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# BEY–020

## 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



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(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



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(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 $IPv_4$ 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



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(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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