

PRINCIPAL EXAMINER'S REPORT



BOTSWANA
EXAMINATIONS
COUNCIL

BGCSE COMPUTER STUDIES 2024

PAPER 1: PRACTICAL TEST

General comments

At least more candidates performed well in section A. They answered all questions well.

Comments on Individual Questions

Section A

- 1 (a) Almost all candidates did well in this part question, they managed to insert candidate number/name in the header. A few of the candidates inserted the candidate number/name in the footer instead of header and some did not attempt the question.
- (b) This question was well done by almost all candidates. The candidates were able to change the font size to 14. Those who got it wrong did not change the font size at all while others mixed the fonts or changed the part of the document instead of the whole document.
- (c) Most of the candidates did well in this part question as they were able to change the fourth paragraph to four equal sized columns, whilst some candidates did not attempt the question at all.
- (d) The part question was well done by most of the candidates as they managed to move the paragraph starting with the text “Botha explain that...” to the end of the document. Those that failed did not copy and paste instead of cut and paste, whilst others deleted the paragraph. Some did not attempt the part question.
- (e) The part question was well done by most of the candidates, candidates managed to replace all the occurrences of “abilities” by “powers”. Candidates that got it wrong, replaced at most two occurrences instead of three occurrences or did not attempt to the question. Some candidates deleted the word “abilities” instead of replacing.
- (f) The question was well done, most of the candidates were able to insert a text watermark. The weaker candidates did not change the default words in the watermark to “indigenous plants” they did it as like “DRAFT” or “CONFIDENTIAL” or “DO NOT COPY”. Some candidates did not attempt the part question.
- (g) This question was poorly done, few candidates managed to set the top margin to 3.5 cm (1.378 inches) ± 0.5 or bottom margin to 1.5 cm (0.591 inches) ± 0.5 . Most of the candidates used different measurements or did not change the margins at all.
- (h) The question was fairly done. Most of the candidates were able to insert the text border around the title. The weaker candidates did not get it right as they inserted the page border or inserted all borders or did not attempt to the question at all and some candidates just made 1 or 2 lines on the title (parallel lines).
- (i) This question was fairly done by most of the candidates. Some candidates who gained a mark did not use the correct format (X of Y) in the footer instead the candidates used the page numbering of a different format like page 1, 2, 3 whilst other candidates who gained a mark had the format but started page numbering at 0. Some candidates who did not attempt to the page numbering question.

Section B

- 2** (a) Almost all the candidates were able to insert candidate number/name in the footer. Candidates who got it wrong inserted the candidate name/number in the header or did not attempt to the question.
- (b) This question was fairly done, most of the candidates managed to insert the gridlines. A few candidates used cell borders instead of gridlines or dotted lines, which is not acceptable. Some candidates did not attempt to the question at all.
- (c) This question was fairly done. Some used text highlight instead of shading the background to grey scale, others did not attempt to the question at all.
- (d) This question was well done by most candidates. The candidates produced a printout of correct formula/function in the formula sheet and /or values. Some weaker candidates had wrong values or did not attempt to the question at all.
- (e) The question was poorly done. Most of the candidates failed to insert the formula, some had the values without the formula, others used the wrong formula for COUNTIF whilst some failed to produce a printout of the formula sheet.
- (f) This question was poorly done. Most of the candidates did not submit the formula sheet. Some candidates had the correct formula but there was no evidence that they copied it down to the other cell. Other candidates had one condition correct in the formula while other had got it completely wrong but copied their wrong formula down. A lot of the candidates did not attempt the part question.
- (g) This question was fairly done. Some candidates only inserted the bar chart without labelling whilst others labelled but had a wrong chart. A lot of candidates did not attempt to the question.

Section C

- 3** (a) This question was well done by most of the candidates since they managed to create fields and enter data. Most of the candidates who did not get all the marks, did not create the fields instead they used Field 1, Field 2, Field 3... etc but entered data entry correctly. A few candidates made errors in the field names, they used spaces or dash instead of underscores, some had the typing errors in the actual data.
- (b) This question was well done. Most of those that got it wrong, did not attempt the part question, some amended the record to 112 instead of 113.
- (c) This question was fairly done. Most of the candidates were able to add the new field (Total_Enrolment) but were not able to insert a formula that calculates Total_Enrolment. Some candidates failed to create fields and also had incorrect calculations.
- (d) This question was fairly done. A few candidates who did well showed the report with the correct fields (Class, Borders and Day_Scholars) but had incorrect summary calculation or did not show the summary calculation at all. Some candidates showed the report with all the fields instead of the specified fields and had the correct summary calculation. Some candidates had

the report showing all the fields instead of the specified fields and did not have a summary calculation. Weaker candidates did not attempt the part question.

- (e) This question was poorly done. Few candidates managed to import and append the 10 records. A few candidates who did well for appending the records without importing thus having a printout with 4 records only. Most of the candidates did not attempt the part question.

PAPER 2: WRITTEN THEORY

General Comments

This years' cohort seemed to be a better compared to the previous year's cohort, reasons being, they were doing a lot better in high order questions than those of last year.

Centres are advised to use a 12-page Answer Booklet as some used additional full-page booklets instead of just additional answers sheets. Our observation is that all centres which used 12-page booklet did not have a problem of adding additional answer sheets.

Comments on Individual Questions

- 1 (a) (i) The part question was well done by almost all the candidates. They were able to give example of input devices manual and automated.
 - (ii) This part question was also well done. Candidates were able to give example of output device. except a few candidates who gave answers such as "Screen" which was not accepted. Candidates were expected to write correct names of any output device. Some of the accepted responses included Monitor, Printer, Speaker, Projector
 - (iii) The part question was fairly done as most of the candidates gave specialised output devices instead of input devices. Acceptable answers included Braille Keyboard, Microphone, Foot mouse, Eye typer etc.
- (b) This question was poorly done by most of the candidates. Majority of them managed to state at least one device stated in question 1(a). Some of the unacceptable points given by candidates include "Keyboard is used to enter data". The correct point is 'keyboard is used to type/key in characters'. Only a few candidates managed to describe the function of the specialised input device.
- 2 (a) This part question was well done with majority of candidates giving the correct term "System Software".
 - (b) This part question was well done with majority of candidates giving the correct term "application software".
 - (c) This part question was well done with majority of candidates giving the correct term "word processor".
 - (d) This part question was fairly done as some candidate chose "firmware" instead of "translator".
 - (e) This part question was fairly done as some candidate thought the correct answer was "Database" instead of "Spreadsheet".
- 3 (a) The question was well done as most of the candidates got this question correct except a few who gave features of categories of computers which made them lose marks. Expected responses were: 'Super computers, Mainframe computers, Mini computers and Micro computers'.

- (b) This part question was well done as most of the candidates were able to give categories of computers. However, some candidates still left some key words when differentiating the categories such as “small/large in size” instead of small/large in **physical** size and “speed” instead of **processing** speed.
- 4 (a) This part question was fairly done. Some of the responses given by candidates which were not accepted include ‘unit of storage’ instead of smallest unit of storage ‘0 s and 1 s’ instead of 0 **or** 1.
- (b) The part question was fairly done as most of the candidates got a mark. Only a few candidates got full marks. Some candidates sorted starting with the smallest unit of measure. Acceptable arrangement is “Gigabyte, Megabyte, Byte, Bit”
- 5 (a) This part question was poorly done. Only a few candidates managed to give at least one difference. Acceptable points include: “Data is meaningless whereas Information has meaning, Data is unprocessed whereas information is processed data”.
- (b) This part question was fairly done with majority of candidates being able to get one mark. Acceptable points include: “Analog data consists of varying quantities whereas digital data consist of discrete values, analog data is represented by sine wave whereas digital data is represented by a square wave”.
- (c) This part question was poorly done with a few candidates being able to get one mark. Acceptable points include: “Verification checks if data is same as the source whereas validation checks if data is sensible or reasonable, Verification is done after data entry whereas validation is done at a time of data entry, Verification is done by both software and manual whereas Validation is done by software only”.
- (d) Well done except a few candidates who confused primary storage and secondary storage with Ram and ROM. Answers such as ‘primary storage is temporary and secondary storage is permanent’ were not accepted. Acceptable points included “‘primary’ storage is expensive to buy while secondary storage is cheap to buy’ , ‘primary storage has less storage while secondary storage has more storage”.
- (e) Fairly done as majority of candidates managed to get at least 1 mark. Acceptable points included ‘Internet has more traffic while intranet has less traffic’, ‘internet is less secure while intranet is more secure’. Some candidates gave differences between WAN and LAN instead of Internet and intranet. They gave answers such as ‘internet cover large geographical area while intranet covers small area’, ‘internet is global vs intranet is private’ and such answers were not accepted.
- (f) Well done as most candidates gave two clear differences between RAM and ROM.
- 6 (a) This question was well done with majority of candidates being able to give two correct points.
- (b) This question was poorly done as some candidates gave devices instead of a storage media which made them lose a mark.

- 7** (a) The question was well done as most candidates gave correct health risks. Only a few candidates gave answers such as 'eye problems, back strain injury, eye strain injury' which were not accepted. Acceptable points included 'Back pain/ache, Eye strain, Repetitive strain injury, Tendonitis, computer vision syndrome'.
- (b) This question was well done except a few candidates who gave answers such as 'good/proper sitting posture for back ache, wearing spectacles for eye strain' which were not accepted. Acceptable points include correct/right posture, antiglare screen, taking break, wrist rest'.
- 8** (a) This part question was well done except a few candidates who gave 'oral interview' instead of 'interview'. Other correct points included 'Questionnaire, Observation, Document study/ Literature review'.
- (b) This part question was fairly done as candidates still fail to give the descriptions which distinguishes each method of data collection. Some candidates used the word 'observe' when explaining 'observation' which was not accepted. Some candidates explained 'oral interview' which was also not accepted.
- 9** (a) This part question was well done as majority of candidates gave correct points. Most of the candidates managed to score at least 1 mark. Some of the accepted response include running or executing infected file, booting a computer with infected removable media, opening infected email attachments.
- (b) This part question was well done as candidates also gave correct points. Some of the accepted responses include installation of an antivirus and update it regularly, install a firewall software.
- (c) This part question was fairly done as majority of candidates managed to give at least one method of backup. Acceptable points included 'Full backup, Differential backup and Incremental backup'.
- 10** (a) This part question was well done as majority of candidates were able to come up with the data types for each field. Acceptable responses included:

Field	Data types
Student_name	Text
Student_no	Text, Alphanumeric, Number
Date	Date/time

- (b) This part question was fairly done as candidates only managed to give the correct validation checks and failed to give the correct description. Most of the candidates failed to include the Student_no in their descriptions. Some of the acceptable responses included: length check to make sure that data entered in the Student_no field has the required number of digits or characters; presence check to makes sure that the field Student_no is not left blank or to make

sure that data has been keyed in the field Student_no; character/type check to make sure that data entered in the Students_no field must be of data type of number or text and range check to make sure that data entered in the field Student_no field must fall within a specified limit.

- (c) (i) This part question was well done as most candidates were able to give the correct implementation strategy. Accepted responses: Pilot implementation
- (ii) This part question was fairly done as most candidates were able to state the implementation strategies and failed to explain them. They gave incomplete descriptions failing to mention the 'time' factor. Accepted responses included Direct Implementation: Changing from the old system to the new system all at once; Parallel running implementation: The new system is used alongside the old system for a certain period of time until such time that the new system can be used on its own.
- (iii) This part was well done: Accepted responses: On the job training, enrolling for short courses; Using training manual, attending Workshops
- (d) This part question was well done as majority of candidates were able to give correct points in both (i) and (ii). Some of the accepted responses included:
- (i) Work will be done faster as computers can process data quickly; reduced workload; accurate data can be captured.
- (ii) Employee might lose their jobs; employee might be prone to health risk; employee might loss data stored in the computer due to viruses
- (e) (i) This part question poorly done as candidates gave positive impacts of employee or student instead of implications for the school. Some of the accepted responses included more admissions will be carried out in a short period of time reducing queues; retrieval of students records will be done fast; accurate students records will be kept.
- (ii) This part question was well done. Some of the accepted responses included loss of data or students records due to virus; disruption of service due to power cuts; expensive to train employees
- 11 (a) This part question was well done with majority of candidates being able to define the term network correctly. Some of the accepted responses included connection of computer together to share resources.
- (b) This part question was well done by majority of students who were able to give correct advantages of networking. Some of the accepted resources included: Networking allows fast communication; Networking allows for file sharing; Networking allows for hardware sharing; Networking allows for centralised storage
- (c) (i) This part question was poorly done as most of the candidates were not able to give the function of the network interface card. Acceptable points included: "provide physical connection of devices to a network".

- (ii) This part question was well done as most of the candidates were able to give the correct function of the router. Some of the accepted responses included: Enable packets to be sent to different networks; Allows local area network to access the internet
 - (iii) This part question was poorly done as candidates failed to give the correct function of the HUB instead they gave the general function of all networking hardware instead of giving a specific function of the HUB. Acceptable points included a central device that provides additional ports to connect multiple devices on a network”.
 - (d) This part of the question was well done with all most all candidates being able to give services provided by the internet. Some of the accepted points included: Electronic mail; Electronic commerce; Online banking
- 12** (a) This part question was well done as most of the candidates managed to identify the analogue to digital converter and stated its use. Some candidates gave modem as the answer, and it was not accepted. The acceptable response was Device: Analogue to Digital converter; Use: Changes analogue water level signal to digital water level signal
- (b) This part question was well done as majority of candidates got half of the marks. Some of the acceptable responses included: Microprocessor will receive the digital water level signals; Microprocessor then compares the received digital water level signals with the set minimum and maximum water level; If the water level signal received by the microprocessor is below the minimum, a signal will be sent for the water outlet valve to close and the water inlet valve to open.
- (c) This part question was well done by majority of candidates as they were able to state the precaution to guard against system malfunction. Some of the accepted responses included: Circuit breaker switch, Alarm
- 13** The question was fairly done as majority of candidates were able to indicate the output of the algorithm. However, some struggled with the processes and logic of the algorithm. Some included either price rate or amount paid as the input which was supposed to be calculated field. Some candidates used wrong symbols for the program flowchart while some swapped > and < symbols.
- 14** The question was well done as most of the candidates scored 4 or more marks out of 6. However, some candidates did not attempt to answer the question with some only indicating the start and stop symbols which were not awarded a mark.