

DK-106

December-2017

B.C.A., Sem.-I

CC-101 : Introduction to Computer and Emerging Technologies
(New Course)

Time : 3 Hours]

[Max. Marks : 70

1. (A) (1) What is Browser ? Describe the purpose of a search engine. 4
- (2) What is the difference between Desktop and All-in-ones ? 3

OR

Write a short-note on portable media player. 7

- (B) (1) Differentiate among voice, text, picture and video messages. 4
- (2) Define the following terms : 3
- (a) Server (b) Computer (c) Game console

OR

Write a short-note on Tablets. 7

2. (A) (1) Explain hard disk in brief. 4
- (2) Define the following terms : 3
- (a) Register (b) RAID (c) Access time

OR

(1) Describe the purpose of processor. Explain how multi-core and single-core processors are differ from each other. 4

(2) Describe the functions of USB adapter. 3

- (B) (1) What is memory card ? What is the use of it ? List the types of memory cards. 4

(2) Differentiate among CD-ROM, CD-R and CD-RW discs. 3

OR

(1) Give the difference between volatile and non-volatile memory. Give the example of each. 4

(2) What is external hard drive ? What is the use of it ? 3

3. (A) (1) Describe the technologies used by HDTV. Explain the capabilities of a Smart TV. 4

(2) Define the following terms : 3

(a) Software (b) Data projector (c) Stylus

OR

Explain how an ink-jet printer works ? Describe the mechanics of the ink cartridge in brief. 7

- (B) (1) Write a short-note on Touchpad. 4

(2) Explain the OCR and OMR technologies used by optical reader. 3

OR

Explain Display Technologies and Display Quality in brief. 7

4. (A) (1) Convert 42.351 from base 10 to base 2. 4
 (2) Convert 11011 from base 2 to base 10. 3
OR
 (1) Discuss ASCII code in detail. 4
 (2) Convert 101110100 from base 2 to base 16. 3
 (B) (1) Convert 6C.27 from base 16 to base 10. 4
 (2) Convert 227 from base 8 to base 10. 3
OR
 (1) Discuss Binary System in Computer Code. 4
 (2) Convert 0.532 from base 10 to base 8. 3
5. (A) State whether true or false : 7
 (1) A scanner is a light-sensing output device.
 (2) Smartphones typically communicate wirelessly with other devices or computers.
 (3) SLR cameras are much heavier and larger than point-and-shoot cameras.
 (4) Most computers and electronics devices are analog, which use only two discrete states: on and off.
 (5) The largest digit in decimal number system is 7.
 (6) CAPS LOCK and NUM LOCK are two examples of toggle keys.
 (7) Wearable devices mainly rely upon touch input.
- (B) Answer the following : 7
 (1) The _____ is the main circuit board of the computer.
 (a) ALU (b) CPU
 (c) motherboard (d) system chassis
 (2) A _____ is a single chip with two or more separate processor cores.
 (a) transistor (b) multi-core processor
 (c) resistor (d) capacitor
 (3) The process of copying audio and/or video data from a purchased disc and saving it on your own media is called _____.
 (a) ripping (b) burning
 (c) tearing (d) formatting
 (4) An Octal number system has _____ digits.
 (a) 8 (b) 16
 (c) 10 (d) 2
 (5) The 4-bit equivalent of the decimal number 5 is _____.
 (a) 0101 (b) 0100
 (c) 0110 (d) 1000
 (6) Which of the following is not an example of a pointing device ?
 (a) Touchpad (b) Trackball
 (c) Touch screen (d) Pointing stick
 (7) _____ displays use organic molecules that are self-illuminating and, thus, do not require a backlight.
 (a) OLED (b) TFT
 (c) LED (d) CCFL

DK-106

December-2017

B.C.A., Sem.-I

CC-101 : Fundamentals of Computer

(Old Course)

Time : 3 Hours]

[Max. Marks : 70

1. (A) (1) What is the difference between data and information ? 4
 (2) Write a short-note on Arithmetic and Logic Unit. 3

OR

 Write a short-note on advantages and disadvantages of Computers. 7
 (B) (1) Write a short-note on Machine Cycle. 4
 (2) Define the following terms : 3
 (a) Heat Sinks
 (b) Bit
 (c) Access time

OR

 Write a short-note on Categories of computers. 7
2. (A) (1) Explain touchpad and trackball in brief. 4
 (2) Explain POS terminal in brief. 3

OR

 Write a short-note on Key-board. 7
 (B) (1) Explain Optical Scanner in brief. 4
 (2) Write a short-note on Laser Printer. 3

OR

 Write a short-note on Smart Phones. 7
3. (A) (1) Explain CD-ROMs and DVD-ROMs in brief. 4
 (2) Explain RAID in brief. 3

OR

 Write a short-note on Hard Disks in brief. 7
 (B) (1) Write a short-note on Smart Cards. 4
 (2) Explain TAPE in brief. 3

OR

 Define File. Explain Backup file, Output file and Transaction file in brief. 7
4. (A) (1) Convert 35.25 from base 10 to base 2. 4
 (2) Convert 110011 from base 2 to base 10. 3

OR

 (1) Discuss 4-bit BCD system in brief. 4
 (2) Convert 11001100 from base 2 to base 16. 3

- (B) (1) Convert 2A.3C from base 16 to base 10. 4
 (2) Convert 123 from base 8 to base 10. 3
OR
 (1) Discuss Octal System in Computer Code. 4
 (2) Convert 0.77 from base 10 to base 8. 3

5. Answer the following : 14

- (1) A System Software consists of the programs that controls or maintain the operations of the computer and its devices. (True/False)
- (2) 'Byte' in computer terminology stands for 6 bits. (True/False)
- (3) The full form of PDA is _____.
- (4) A/An _____ is a series of instructions that tells a computer what to do and how to do it.
 - (a) Data (b) Processor
 - (c) Command (d) User response
- (5) Mother board is also called as System Board.(True/False)
- (6) An active matrix display is also known as thin-film transistor display.(True/False)
- (7) The speed of a(n) _____ is measured by the number of characters per second it can print.
 - (a) dot-matrix printer (b) laser printer
 - (c) ink-jet printer (d) thermal printer
- (8) _____ is the process of entering any sound into the computer such as speech, music, and sound effects.
 - (a) MIDI (b) Voice input
 - (c) Voice recognition (d) Audio input
- (9) The Processor is also called as _____.
 - (a) central processing unit (b) adapter card
 - (c) chip (d) motherboard
- (10) Writing is the process of transferring items from storage medium into memory.(True/False)
- (11) The full form of EBCDIC is _____.
 - (a) Extended Binary Coded Decimal Interchange Code
 - (b) Extended Binary Coded Decoder Interchange Code
 - (c) Extended Binary Coded Dynamic Interchange Case
 - (d) Extended Binary Coded Decimal Interchange Case
- (12) Hexadecimal number system has _____ digits.
- (13) A group of two or more integrated hard disks is called a _____.
- (14) _____ is the speed with which data, instructions, and information transfer to and from a device.
 - (a) Formatting (b) Access time
 - (c) Transfer rate (d) Reading