

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

Term-End Examination

December, 2025

**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) Convert the following : 5
- (i) $(ABCD9)_{16}$ into equivalent binary number
 - (ii) $(10101111001111)_2$ into equivalent hexadecimal number
 - (iii) $(57.6875)_{10}$ into equivalent binary number

- (iv) $(123456)_8$ into equivalent binary number
- (v) $(101011001101)_2$ into equivalent octal number
- (b) Define the term 'Operating System'. Write and explain any *four* functions of it. 5
- (c) Define the term 'Software'. Write and explain the following in brief : 5
- (i) System Software
- (ii) Application Software
- (d) Write and explain in brief on any *five* hardware components of a typical personal computer. 5
- (e) Write and explain in brief about any *two* cables used in a computer network. 5

Section—B

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

2. (a) Define a Compiler and Interpreter. Write at least *three* merits and demerits of both. 5

- (b) What is OSI Reference Model ? Explain in brief the network and transport layer of it with at least *two* protocols being used in each layer. 5
- (c) What is a 'Spreadsheet' in Excel ? Explain any *four* functions of it with *one* example for each. 5
3. (a) Define 'primary memory' of a computer system. Write and explain in brief about any *two* primary memories. 5
- (b) Write and explain in brief about HTTP and HTTPS protocols. 5
- (c) What is an IP Address ? Explain IPv₄ address with an example. What is e-Learning ? 5
4. (a) Explain in brief about e-Learning content development process along with a diagram. 5
- (b) What is a 'search engine' in the context of Internet ? Explain in brief any *two* prominent search engines. 5

(c) What is Social Networking ? Explain any *two* social networking media with their merits and limitations. 5

5. Write short notes on any *five* of the following : 5×3=15

(i) Network Protocol with an example

(ii) DRAM

(iii) Disk Fragmentation

(iv) Bus Topology

(v) VLAN

(vi) MICR and OCR

(vii) Procedure-oriented and Object-oriented programming language

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