

- ✓ Headgear-To channel images and sound from the source to the eyes producing a 3D effect
- ✓ Gloves
- ✓ Body suit-sense body movement and relay data into virtual reality system
- ✓ Virtual reality software. (**Any three well explained points 1 x 3 = 3 mks**)

11. - Process control
 - CAD / CAM (**Any two well highlighted each 1 mk x 2 = 2mks**)
 - Simulation.

- 12.i) a) Absolute
 b) Mixed
 c) Relative

ii) Give three uses of spreadsheets in a government office concerned with carrying out national census

- ✓ Tallying population size
- ✓ Establishing demographic trends
- ✓ Drawing pie charts to show population share for men and women
- ✓ Doing census budgets

13.

- ✓ Biometric scanner: It captures biometric details like fingerprints
- ✓ Digital camera: captures the voters photographs
- ✓ Keyboard: key in the voters details
- ✓ Mouse: issue command to the computer.

any other relevant input device

14. State any four security control measures that can be taken to detect and protect computer systems against computer crimes

- ✓ Installation of anti – virus
- ✓ Use of passwords
- ✓ Audit trail
- ✓ Fire wall **first four @ ½ mk = 2 mks**

15. **List four** features of Electronic mail

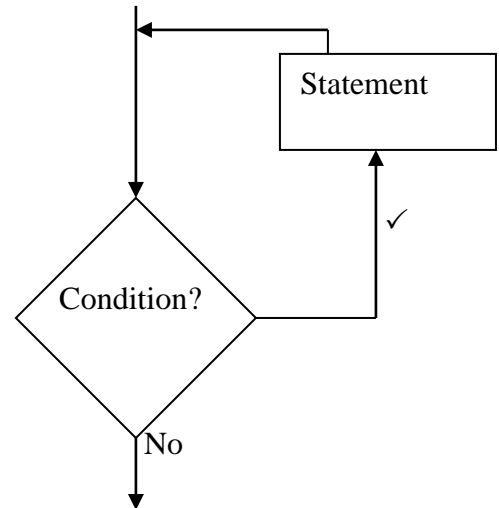
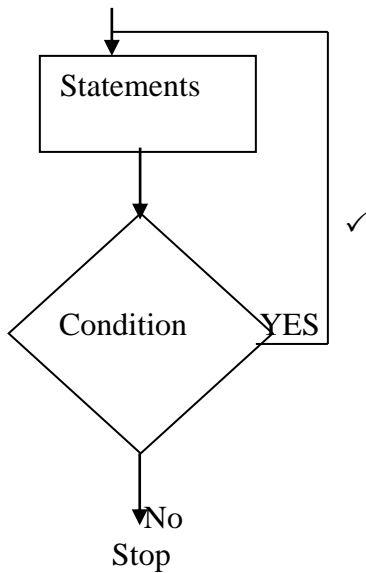
- ✓ checking mails
- ✓ compose message
- ✓ send mail
- ✓ Saving messages
- ✓ Printing mails
- ✓ Forwarded messages **first four @ ½ mk = 2 mks**

16. a) i) A programming language that translates an assembly language into machine language. (1mk)
 ii) This is a program that has not been broken down into smaller modules/chunks

b)

REPEAT – UNTIL

WHILE – DO



In repeat – until the statements are executed before the condition is tested while in the while do the condition is tested before the statements are executed . ✓✓ 4 mks

c) i) Connectors

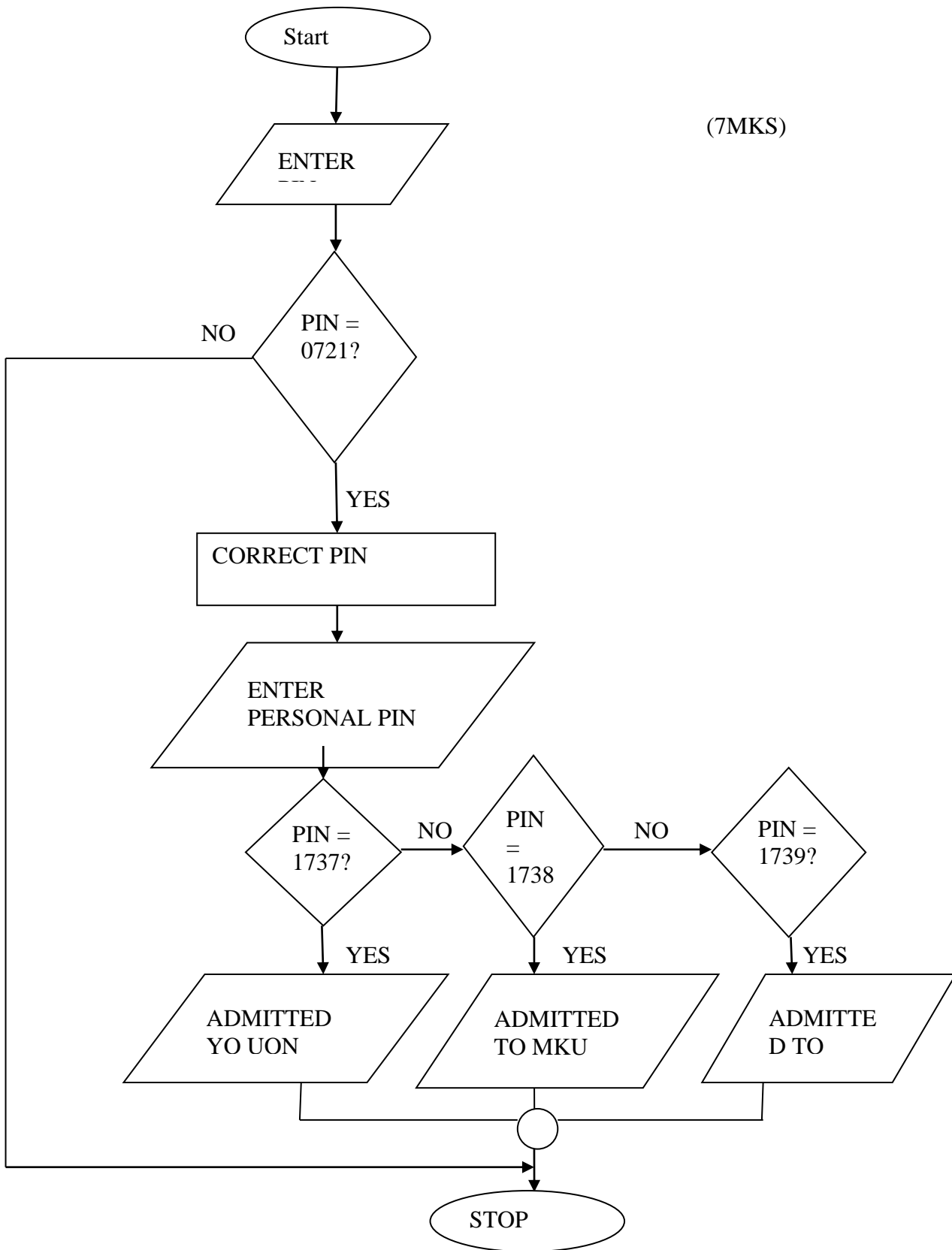
ii) Used to join the logical flow

(2mks)

(d) state three functions of programming language translators (3 marks)

- Translate high level languages to machine languages
- Detects errors on the source code
- organize the storage of variables used in the computer
- Link program with the operating system

(7MKS)



17. a) i) Study of available documents
- Interview
- Questionnaires
- Observation
- Automated methods

(Each 1 mk x 4 = 4mks)

- ii) Flowcharts
 - Data flow diagrams
 - Entity relationship models
 - Structured charts
 - Decision tables/trees

iii) Give one likely consequence of a project that does not stick to its schedule

- it will overshoot its budget
- It will not be concluded within the specified time

b) Entropy-process in which system decays/fails to meet the needs of an organization with time

Controls --- system control is a method by which a system adapts to changes in the environment in order to give the expected output or perform at the expected level.

(Well explained each 2 mks x 2 = 4mks)

- c) - Supporting information processing
- Help in decision making
- Enable sharing information *(Each 1 mk x 4 = 4mks)*

18. (a) Distinguish between the following pairs of word processing terms

i) A widow and an orphan (2 marks)

A widow is a heading without the appropriate body part while an orphan is the body without the heading.

ii) Footnote and end notes (2 marks)

Footnotes are short text in large documents to explain, comment on, or provide references for text in a document and appear at the bottom of the page while **endnotes** are comments or references for text in a document, that appear at the end of a section or the document

b) Study the Ms Word table below and answer question which follow

Item	Quantity	Price(sh)	Total
Bread	2	33.0	66.0
Milk(litres)	4	30.0	
Potatoes	1	75.0	
Others	Cooking fat(kg)	1	A
	Salt(250 g)	1	15.0
Total			B

(i) Supply a formula or function in Cell with letter A to calculate the total amount spent on 1 kg of cooking fat (2 marks)

= *product ([left])or =C5*D5*

(ii) Supply a formula or function in cell with letter B to calculate total expenditure on all items (2 marks)

= *sum ([above])or =E2+E3+E4+E5*

a) The following is a spreadsheet relating to a farmer.

	A	B	C
1	Crop	Amount	Not viable
2	Maize	150	Not viable
3	Bean	300	Not viable
4	Cashew nuts	850	Moderate
5	Cabbages	1036	viable

i) a function =IF(B2<200 “Not Viable”), IF(B2>300,” Moderate”), IF (B2>1000, “Viable”))). Give the appropriate result returned in cells C2, C3, C4 and C5

i) iii) A dynaset: Is the result returned by a query (1 mk)

- d) - Flat model
- Related model
- Hierarchical model

(1 x 3 = 3mks)

19.a) -

o Used for holding data & instructions required immediately by the CPU

- ✓ It is accessed directly by the CPU
- ✓ Provides fast access to information is accurate & reliable
- ✓ It is expensive per bit of memory dues to the technology involved
- ✓ It has low/ limited storage capacity
- ✓ It is volatile & therefore it is used to store temporary programs & data

(b) A computer virus is malicious software which may affect the smooth running of a computer system or carry out illegal activities in the computer.

(i) Name three types of computer viruses and state the effect of each when it gets in to a computer (3 marks)

- *Boot sector virus which destroy booting information on the media*
- *File virus which attach themselves to files*
- *Hoax virus come as e-mails with attractive messages and launches themselves when mails are opened*
- *Trojan horse which appear to perform useful functions but performs undesirable functions in the background*
- *Worms are programs which replicates hence clogging the system memory*

(well explained first 3 @ 1 = 3mks)

(ii) State any two methods to control infection of a standalone computer by virus

(First 2x1 = 2 marks)

- *Install latest version of anti-virus software and ensure that you update regularly*
- *Scan any new storage media before opening their content*

b) Mr. yego, the Biology teacher, intends to use a multimedia system to demonstrate dissection of a frog.

(i) What is a multimedia system? (1 mark)

- *It's a system which transmit information using more than one media such as text and graphics or sound and animation*
- *A combination of video, audio, text and images to provide interactive, creative and effective way of producing and communicating information.*

(ii) List four components that make a multimedia system (2 marks)

- *Speakers, CD/DVD drive, Sound card and SVGA(super video graphics array) monitor*

first four @ 1/2 mk = 2 mks

LED
Speakers (3mks)
Monitors

20 Guided/bounded

unguided /unbounded

a) Transmission that is directional

Transmission that is not directional

• In bounded media, data signals are transmitted from the source to the destination through a restricted pathway, e.g., two open wire cables, twisted pair cables, Coaxial cables, fiber optic cables.

• Unbounded media transmits data without physical connections, e.g. microwave, satellite, radio, infrared communication.

c) Connects computer

Connects network

d) Linking mobile phone in communication

Transfer of data from one point to another

e) Most of work done manually

Hate message sent through mobile phone

Poor storage of election results

(3 well explained @ 1 = 3 mks)

e) DTE is any device e.g. a computer workstation on a network, while a DCE ends / marks the end of physical network circuit.

(2mks)