

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
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Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka

80 E I, II

අධ්‍යයන පොදු සහතික පත්‍ර (සාමාන්‍ය පෙළ) විභාගය, 2010 දෙසැම්බර්
கல்விப் பொதுத் தராதரப் பத்திர (சாதாரண தர)ப் பரீட்சை, 2010 டிசெம்பர்
General Certificate of Education (Ord. Level) Examination, December 2010

තොරතුරු හා සන්නිවේදන තාක්ෂණය	I, II	භූය කුනඨී மூன்று மணித்தியாலம் Three hours
தகவல், தொடர்பாடல் தொழினுட்பவியல்	I, II	
Information & Communication Technology I, II		

Information and Communication Technology I

- Note: (i) Answer all questions.
(ii) In each of the questions 1 to 40, pick one of the alternatives (1), (2), (3), (4) which you consider as correct or most appropriate.
(iii) Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.
(iv) Further instructions are given on the back of the answer sheet. Follow them carefully.

- “As vacuum tubes were replaced by transistors and transistors were subsequently replaced by micro processors, the(A)..... of the computers reduced.”
Which of the following terms is appropriate for (A) ?
(1) capability (2) size (3) reliability (4) efficiency
- “...(B)..... is processed into ...(C)..... by information systems.”
Which of the following pairs of terms is appropriate for (B) and (C), respectively?
(1) Information, data (2) Data, information (3) Data, instructions (4) Instructions, information
- Consider the following computer devices:
A - Keyboard B - Scanner C - Printer D - Speaker
Which of the above could be used as input devices of a computer?
(1) A and B only (2) A and C only (3) C and D only (4) All A, B, C and D
- Consider the following statements:
A - Random Access Memory (RAM) is a volatile memory.
B - Hard disk is an auxiliary storage device.
C - A floppy disk can store more data than a compact disk (CD).
Which of the above is/are correct?
(1) A only (2) C only
(3) A and B only (4) B and C only
- Identify A, B and C from Figure 1.
(1) A = power socket, B = PS/2 port, C = USB port
(2) A = power socket, B = serial port, C = PS/2 port
(3) A = power socket, B = parallel port, C = serial port
(4) A = parallel port, B = serial port, C = USB port
- 2GB of memory is equivalent to
(1) 2048 KB. (2) 2¹¹ MB.
(3) 2¹⁰ MB. (4) 1024 MB.
- The octal equivalent of binary 11001 is
(1) 21. (2) 31.
(3) 37. (4) 41.
- Which of the following is the largest?
(1) 1001100₂ (2) 1001010₂
(3) 1010101₂ (4) 1100000₂

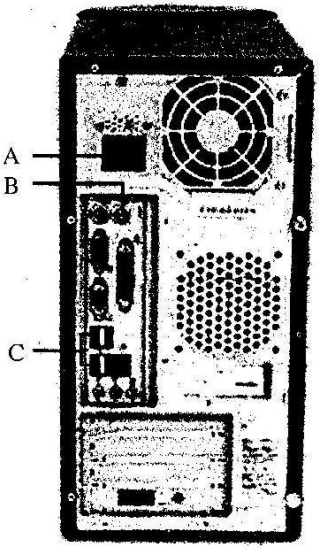
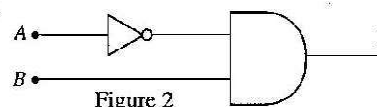


Figure 1

9. If the character 'C' is represented as 100001_2 in the ASCII code, what is the equivalent ASCII code for character 'A'?
- (1) 100001_2 (2) 100010_2 (3) 100000_2 (4) 1000100_2
10. A teacher enters the number of students in the class as 35 to the computer using the keyboard. This number is represented in the Random Access Memory (RAM) of the computer in binary form. The number of students stored in the RAM is
- (1) 100010_2 (2) 100110_2 (3) 100111_2 (4) 100011_2

11. If the output of the logic circuit in Figure 2 is 1, what should be the values of A and B, respectively?



- (1) 0 and 0 (2) 1 and 0
 (3) 0 and 1 (4) 1 and 1
12. A student could select either string hoppers or bread to eat with dhal curry for his breakfast. Which of the following logical operations correctly represents this scenario?
- (1) AND followed by OR (2) OR followed by AND
 (3) OR followed by OR (4) AND followed by AND

13. Consider the following tasks:

- A - Protecting data against viruses
- B - Keeping track of files and directories (folders) in storage devices
- C - Controlling peripheral devices such as disk drives and printers
- D - Providing facilities for graphic design

Which of the above are tasks of an Operating System?

- (1) A and B only (2) B and C only (3) A, B and C only (4) All A, B, C and D
14. Consider the following statements about word processing software:
- A - It allows to format characters into different sizes and colours.
 - B - It allows to draw shapes and diagrams in a document.
 - C - It allows to edit digital video and audio files.

Which of the above is/are correct?

- (1) A only (2) A and B only (3) All A, B and C (4) None of them
15. Consider the following statements about word processing software:
- A - It can replace all occurrences of the single word 'Ceylon' with the two words 'Sri Lanka' in an existing document.
 - B - It can justify text along the right margin of a document.
 - C - It can insert page numbers only at the bottom of a document.

Which of the above is/are correct?

- (1) A only (2) B only (3) A and B only (4) All A, B and C
16. Consider the following:
- A - E\$5\$ B - \$E\$5 C - \$5E\$ D - E\$5
- Which of the above is/are correct forms of cell addresses in a spreadsheet?
- (1) B only (2) A and C only (3) B and D only (4) None of them

17. Intersection of a row and a column of a spreadsheet is known as a
- (1) worksheet. (2) label. (3) cell. (4) formula.

18. In Figure 3, if the formula in the cell D2 is =B\$2+C2 and it is copied into the cell D3, what would be the output?

	A	B	C	D	E
1					
2		5	6	11	
3		4	5		

Figure 3

- (1) 9 (2) 10
 (3) 11 (4) 12

19. Imagine that you are preparing a presentation about Sri Lanka. Which of the following could be included in your presentation using presentation software?
 A - A map of Sri Lanka
 B - An audio clip of the National Anthem
 C - A hyperlink directing users to www.gov.lk
 (1) A and B only (2) B and C only (3) All A, B and C (4) None of them
20. A database includes a table that contains data about students in a school. Data relating to one student in the table is a
 (1) field. (2) record. (3) form. (4) query.
21. Which of the following can be used as a primary key of a database table in storing data about students?
 (1) Date of birth (2) Surname
 (3) Class (4) Student admission number
22. Consider the following statements about relational databases:
 A - A relationship is an association between two or more databases.
 B - The types of relationships in a relational database include one-to-one, one-to-many and many-to-many.
 C - A relational database can consist of multiple tables.
 Which of the above is/are correct?
 (1) A only (2) C only (3) B and C only (4) All A, B and C

● Answer the questions No. 23 to 25 using the flowchart in Figure 4.

23. What are the outputs of the flowchart, if the current temperature is 28 °C, 27 °C, and 26 °C, respectively?
 (1) Cold, Cold, Cold
 (2) Hot, Cold, Cold
 (3) Hot, Hot, Cold
 (4) Hot, Hot, Hot
24. Which of the following control structures are required to convert the flowchart into a computer program?
 A - If-Then construct B - If-Then-Else construct
 C - For loop D - Do-While loop
 (1) A only (2) B only
 (3) A and C only (4) B and D only
25. Which of the following data types is suitable for the variables C and R in the above flowchart?
 (1) String (2) Real
 (3) Boolean (4) Currency

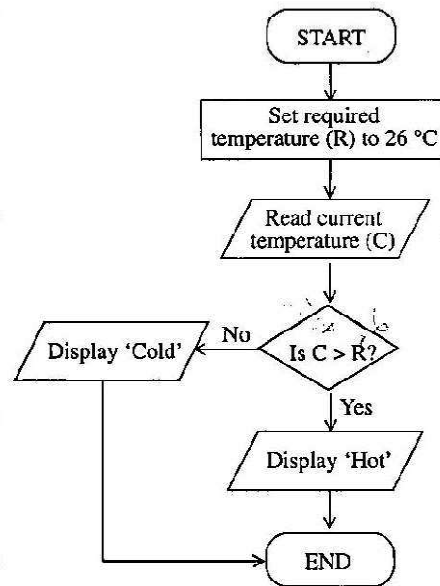


Figure 4

26. Which of the following statements is **incorrect** regarding a variable used in a computer program?
 (1) A variable has a name (identifier).
 (2) A variable refers to one or more memory locations.
 (3) A variable has a data type.
 (4) The value of a variable remains unchanged.
27. Which of the following represents the correct order of precedence of the arithmetic operators from left to right?
 (1) +, *, = (2) +, *, - (3) *, +, / (4) *, /, +

28. Consider the following pseudo code:

```
Begin
  Input numberOne 10
  Input numberTwo 5
  Result = numberOne / numberTwo
  Output Result 5
  Output numberTwo 5
  Output numberOne 10
End
```

Which of the following is a possible output of the above pseudo code?

- (1) 4, 12, 3 (2) 5, 2, 10 (3) 5, 10, 2 (4) 4, 8, 2
29. Which of the following is the correct sequence of activities from left to right in developing an information system using the System Development Life Cycle (SDLC)?
- (1) Feasibility Study → System Design → System Analysis → System Implementation
(2) System Analysis → System Implementation → System Design → Feasibility Study
(3) Feasibility Study → System Design → System Implementation → System Analysis
(4) Feasibility Study → System Analysis → System Design → System Implementation
30. Which of the following is **not** suitable for computerization?
- (1) Student admissions in a school
(2) School library
(3) Marking essay type answers in an examination
(4) Computing student averages and grades after marking of papers
31. Consider the following activities:
- A - Interviewing the teacher-in-charge of the library.
B - Studying a magazine article (document) that describes the history of the library and how it was established 20 years ago.
C - Observing how the library is being used by students.
- Which of the above can be used for gathering requirements in developing a library management system for a school?
- (1) A only (2) C only (3) A and C only (4) All A, B and C
32. Identify the most appropriate statement relating to the Internet and the World Wide Web (WWW).
- (1) The Internet is a service of the WWW.
(2) There is no relationship between the Internet and the WWW.
(3) The Internet and the WWW are the same.
(4) The WWW is a service of the Internet.
33. Which of the following is essential in establishing a session for chatting, video chatting and video conferencing?
- (1) A web cam (2) E-mail address
(3) Connection to the Internet (4) A domain name
34. Consider the following:
- A - Adding echo
B - Changing the speed of audio track
C - Editing video clips
- Which of the above effects are available in a specialized audio/sound editing tool used in multimedia applications?
- (1) A and B only (2) A and C only (3) B and C only (4) All A, B and C
35. Consider the following:
- A - web browser B - web server C - IP address D - website content
- Which of the above are essential in hosting a website?
- (1) A, B and C only (2) B, C and D only
(3) A, B and D only (4) All A, B, C and D

36. What is the correct HTML code for setting the background colour as yellow?
- (1) `<body background-'yellow'>` (2) `<background>yellow</background>`
(3) `<body background="yellow">` (4) `<body style="background-color:yellow">`
37. What is the correct HTML code for creating a hyperlink?
- (1) `DOEweb` (2) `<a>http://DOEweb.com`
(3) `DOEweb` (4) `DOEweb`
38. What is the effect of the `
` tag in HTML?
- (1) Inserts a line break. (2) Inserts a page break.
(3) Inserts a bracket. (4) Inserts a section break.
39. Consider the following statements regarding malware:
- A - Trojan Horses at first glance will appear to be useful software but will actually do damage once installed or run on the computer.
 - B - A worm can replicate itself over a network and has the capability to travel without any human action.
 - C - A computer virus attaches itself to a program or file enabling it to spread from one computer to another, leaving infections as it travels.
- Which of the above is/are correct?
- (1) A only (2) B only (3) A and B only (4) All A, B and C
40. Consider the following:
- A - A person using a commercial software without the license.
 - B - A person using another person's login details.
 - C - A business reveals information about customers to others without the consent from the customers.
 - D - A person creating viruses and spreading to others' computers.
- Which of the above can be considered as unethical?
- (1) A and B only (2) A, B and D only
(3) B, C and D only (4) All A, B, C and D

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