

**B. SC. (APPLIED SCIENCE-
ENERGY) (BSCAEY)**

Term-End Examination

June, 2026

**BEY-020 : COMPUTER BASICS AND PC
SOFTWARE**

Time : 3 Hours

Maximum Marks : 70

Note : *There are **two** Sections in this paper. All questions in Section—A are compulsory. Attempt any **three** questions from Section—B.*

Section—A

1. (a) Write and explain in brief on various technologies used in first to fifth generations of computers. 5
- (b) What is Network Topology ? Write and explain in brief about any *two* topologies with diagram with merits and limitations. 5

- (c) Define an operating system. Write in brief on multi-processing and time-sharing operating system. 5
- (d) Explain in brief the following in the context of a Database : 5
- (i) Primary key
 - (ii) Tuple
 - (iii) Query
 - (iv) Relationship
 - (v) Table
- (e) Explain in brief main memory and secondary memory of a computer system with examples. 5

Section—B

Note : Attempt any *three* question from question no. 2 to question no. 5.

2. (a) What is proprietary and open source software ? Write merits and limitation of both. 5
- (b) (i) What is a Binary Number System ? Why is it used in a computer system ? 3

- (ii) Convert the following : 2
(101010111)₂ into equivalent Hexa-
decimal and
(123ABCD)₁₆ into equivalent
binary.
- (c) Explain in brief about 'Seek Time' and
'Latency Time' with *one* example each
in the context of Access time on a
magnetic disk. 5
3. (a) Explain the following in brief : 5
- (i) Parallel port
(ii) Serial port
(iii) USB port
(iv) SCSI port
- (b) What is Mother Board of a computer
system ? Write in brief about any *four*
primary components of it. 5
- (c) Explain in brief about Client/Server
Architecture. 5
4. (a) What is Cloud Computing ? Write and
explain in brief about its key features. 5

- (b) What is software design paradigm ?
Write and explain any *two* software design paradigms. 5
- (c) What is a 'data type' in the context of programming ? Write and explain in brief about any *four* data types that are used in a programming language. 5
5. Explain in brief any *five* of the following :
5×3=15
- (i) Spreadsheet in excel
 - (ii) The 'Network layer' of OSI Reference model with any *two* protocols used in Network Layer
 - (iii) Role of a 'SWITCH' and 'ROUTER' devices in a Computer Network
 - (iv) Domain Name System (DNS)
 - (v) HTTPS protocol
 - (vi) Security threats on Internet

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