binne die while-stelling geplaas en slegs die laaste rekord word vertoon

- 7.1.2 Wanneer data uit die lêer gelees word, skuif die lêermerker na die volgende rekord in die lêer. ✓ Die nuwe data word dan oor die vierde rekord in die lêer geskryf. ✓ Die merker moet dus een plek terug geskryf word om die fout te voorkom. ✓ (3)

7.2

reset(Teksler); ✓

tel := 0; ✓

while not eof(Teksler) do ✓

begin

readln(teksler, karakterstring); ✓

inc(tel); ✓

if tel = x then ✓

begin

textcolor(red); ✓ / Delphi: font.color := clred;

gotoxy(36,10); ✓

writeln(karakterstring); / ✓ showMessage(karakterstring)

end;

end;

close(Teksler); ✓ / closeFile(Teksler);

end.

(10)

VRAAG 8

8.1 15 ✓ (1)

8.2 C ✓ (1)

8.3.1

Skik[1]	Skik[2]	Skik[3]
6 ✓	12 ✓	12 ✓

(3)

8.3.2

```

if skik[k] > skik[j] then
  begin
    ruil := skik[k];
    skik[k] := skik[j]; ✓ (1) Verduideliking
    skik[j] := ruil;
  end;

```

8.4.1 Korrek ✓ (1)

8.4.2 Korrek ✓ (1)

8.4.3 Foutief, persoon is 'n rekordtipe gebruik eenpersoon. ✓ (1)

8.4.4 Indeks moet aangedui word bv. mens[k]. ✓ (1)

```

8.5 for r := 1 to 5 do ✓
  begin
    for k := 1 to 5 do ✓
      begin
        GETAL := RANDOM(223)+33; ✓
        TWEE[R,K] := chr(GETAL); ✓ ✓ (5)
      end;
    end;
  end;

```

VRAAG 9

```

9.1 function OMSKAKEL(karakterstring:str8 ✓ /string):real; ✓
9.2 eerste := copy(karakterstring,1,4); ✓
9.3 val(eerste,getaleerste,foutkode ✓); ✓
9.4 eksponent := copy(karakterstring,7,2); ✓
9.5 val(eksponent,getaleksponent,foutkode); ✓
9.6 waarde := 1; ✓
  for j := 1 to getaleksponent do ✓
    waarde := waarde *10; ✓
9.7 teken := copy(karakterstring,6,1); ✓
9.8 if teken = '+' ✓ then getalwaarde := getaleerste* waarde ✓ else
  getalwaarde := getaleerste/waarde; ✓
9.9 OMSKAKEL := getalwaarde; ✓

```

(15)

VRAAG 10

10.1

```
Procedure kriptogram(sin:string, var: nuwesin:string); ✓
```

```
var
```

```
  k :integer; ✓
```

```
  nuwesin := ''; ✓
```

```
  for k := 1 to length(sin) do ✓
```

```
    begin
```

```
      if upcase(sin[k]) in ['A'..'Z'] then ✓ ✓
```

```
        begin
```

```
          inc(sin[k]); ✓
```

```
          nuwesin := nuwesin+sin[k]; ✓
```

```
        end
```

```
      else ✓
```

```
        begin
```

```
          nuwesin := nuwesin + ' '; ✓
```

```
        end;
```

```
    end;
```

```
end;(10)
```

OF

```
Procedure KryptoGram(kode:string; var nuweKode:string);
```

```
var
```

```
  k :integer;
```

```
begin
```

```
  For K := 1 to length(Kode) do
```

```
    nuweKode := nuweKode + succ(kode[K]);
```

```
end;
```

10.2

```
Unit omskakel; ✓
```

```
Interface ✓
```

verklarings van konstantes, tipes en veranderlikes asook alle prosedure- en funksiedefinisies met hulle formele parameters ✓

```
Implementation ✓
```

```
{ Volledige Prosedure KRIPTOGRAM} ✓ (5)
```

```
End.
```

Eksamennommer:

Nasiener / Marker:

**COMPUTER STUDIES SG PRACTICAL
 MARKSHEET-W 2004/5**

QUESTION 1 (Woordverwerkingslêer KOMPETXX / WP file COMPETXX)

1.1	Heading: Bold, caps, centre, underline, bigger font✓✓✓✓	Compete one word✓	5	
	Swop year the✓	NP The expiry date..✓ Open line ✓	3	
1.2	Header : examination number✓		4	
1.3	Footer: current date✓✓, right align✓			
1.4	Competition rules: Bold + underline✓✓	Numbers at each row✓	3	
	Indent 2cm R + L✓✓	Justify✓ Line spacing 1.5✓	4	
1.5	Add table: Wordart✓✓	Table✓✓	Data correct✓	5
1.6	Page border✓		2	
TOTAL			26	

QUESTION 2 (Woordverwerkingsdokument: / WP file PROGXX)

General impression✓	1	
Insert picture ✓ Suitable✓	2	
Front page Full A4✓ All relevant information: ✓	4	
Inside page Full A4✓ All relevant information: ✓ -1 per error		
Font size✓, Font type✓, Wordart✓✓ Autosshapes✓✓ Alignment✓(spacing), Colour ✓	8	
TOTAL	15	

QUESTION 5.13 (Woordverwerkingsdokument: BRAMXX/WP file BRAMXX)

Heading: High School BRAMTON✓	1	
SURNAME, NAME, GRADE✓ correct data ✓✓	4	
Header: Examination number✓		
TOTAAL	5	

Eksamennommer:

Nasiener / Marker:

QUESTION 3: (Sigbladlêer PUNTEXX) (Spreadsheet file MARKSXX)

3.1 3.2	Columns legible✓	headings bold✓,	wrap text✓	frame✓	4	
3.3	Extra row✓ Heading ✓ bigger font ✓ fontsize✓ picture✓✓ height✓				7	
3.4	Date H1 =Today()✓✓				2	
3.5	Delete Column POSTURE ✓				1	
3.6	Change to Sune Theron				1	
3.7	Column C CATEGORY✓ =IF✓ (B3<16✓,"J" ✓,"S" ✓)				5	
3.8	Column H: =SUM(D3:G3) ✓ fill down✓				2	
3.9	Sort S then J✓ all the columns✓				2	
	Average:= Average(D3:D13) ✓ columns D-H✓ 1 des✓				3	
	Largest: =MAX(H3:H13) ✓✓				2	
	2nd largest:=LARGE(H3:H13,2) ✓✓				2	
	Total: COUNT(H3:H13) ✓✓				2	
	Number of seniors: =COUNTIF(C3:C13,"S")✓✓				2	
3.11	Page break between S and J✓✓ Column headings on both pages✓✓(page setup)				4	
3.12	Filter seniors (5) ✓✓✓ Sheet 2 : FILTER✓ copy 5 names✓✓				3	
3.13	Header : examination number✓				1	
TOTAL:					46	

QUESTION 4 (Spreadsheet file EXPENSXX / Sigbladlêer UITGAWXX)

4.1	LINE CHART				
	line ✓	2003,2004✓		2	
	Heading: EXPENDITURE 2003-2004..✓	X as: EXPENSE✓ Y as: RAND✓		3	
	Scale: 1000✓	Series✓		2	
4.2	PIE CHART				
	Pie Chart✓✓			2	
	Heading: EXPENDITURE MISS....✓	Show %✓✓		3	
TOTAL:				12	

Eksamennommer:

Nasiener / Marker:

QUESTION 5 (Database file ENTRY / Databasislêer INSKRYF)
 Table GIRLS / Tabel DOGTERS

Table GIRLS			
5.1	Change table name GIRLSXX✓	1	
5.2	JONES age 18✓	2	
5.3	CATEGORY between AGE.. + TEL... ✓	Copy from table GROUPS✓	2
5.4	Add: SMITH, ✓ JANSEN ✓	2	
5.5	Primary key NUM✓	auto number ✓	2
5.6	Delete FAURE ✓	1	
5.7	ENTRY FEE – Currency ✓	1	
5.8	Change TEL NUM to CONTACT NUMBER ✓	1	
5.9	Validation test at GRADE 8..12 ✓✓	Text message ✓✓	4
		16	
5.10 Report PARTISXX			
	Fields : SURNAME, NAME, SCHOOL, AGE ✓	1	
	Sort✓ according to age	1	
	Heading PARTICIPANTS, ✓	center✓	2
	Field headings different colour ✓	1	
	Function Average: = round ✓ (avg ✓ ([age])) ✓	Caption	4
	Footer: examination number ✓	1	
	Date, right ✓,	only date (not time) ✓	2
		12	
5.11 Query CONTACTXX			
	SURNAME, NAME, SCHOOL, CONTACT NUMBER ✓✓	-1 error	2
	GRADE : 11✓ or ✓ 12 ✓	and ✓	CONTACT NUMBER: 663* ✓
		7	
Report CONNUMXX			
	SURNAME, NAME, SCHOOL, CONTACT NUMBER ✓	1	
	Heading: CONTACT NUMBERS ✓	1	
	CONTACT NUMBER right align ✓	1	
	Function : = COUNT ([SURNAME]) ✓ or any other field	Caption ✓	2
	Footer: examination number ✓	1	
		6	
5.12 Query OWINGXX			
	AMOUNT OWING : ✓ 200 ✓ – ✓ [ENTRY FEE] ✓	4	
	Show columns SURNAME, NAME, AMOUNT OWING ✓	1	
		5	
TOTAL:		46	

Eksamennommer:

Nasiener / Marker:

**REKENAARSTUDIE SG PRAKTIES
 NASIENBLAD-W 2004/5**

VRAAG 1 (Woordverwerkingslêer KOMPETXX / WP file COMPETXX)

1.1	Opskrif Bold, hoofletters, sentreer, onderstreep, groter skrif✓✓✓✓	Meeding een woord✓	5	
	Ruil is vanjaar om✓	NP Die sluitingsdatum..✓ Oop reël ✓	3	
1.2 1.3	Header : eksamennommer✓ Footer: huidige datum✓✓, regsinlyn✓		4	
1.4	<i>Kompetisiereëls:</i> Bold + onderstreep✓✓	Nommers by elke reël✓	3	
	Inkeping 2cm R + L✓✓	Volinlyn✓ Lynspasiëring 1.5✓	4	
1.5	Voeg tabel in: Wordart✓✓	Tabel✓✓	Regte gegewens✓	5
1.6	Page border✓			2
TOTAAL			26	

VRAAG 2/QUESTION 2 (Woordverwerkingsdokument: PROGXX / WP file PROGXX)

Algemene indruk✓	1	
Prentjie intrek/Insert picture ✓ Pas by tema✓	2	
Buiteblad vol A4✓ Alle gevraagde inligting: ✓	4	
Binneblad vol A4✓ Alle gevraagde inligting: ✓ -1 per fout		
Skrifgroottes✓, skriftypes✓, Wordart✓✓ Autosshapes✓✓ Inlynstelling✓ (spasieëring), Kleur ✓	8	
TOTAAL	15	

VRAAG 5.13 (Woordverwerkingsdokument: BRAMXX / WP file BRAMXX)

Opskrif: Hoërskool BRAMTON✓	1	
VAN, NAAM, GRAAD✓ regte data ✓✓ Header: Eksamennommer✓	4	
TOTAAL	5	

Eksamennommer:

Nasiener / Marker:

VRAAG 3: (Sigbladlêer PUNTEXX) (Spreadsheet file MARKSXX)

3.1 3.2	Kolomme leesbaar✓	opskrifte bold✓,	wrap text✓	raam✓	4			
3.3	Ekstra reël✓	Opskrif ✓	groter skrif ✓	skrif tipe✓	prentjie✓✓	hoogte✓	7	
3.4	Datum H1 =Today()✓✓						2	
3.5	Verwyder Kolom HOUDING ✓						1	
3.6	Verander na Sune Theron						1	
3.7	Kolom C KATEGORIE✓	=IF✓ (B3<16✓,"J" ✓,"S" ✓)					5	
3.8	Kolom H: =SUM(D3:G3) ✓	fill down✓					2	
3.9	Sorteer S dan J✓	al die kolomme✓					2	
	Gem: =Average(D3:D13) ✓	kolomme D-H✓	1 des✓				3	
	Hoogste: =MAX(H3:H13) ✓✓						2	
	2de hoogste:=LARGE(H3:H13,2) ✓✓						2	
	Totaal: COUNT(H3:H13) ✓✓						2	
	Aantal seniors: =COUNTIF(C3:C13,"S")✓✓						2	
3.11	Page break tussen S en J✓✓	Kolomopskrifte op albei bladsye✓✓	(page setup)				4	
3.12	Filter seniors (5) ✓✓✓	Sheet 2 : FILTER✓	kopieer 5 name✓✓				3	
3.13	Header : eksamennommer✓						1	
TOTAAL:							46	

VRAAG 4 (Spreadsheet file EXPENCXX / Sigbladlêer UITGAWXX)

4.1	LYNGRAFIEK					
	lyn ✓	2003,2004✓			2	
	Opskrif: UITGAWES 2003-2004..✓	X as: UITGAWES✓	Y as: RAND✓		3	
	Skaal: 1000✓	Series✓			2	
4.2	SIRKELGRAFIEK					
	Pie Chart✓✓				2	
	Opskrif: UITGAWES MEJ....✓	Wys %✓✓			3	
TOTAAL:					12	

Eksamennommer:
.....

Nasiener / Marker:
.....

VRAAG 5 (Database file ENTRY / Databasislêer INSKRYF)
Table GIRLS / Tabel DOGTERS

Tabel DOGTERS			
5.1	Verander tabelnaam DOGTERXX✓	1	
5.2	JONES ouderdom 18✓	2	
5.3	KATEGORIE tussen OUD.. + TEL... ✓	Kopieer vanaf tabel GROEPE✓	2
5.4	Voeg by: SMITH, ✓JANSEN ✓	2	
5.5	Primêre sleutel NOM✓	outomaties nommer ✓	2
5.6	Delete FAURE ✓	1	
5.7	INSKRYWINGSGELD – Currency ✓	1	
5.8	Verander TEL NOM na KONTAKNOMMER ✓	1	
5.9	Geldigheidstoets by GRAAD 8..12 ✓✓	Teksboodskap ✓✓	4
		16	
5.10 Report DEELNXX			
	Velde VAN, NAAM,SKOOL, OUDERDOM ✓	1	
	Sorteer✓ volgens ouderdom	1	
	Opskrif DEELNEMERS, ✓	sentreer✓	2
	Opskrifte velde ander kleur ✓	1	
	Funksie gem: = round ✓ (avg ✓ ([ouderdom])) ✓	Byskrif ✓	4
	Footer: eksamennommer ✓	1	
	Datum, regs ✓,	net datum (nie tyd) ✓	2
		12	
5.11 Query KONTAKXX			
	VAN, NAAM, SKOOL,KONTAKNOMMER ✓✓ -1 fout	2	
	GRAAD : 11✓ or ✓ 12 ✓	en ✓ KONTAKNOMMER: 663* ✓	5
		7	
Report KONNOMXX			
	VAN, NAAM, SKOOL, KONTAKNOMMER ✓	1	
	Opskrif: KONTAKNOMMERS ✓	1	
	KONTAKNOMMER regslyn ✓	1	
	Funksie : = COUNT ([VAN]) ✓ of ander veld	Byskrif ✓	2
	Footer: eksamennommer ✓	1	
		6	
5.12 Query SKULDXX			
	BEDRAG VERSKULDIG : ✓ 200 ✓ – ✓ [INSKRYWINGSGELD] ✓	4	
	Vertoon kolomme VAN, NAAM, BEDRAG VERSKULDIG ✓	1	
		5	
TOTAAL:		46	