COMPUTER SCIENCE HSSC-I

Time allowed: 2:40 Hours   Total Marks Sections B and C: 60
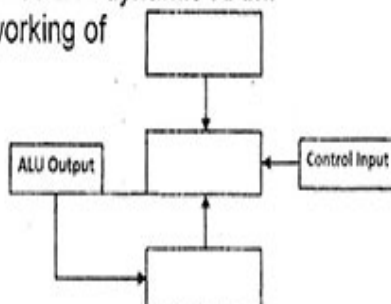
NOTE: The Questions of sections B and C are to be answered on the separately provided answer book. Use supplementary answer sheet i.e. Sheet–B if required. Write your answers neatly and legibly.
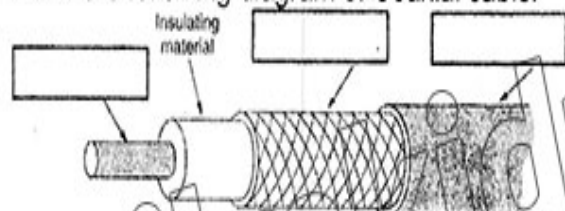
SECTION – B (Marks 36)

Q. 2 Answer any TWELVE parts. All parts carry equal marks.   (12 x 3 = 36)

(i) Differentiate between Shareware and Freeware.

(ii) Briefly explain the following types of computers:
(a) Mini computer (b) Micro computer

(iii) Write any three differences between volatile and non-volatile memory.

(iv) What is RAM? Write two differences between static and dynamic RAM.

(v) Label the following diagram which depicts the working of Arithmetic and Logic Unit.

(vi) Name four special purpose registers and explain working of any one of these.

(vii) Briefly explain any two types of system Buses.

(viii) Write down the importance of cooling system in computer system.

(ix) Label the following diagram of Coaxial cable.

(x) Write down the uses of the following database objects provided by MS-Access:
a) Table   b) Query   c) Report

(xi) Describe the following types of ROM:
a) PROM   b) EPROM

(xii) Write down any three differences between WiFi and WiMAX.

(xiii) What is GPS? Write its importance in wireless communication.

(xiv) A college has many departments and one department must belong to one college. Observe the situation carefully and draw the following:
a) E-R diagram   b) Identify the cardinalities

(xv) Transform the following E-R diagram to the Relational Schema
a) Transform Entities.   b) Transform Relationship

(xvi) What is 'query'? Write its purpose with one example.

SECTION – C (Marks 24)

Note: Attempt any THREE questions. All questions carry equal marks.   (3 x 8 = 24)

Q. 3 Describe the following Motherboard components.   (2x4)
(a) BIOS   (b) Memory Slot
(c) Disk controller   (d) Expansion slot

Q. 4 What is OSI Model!? Write down the protocols and devices used on each layer: (1+7)

Sr. No.	Layer	Protocol	Devices
i			
ii			
iii			
iv			
v			
vi			
vii			

Q. 5 Describe the following output devices.   (2x4)
a) LCD monitor   b) Dot Matrix Printer
c) Inkjet Printer   d) Plotter

Q. 6 A doctor sees many patients and a patient may have many doctors. Many doctors may consult on a test and recommend it. A doctor can recommend many tests to a patient. Patients have a token number, name and age. Doctor has name, qualification, specialization and contact no. likewise test has name, date, time and result of test. Patient, doctor and test have unique identifiers.   (3+1+4)
Observer the above scenario and answer the following:
a) List the entities   b) List attributes for each entity
c) Draw an E-R diagram and assign cardinalities

—— 1HA-I 2212 (L) ——