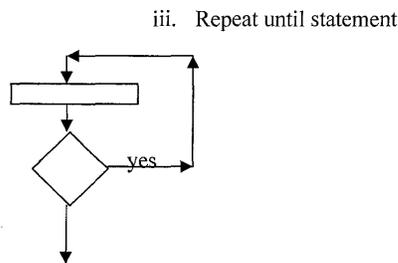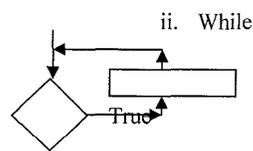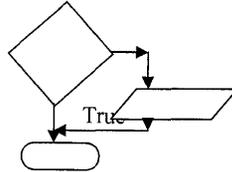**NANDI CENTRAL DISTRICT 2009**
COMPUTER STUDIES
MARKING SCHEME
Paper l (THEORY)
451/1

SECTION A

1. (a) Data signal is a voltage level in a circuit which represents the flow of data   (lmk)
   (b) Analogue data it is a data signal which can take any value within a range   (lmk)
2. (a) -It a tangible copy of data printed out from a computer   (lmk)
   (b) - To provide communication with clients
      - For back up purposes
      - to communicate with persons not using the computers   (Any 2x1=2mks)
3. The cd is not properly inserted
      - The capacity of the cd is less than the data size
      - The cd may be damaged
      - There are no CD drivers in the computer
      - The CD drive is damaged   (Any 3x1=3mks)
4. a) - The ease with which a user can get acquainted to the different features of the software
   b) - The ability of software to be used in different families of computers.
   c) - The ability of the software to read and process files of the existing software.
5. - Ram capacity
   - Processor speed
   - Storage capacity
   - Availability of drives/writers/and ports
   - Communication ports
   - Input and output devices
6. a) — arrange files for easy access
   b) — To create more space in the disk
7. - Exchange of information
   - Research can be carried out with the computer
   - Perform E-commerce, E —learning
   - Get updates of the latest software
8. i.   Title case -Mock Examinations
   ii.   Toggle case- mOCK eXAMINATIONS
   +   fill handle to copy a formula or data down a row or across a column
   ⟷   When moving or selecting a chart a graphic

9. - Select query is used for searching and analyzing data in one or more tables. Action queries are used to make changes to many records once
10. - One salesman has many customers   (1mk)
    - Many customers deal with many goods   (1mk)
11. - Using one's compliment - 11101010   (1mk)
    - Using two's compliment - 11101011   (1mk)
    - Using a sign Bit—(1)00010101   (1mk)
12. - Security issues information on the network is prone to more illegal access.
    - Moral and cultural effects — underage children can access pornographic material
    - Spread of vices like money laundering
    - Drug trafficking becomes easier
    - Over reliance on networks (any 4 V2 mark each)
13. (a)   The use electronic devices and software to emulate the neurological structure of the human
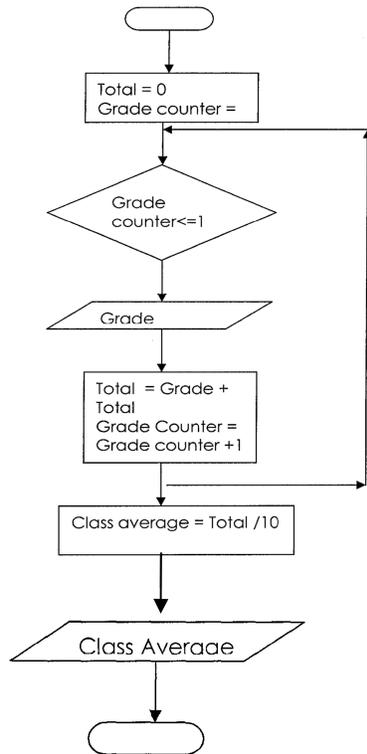
rain.
- The neurodes can be trained to distinguish what constitutes a signal
- They are capable of recognizing patterns in large amount of data that are too complex for human brain.

14. - In job displacement an employee is moved to another department while in job replacement the job is replaced and done by computer.

15 (a) - So that the program can be modified even when the programmer is not present.
- So that in case of a malfunction of the program the error codes can be corrected.
- Other programmers may think of modifying the program

(b) i. If then

ii. While

iii. Repeat until statement

SECTION B

16. (a) - HTML
- Java Script
- Vb script
- Hypertext processor

(b) - Using test data
- Desk checking (dry running)
- Using debugging utilities

2

Flowchart:
- (Start oval)
- Total = 0 / Grade counter =
- Decision: Grade counter<=1
- Grade (input)
- Total = Grade + Total / Grade Counter = Grade counter +1
- Class average = Total /10
- Class Average (output)
- (Stop oval)

½ mark for start and stop bits
1 mark for statement total = 0 and grade counter =1
1 mark decision
1 mark for input grade
1 mark Total = Grade + Total
1 mark Grade Counter
1 mark looping
1 mark Class average
1/2 mark output grade

17. (a) - Data is represented in magnetic media in that magnetic field in one direction on magnetic media is interpreted as 1 while field in the opposite direction is interpreted as O
- The data is stored in pits and lands The presence of light is interpreted as 1 while its absence is interpreted as o
- Data is represented as a ray of light

(b) - Modification is difficult because adding or removing a device can disrupt the whole network
- Trouble shooting can be difficult
- One device or media breakdown can affect the entire network

(c) - it is used for station bypass in the event a station fails. (2mks)

(d) - deals with the way data passes from one device to another on the network of components of the network
Physical topology - physical layout or arrangement

(e) - Computer
- NIC card
- A hub or switch
- Transmission media
- RJ45 connectors

18. (a) 1111011. 101 12
$(1*20)+(1*21)+(0*22)+(1*23)+(1*24)+(1*25) + (1*26). (1*2-1) + (0*22) + (1*23) + (1*24)$

3

123. 5875
(b)   (i) To hold input data during transaction processing
          (ii) For look up purposes
          (iii) To store relatively permanent records
(c)   Misreading errors- brought about by incorrect reading of source documents
          Transposition errors — result from incorrect arrangement of characters
(d)   - Back up data on external storage media
          - Control access to data by enforcing security measures
          - Design interface that minimize chances of invalid data entry
          - Using error detection and correction software when transmitting data
          - Using devices that capture data at source
(e)   i.   Magnetic tape
          -       Serially
          ii.   Flash disk
          -       Randomly

19   (a)   - Using read only option
           - Saving using password
    (b) >#1/1/2006
    (c) (i)
          1/1/2007   East 1425-A
          12/1/2008   North 1426-B
      (ii) None
    (d) 0000-0
(f)   (i)   3
          (ii)   sumif(A1;A3,>"S")
          (iii)   &C7 + D$3

20.   a.   i.

-      It is a text or a picture on the electronic document that causes other web pages to open when the link is clicked
              ii
-      Process of accessing internet resources like web pages and websites
              iii
-      these are other files like pictures and music attached to a file for sharing
          b.
-      Reinforcing ceilings with steel wires
-      Enforcing surveillance
-      Employing a watchman to watch over the computer lab
-      Fitting heavy vertical and horizontal metal bars in windows to block intruders from gaining entry into the laboratory
          c.
-      Receipts
-      Invoice
-      Delivery notes
-      Cash book
-      Order forms
-      Employees pay slips
-      Company registration certificate
-      Income tax reports
          d.
-      Cover letter
-      Title page

4

-          Table of contents
-          Executive summary of how the new system will be implemented
-          Outline of the study
-          Detailed Results of the study

       e.   What is a feasibility study?
               (1 mk)
-          This a study on how the project will be viable or not
       f.   Explain the importance of schedule feasibility
               (2mks)
-          To ascertain whether the project will be completed in time
-          To create a work plan on how the project will be implemented
       g.   After developing a system it is important to prepare a user manual. List four uses
of a user manual
               (4mks)
-          To explain how the project will be loaded
-          To explain the menus and sub menus
-          Explain error messages and how they can be avoided
-          Describe how to get to performing various tasks in the program
-          View samples of the program interfaces