

TESO FORM FOUR DISTRICT MOCK- 2007
 451/1
 COMPUTER
 PAPER 1

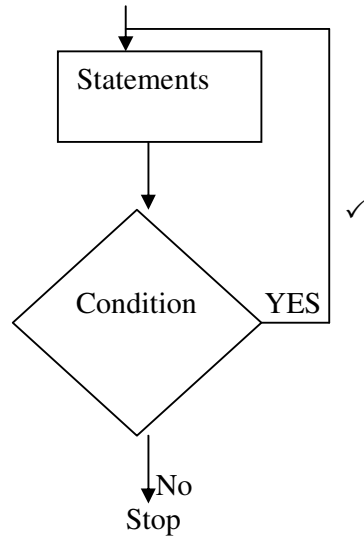
MARKING SCHEME.

1. a) Progressive decrease in magnitude and energy as a signal moves along a transmission medium.
- b) Interline interference (*Each 1 m x 2 = 2mks*)
2. a) The systematic arrangement of files in a computer secondary memory. (1mk)
- b)
 - i) Direct file access
 - ii) Indexed
 - iii) Serial - indexed (2mks)
3. - Hexadecimal
- Octals (Each 1 mk x 4 = 4mks)
- Decimal
- Binary
4. a) Changing of the digital data to analog data.
- b) Changing of the analog data back to digital data.
5. $1011_2 \checkmark - 111_2 \checkmark \quad \begin{array}{r} 00100_2 \checkmark \\ - \quad 000_2 \checkmark \\ \hline 00100_2 \checkmark \end{array}$ (4mks)
6. Digital computer
- Analog computer
- Hybrid Computer (Each 1 mk x 3 = 3mks)
7. a) An area in a DTP package where work is organized before placing it on the printable area. (1mk)
- b) pages used for general organization and format of a publication (1mk)
8. Used for relating records of similar characteristics within a database (1mk)
9. - Nic (Network Interface Card)
- Internet Service provider (Each 1 mk x 3 = 3mks)
- Internet O/s
10. a) A situation / condition in which a person becomes psychologically immersed in an artificial environment generated by a computer system. (1mk)
- b) - Headgear
- Gloves
- Body suit
- Virtual reality software.
11. - Process control
- CAD / CAM (Any two well highlighted each 1 mk x 2 = 2mks)
- Simulation.
12. a) Absolute
- b) Relative (Each 1 mk x 3 = 3mks)
- c) Mixed
13. - Work sheet
- Database
- Graphs
14. - Data source
- Main document

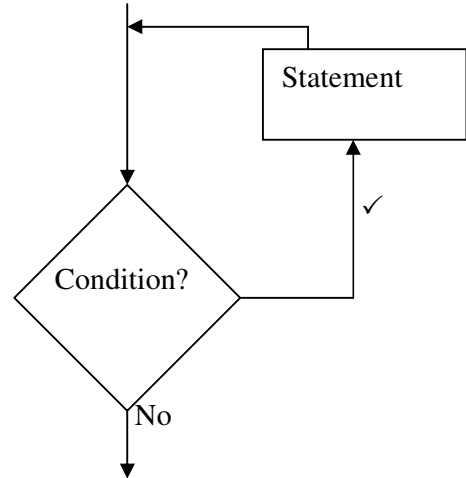
15. - LAN
 - WAN (2mks)

16. a) i) A programming language that translates an assembly language into machine language. (1mk)
 ii) A set of statements written in a readable language (English – like phrases) expressing the processing logic of a program. (1mk)

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)
17. a) i) Study of available documents
 - Interview
 - Questionnaires (Each 1 mk x 4 = 4mks)
 - Observation
 - Automated methods
 ii) Flowcharts
 - Data flow diagrams
 - Entity relationship models
 - Structured charts
- b) Entropy
 Controls (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) i) Data entered in a particular column of a record
 ii) Features of data e.g. format.
 iii) Data of related features / attributes (Each 2 x 3 = 6mks)
- b) Many – to – one
 One – to – one
 Many – to – many
- c) i) Database management systems (1mk)
 ii) - Keep data / store data
 - Process data
 - Analyse and output information (Each 1 mk x 3 = 3mks)

19. d) - Flat model
 - Related model
 - Hierarchical model *1 x 3 = 3mks*
- a) - Volatile
 - Limited
 - Very expensive
- b) $\frac{128}{8} = \frac{16}{2} = 8$ Million nibbles (4mks)
- c) i) - Joystick
 - Mouse
 - Light pen
 ii) Digitiser
- d) LED
 Speakers (3mks)
 Monitors
20. a) i) Twisted pair
 ii) Coaxial *(Each 1 mk x 3 = 3mks)*
 iii) Fibre optic
- b) - Installation equipment is cheap.
 - It is readily available in most building (2mks)
- c) **Bridge** – a network device that selectively determine the appropriate network segment for which a message is meant while a gateway is any device configured to provide access to wide area networks or internet.
- d) **NIC**- Creates physical link between the computer and the transmission media.
 Router – Interconnects different networks and directs the transfer of data packets from source to destination.
Repeater – boosts a weakening signal (6mks)
- 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)