

## First Term Examination - 2015

### Information and Communication Technology - I

Grade 10

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Time : 1 hour

Name/ Index No. :

- Answer all questions.
  - In each of the 1 to 40, pick one of the alternatives (1), (2), (3), (4) which you consider as correct or appropriate.
01. Who invented the Adding Machine?  
(i) Gottfried Wilhelm (ii) Joseph Jacquard (iii) Charles Babbage (iv) Blaise Pascal
02. Howard Aiken invented the machine called,  
(i) Automatic Sequence Control Calculator (ii) a mechanical loom  
(iii) Abacus (iv) Pascaline
03. Not an attribute of information  
(i) Accuracy (ii) Size (iii) Relevance (iv) Timeliness
04. Consider the following statements.  
A - Keyboard is an input device  
B - Monitor is an output device  
C - Flash Drive is a storage device  
Which of the above is / are true?  
(i) A only (ii) B only (iii) A and C only (iv) All A, B and C
05. Under which of the following categories is a Personal Digital Assistance classified?  
(i) Micro computer (ii) Mini computer (iii) Main frame (iv) Super computer
06. Disadvantage of a micro computer than a mini computer is,  
(i) Less electricity consumption. (ii) Small in size  
(iii) Less expensive (iv) Less memory capacity
07. Which of the following is not a way of giving information as the output?  
(i) Soft Copy (ii) Live Copy (iii) Hard Copy (iv) Sound Copy
08. An example for non-impact printer is,  
(i) Line printer (ii) Thermal printer (iii) Daisy wheel printer (iv) Dot Matrix Printer
09. The smallest unit of information is  
(i) a byte (ii) a nibble (iii) a bit (iv) a block
10. An example for volatile memory is.  
(i) Random Access Memory (ii) Compact Disk  
(iii) Cache Memory (iv) Hard Disk

11. Which of the following is not a secondary storage media?  
 (i) Solid State Media (ii) Magnetic Media (iii) Optical Media (iv) Static Media
12. Consider the following statements.  
 A - Magnetic Tapes are used to back up data and information in server computers  
 B - Hard disk is an example for read/writers memory  
 C - Magnetic Media are used for read and write data and information in compact disk  
 Which of the above is / are true ?  
 (i) A only (ii) B only (iii) A and B only (iv) All A, B and C
13.  $A74_{16}$  (hexadecimal) is equals to...  
 (i)  $1521_s$  (ii)  $5164_s$  (iii)  $1251_s$  (iv)  $1526_s$
14. The decimal number 839 is equal to  
 (i)  $1A9_{16}$  (ii)  $347_{16}$  (iii)  $1C8_{16}$  (iv)  $2D9_{16}$
15. Binary coded decimal equivalent to 94 is?  
 (i) 1010010 (ii) 10010010 (iii) 01011110 (iv) 100010010
16. Unequal of decimal number 25 is,  
 (i)  $11001_2$  (ii)  $19_{16}$  (iii)  $11101_2$  (iv)  $31_8$
17. 16 characters can be represented in BCD code. The BCD value of decimal 8 is,  
 (i)  $11101_{BCD}$  (ii)  $1010_{BCD}$  (iii)  $00010000_{BCD}$  (iv)  $1000_{BCD}$
18. If  $X = 10102$  and  $Y = 111_2$  the value of  $X = Y$  is.  
 (i)  $11_{16}$  (ii)  $111_{12}$  (iii)  $10_8$  (iv) 27
19. What is the base value of the number system that consist of the digit set  $\{0, 1, 2, 3, 4, 5, 6, 7\}$ ?  
 (i) Two (ii) Eight (iii) Sixteen (iv) Seven
20. Which cannot be the result after deduct 1 from the number 1000 with unknown base.  
 (i) 111 (ii) FFF (iii) 1111 (iv) 999
21. What is the MSD and LSD of the binary 0100010 respectively ?  
 (i) 0,0 (ii) 0,1 (iii) 1,0 (iv) 1,1
22. Which is the value equal to  $3 \times 2^{20}$  Byte.  
 (i)  $3 \times 2^{24}$  Bits (ii)  $3 \times 2048$  MB (iii)  $3 \times 2048$  KB (iv)  $3 \times 1024$  KB
23. Which Hexadecimal value is equal to the binary 11111111?



- (i) Only i                      (ii) Only i, ii and iii      (iii) Only ii, iii and iv      (iv) All of the above
34. Which of the following performs modulation and demodulation in data communication?
- (i) Network Interface Card                      (ii) Satellite  
(iii) Switch    (iv) MODEM
35. Select the incorrect statement regarding the Audio Port.
- (i) Audio port is used to connect Speakers, Microphones and external sound generating devices.  
(ii) Line in is used to input sounds  
(iii) Line out is in the colour pink  
(iv) Line in is the colour blue
36. School Net is a network that connects 1000 secondary schools, 100 computer resource centers and many other institutes relating to education across Sri Lanka. Which of the following network type is most appropriate for school next?
- (i) Local Area Network                      (ii) Metropolitan Area Network  
(iii) Wide Area network                      (iv) Bluetooth network
37. Which of the following computerized medical equipment uses radio waves technology?
- (i) CT Scanner      (ii) CAT Scanner      (iii) MRI Scanner      (iv) EEG Scanner
38. Selection of a suitable communication media is extremely crucial in expecting good performance from the network. If you only consider the "high speed data transmission", what will be your selection?
- (i) Coaxial cable                                      (ii) Twisted pair cable  
(iii) Fiber - Optical cable                      (iv) Shielded twisted pair cable
39. What is the correct answer for a feature of a portable computer ?
- (i) Lightweight      (ii) Small                      (iii) LCD screen      (iv) All of the above
40. The founder of the WWW is
- (i) Charles Babage      (ii) Tim Berners Lee      (iii) Joshop Jackard      (v) Kelvin

## First Term Examination - 2015

# Information and Communication Technology - II

Grade 10

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Time : 2 hours

Name/ Index No. :

- Answer five questions only, including question No. 1 and 4 other questions.
- First question carries 20 marks and each of the other questions carries 10 marks.

01. (i) Describe what is Information and Data by giving an example.  
 (ii) Copy the following table to your answer sheet and fill the blanks.

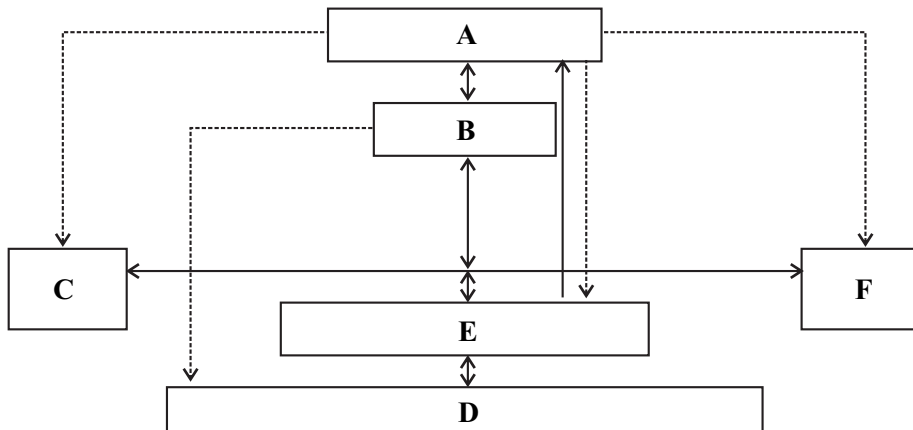
Generation	Technology used
1 <sup>st</sup> generation	
2 <sup>nd</sup> generation	
3 <sup>rd</sup> generation	
4 <sup>th</sup> generation	

- (iii) Place a tick (✓) (✗) in the correct box to show whether each of the following sentences are TRUE or FALSE.

	TRUE	FALSE
ROM stands for Random Only Memory.	<input type="checkbox"/>	<input type="checkbox"/>
ROM is permanent memory.	<input type="checkbox"/>	<input type="checkbox"/>
RAM stores data temporarily.	<input type="checkbox"/>	<input type="checkbox"/>
Adding more RAM to a computer will increase its processing power.	<input type="checkbox"/>	<input type="checkbox"/>

- (iv) Give 3 examples for Micro Computers.  
 (v) Write two examples for full duplex data transmission.  
 (vi) Convert 10010010<sub>2</sub> binary numbers into decimal. Show your computations.  
 (vii) Write two instances that Information and Communication Technology use in Banking field.  
 (viii) Give two advantages of flash memory over a DVD - RW  
 (ix) Write two advantages of star topology.  
 (x) Write four advantages of later generation computers other than 1<sup>st</sup> generation computers.

02. The block diagram of a computer system is given below.



- (i) Name the components marked with letters A, B, C, D, E and F.
- (ii) Give two examples each for the components A, D and F
- (iii) The above computer system is used for numerical calculations of several numbers. In which component does this operation take place?
- (iv) Krishan prepares a report using a computer system. First he types a part of the report and saves it. After two days, he opens the partially completed report and completed report and completed it. He then took printouts of the report.
- Identify the components among A, B, C, D, E and F that correspond to each of the following activities.
1. Typing the report
  2. Saving the report
  3. Printing the report.
- (v) What is the function of component E in carrying out the activities in (iv) above?
03. Identify the following ports and answer the questions given below.
- (i) Name type of the port, number of pins/holes and write device/devices connect to them.
- Serial Port
  - Parallel Port
  - VGA Port
  - PS/2 Port
- (ii) Write two special features of universal serial bus port.
04. Transmission of data from one place to another place is called Data Communication.
- (i) What are the basic parts needed for data communication.
- (ii) Write two main types of data communication media by giving two examples for each.
- (iii) Name data transmission modes by giving one example for each.
05. With the development of the data communication, it is very important to develop the computer network in an organization.
- (i) Name two computer network connecting devices.
- (ii) Name the main types of computer networks.
- (iii) Name two network topologies and briefly explain them by giving advantages and disadvantages of them.
- (iv) Write two advantages and two disadvantages of computer networking.
06. Write short notes on 4 of the followings.
- a. School - Net in Sri Lanka.
  - b. using ICT in field of transportation.
  - c. Social problems you faced by using computers.
  - d. Computer is a learning tool.