

GIT/2023, 2024(2025)/E-I,II

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இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka
இலங்கைப் பரීட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka

GIT E I, II

සාමාන්‍ය තොරතුරු තාක්ෂණ විභාගය, 2023, 2024(2025)
பொதுத் தகவல் தொழில்நுட்பப் பரீட்சை, 2023, 2024(2025)
General Information Technology Examination, 2023, 2024(2025)

සාමාන්‍ය තොරතුරු තාක්ෂණය I, II
பொதுத் தகவல் தொழில்நுட்பவியல் I, II
General Information Technology I, II

පැය තුනයි
மூன்று மணித்தியாலம்
Three hours

අමතර කියවීමේ කාලය මිනිත්තු 10 යි
மேலதிக வாசிப்பு நேரம் - 10 நிமிடங்கள்
Additional Reading Time - 10 minutes

Use additional reading time to go through the question paper, select the questions and decide on the questions that you give priority in answering.

General Information Technology I

Instructions:

- * Answer *all* the questions.
- * Write your *Index Number* in the space provided in the answer sheet.
- * Instructions are given on the back of the answer sheet. Follow them carefully.
- * In each of the questions 1 to 40, pick one of the alternatives from (1), (2), (3), (4) which is correct or most appropriate and mark your response on the answer sheet with a cross (X) in accordance with the instructions given at the back of the answer sheet.

1. Which of the following devices is an output device only of a computer?
(1) Keyboard (2) Printer (3) Mouse (4) Touchpad
2. Which of the following devices is used by the computer as a non - volatile storage device?
(1) CRT (2) CPU registers
(3) Hard disks (4) RAM
3. Which of the following is a software?
(1) RAM (2) Mouse
(3) Operating System (4) Network Administrator
4. What is the main function of the CPU of a computer?
(1) Store data (2) Display graphics
(3) Process instructions (4) Connect to the internet
5. What does the acronym HTML stands for?
(1) Hyper Text Markup Language
(2) Home Tool Markup Language
(3) Hyperlinks and Text Markup Language
(4) Hyper Tool Markup Language
6. Which of the following computer devices / components is used by a computer, to connect it to any computer network?
(1) Printer (2) Scanner
(3) Network Interface Card (NIC) (4) Keyboard
7. Which of the following is a programming language?
(1) Excel (2) HTML (3) Pascal (4) XML
8. What is the primary function of an operating system?
(1) To compile programs
(2) To manage computer hardware and software
(3) To run web browsers
(4) To manage networks

[See page nvo]

9. Which of the following is an operating system?
(1) Excel (2) MS Word (3) Linux (4) Google Chrome
10. Which of the following is a web browser?
(1) Excel (2) Python (3) Linux (4) Google Chrome
11. Which of the following file extensions is used to store audio files?
(1) txt (2) mp3 (3) docx (4) pdf
12. Which of the following languages is fundamental for web page construction?
(1) C++ (2) Java (3) HTML (4) Python
13. Which of the following software is used by a user to access websites?
(1) Word Processor (2) Spreadsheet
(3) Web Browser (4) DBMS
14. What is the main purpose of data encryption?
(1) To compress data (2) To speed up data transfer
(3) To protect data (4) To backup data
15. What is the primary purpose of an IP address?
(1) To identify a device on a computer network
(2) To connect to the Internet
(3) To send an email
(4) To run the applications
16. What are the acceptable symbols that can be used to start a formula in spreadsheets?
(1) # or @ (2) = or + (3) \$ or & (4) % or *
17. Which function in a Spreadsheet would find the highest value in a range of cells?
(1) SUM() (2) AVERAGE() (3) MAX() (4) MIN()
18. What is the best chart type in a Spreadsheet that can be used to show trends over time?
(1) Pie chart (2) Line chart (3) Bar chart (4) Scatter plot chart
19. Which of the following is a valid cell range reference in a Spreadsheet?
(1) A1-A10 (2) A1:A10 (3) A1;A10 (4) A1 A10
20. What does the term 'bandwidth' refer to with reference to networks?
(1) The amount of data that can be transmitted over a network in a time unit.
(2) The physical size of a network cable
(3) The frequency of a wireless signal
(4) The number of devices connected to a network
21. What is the main function of a firewall?
(1) To manage web servers
(2) To monitor incoming and outgoing traffic of a network
(3) To compress data
(4) To enhance email security
22. What is a primary key of a table in a database?
(1) A unique identifier for a record
(2) A unique label to identify a field of a record
(3) A key used to encrypt data
(4) A command to retrieve data

23. What is the domain name in the URL 'http://www.example.com/path'?
- (1) http (2) www (3) example (4) www.example.com
24. What does the term 'rendering' mean in the context of video editing?
- (1) Adding subtitles to a video
 (2) Adjusting the volume of a video
 (3) The process of exporting a video project into a final format
 (4) Cutting a video clip into smaller segments
25. Consider the following statements about data and information related to an examination marks of students in a school:
- A* – '75, 62, 88, 91' are raw marks of students in a test.
B – 'The average mark of the class is 79' is a summarized result.
C – 'The highest mark in the class is 91.'
D – 'The marks obtained by four students are 55, 75, 65, and 85.'
- Which of the following options indicate the correct classification of data and information described in the above statements?
- (1) *A* and *D* are data; *B* and *C* are information.
 (2) *A* and *B* are data; *C* and *D* are information.
 (3) *B* and *C* are data; *A* and *D* are information.
 (4) *C* and *D* are data; *A* and *B* are information.
26. What does the term 'cut' refers to in video editing?
- (1) Increasing the volume of an audio track
 (2) Adding a filter to a video clip
 (3) Splitting a video clip into two parts
 (4) Adjusting the brightness of a video
27. In Microsoft PowerPoint, what is a 'slide master'?
- (1) A feature used to create animations
 (2) A tool used to set up the overall design and layout for slides
 (3) A library of Clipart
 (4) A feature used to manage transitions
28. What is 'Speaker Notes' in a Presentation software?
- (1) Notes that are visible to the audience
 (2) A tool for creating slide titles
 (3) Notes visible only to the presenter during the presentation
 (4) A feature for adding audio clips
29. What is the purpose of the 'Slide Show' in Presentation software?
- (1) To edit slide content
 (2) To view and present slides as it will appear during the actual presentation
 (3) To print slides
 (4) To apply design themes
30. *X*, *Y* and *Z* are three Boolean variables in the expression $X \cdot Y + (\text{NOT}) Z$. Consider the following value assignments for the variables *X*, *Y* and *Z*.
- A* – (*X*=0, *Y*=0, *Z*=1)
B – (*X*=1, *Y*=1, *Z*=1)
C – (*X*=0, *Y*=1, *Z*=0)
D – (*X*=1, *Y*=0, *Z*=0)
- Which of the above value assignments would give the value 0 for the expression?
- (1) *A* only (2) *B* only (3) *C* only (4) *D* only

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31. There are 4 traffic lights on a road one after the other. 'Stopping' or 'not stopping' at a traffic light is represented by the digit 0 and 1 respectively. The total waiting time(in seconds) of a particular vehicle that passes through these four traffic lights starting from the first traffic light is represented by the binary number 1011.
What is the **total time** that this vehicle spent at the four traffic lights?
(1) 7 seconds (2) 11 seconds (3) 13 seconds (4) 15 seconds
32. Which of the following statements is correct about the ASCII and Unicode encoding systems?
(1) ASCII is a subset of Unicode.
(2) Unicode and ASCII are completely different encoding systems.
(3) ASCII supports more characters than Unicode, making it more versatile for modern applications.
(4) Unicode uses the same number of bits as ASCII to represent a character.
33. Which of the following is a hexadecimal number **only**?
(1) 1010 (2) 256 (3) 1A3F (4) 10012
34. What is the largest decimal value that can be represented by a single byte?
(1) 128 (2) 255 (3) 256 (4) 512
35. When the formula $=6/2-2*4/2$ is entered into a cell in a spreadsheet which of the following value is displayed in that cell?
(1) 1 (2) -1 (3) 2 (4) -2
36. A teacher wanted to create question paper that no one could modify without using special software. Which of the following file formats should be used to store the question paper?
(1) DOC (2) HTML (3) PDF (4) ODT
37. Consider the following statements about HTML documents
A - <h1> tag is used to create hyper links
B - <style> tag is used to create internal style sheet
C - tag is used to create an ordered list
D - <input type="checkbox"> is used to create a check box
Which of the above statements are true?
(1) A and B only (2) A and D only (3) B and C only (4) C and D only
38. In the ASCII code, the English alphabet character "E" is represented by the decimal number 69. Which of the following binary value represents the English character "A" in the ASCII code?
(1) 1000000 (2) 1000001 (3) 1000011 (4) 1000111
39. Consider the following features of computers.
A - Type, brand and speed of the processor
B - Capacity, type and speed of the RAM
C - Type, capacity and speed of the hard disk
D - Battery life
Which of the above features should be considered when buying a typical desktop computer?
(1) A and B only (2) B and C only (3) C and D only (4) A, B and C only
40. What is the primary purpose of using the Bcc (Blind carbon copy) field in an email?
(1) To send a copy of the email to yourself
(2) To send a copy of the email without revealing the recipients' address to others
(3) To send a copy of the email with high priority
(4) To save a draft of the email

* *

[See page five]

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GIT E I, II

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பொதுத் தகவல் தொழில்நுட்பவியல் I, II
General Information Technology I, II

General Information Technology II

* Answer *four* questions only.

1. (a) Write down the essential computer operations required to perform the following tasks. Assume that the hard disk drive C is formatted and empty of data and folders. Further, the computer is switched on and you see the desktop on the computer display.

- Creating a folder with the name **GIT** on the C drive of a given personal computer.
- Creating 3 sub-folders inside the **GIT** folder with the names **examples**, **docs** and **solutions**.
- Creating a word document containing your index number and name using a word processing software, and to save the document with the file name **mydata.doc** in the **examples** folder you have created in part (ii) above.
- Copying the word document **mydata.doc** you have created in the part (iii) above, to the folder **docs** and rename it as **myself.doc**.

• (b) Explain what will happen if you format your drive C now.

✓ 2. Assume that your ICT teacher has asked you to create a spreadsheet to analyze the marks obtained by the students of the class at an examination. The teacher has given you the following information about her requirements. Each student has sat only 3 papers namely ICT, Statistics, and Logic at the examination. The class has only 5 students.

- The spreadsheet should contain the index number of the student, name of papers, marks of papers ICT, Statistics, and Logic of each student separately.
- The total marks scored by each student for all three papers and his/her average mark should be displayed for each student in the next two columns after the marks obtained for the papers.
- The students' data should be displayed in ascending order on the total marks of students.
- The maximum mark and the minimum mark that students obtained for each paper should be displayed after the last students data in the spreadsheet.
- A line chart should be included in the spreadsheet to show the index numbers and their total marks.

Based on the above requirements answer the following questions:

- Draw a rough layout of the spreadsheet giving the column names.
- Give the formulas to be included in the spreadsheet to compute the above (b) and (d) parts.
- Write down the procedures needed to be followed for above part (c) and (e).

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3. You are asked by your school teacher to use a word processing software to prepare an invitation letter to invite parents of students to the sports meet of the school. The teacher has given you the following layout.

20.03.2025

Invitation to the Annual School Sports Meet

Dear Parents,

We are delighted to invite you to our Annual School Sports Meet, which will be held on **02/06/2025** at the school playground from **8.00 am to 4.00 pm**.

We would be honored to have you as our guest for this special occasion. Your support and encouragement mean a lot to our students and the entire school community.

You can reach us through our email school@abc.com for any further information or to confirm your participation.

We look forward to welcoming you to our Annual School Sports Meet.

Warm regards,

The principal

ABC school

- (i) Explain what features of a word processing application should be used to create the above layout of the invitation letter and where these features have to be used.
- (ii) If you are also given the list of names and addresses of the parents, what feature of the word processing software can be used to generate invitation letters to the individual parents automatically by replacing the 'Dear Parents' of the letter by the name and address of the individual parent? Explain how would you do that?
- You should give the required changes to the invitation letter by copying the layout above into your answer sheet showing the field names required for this and where they should be placed in the invitation letter.
4. As the principal of 'Green Valley High School,' I need a reliable and efficient way to manage the school's data, including student information, class enrollments, and teacher assignments. Currently, our data management is mostly manual, leading to inefficiencies, errors, and difficulty in retrieving information quickly. I believe that a computerized database system can address these issues. I need a report of how such a database system can be developed and implemented, highlighting its advantages, disadvantages and the processes involved.
- Your report should include the following information also.
- (a) Explain what a database is.
- (b) Describe why the school needs a database application.
- (c) Suggest possible tables and fields.
- (d) Suggest primary keys and foreign keys of the tables suggested.

[See page seven

5. Chamath is studying Information Technology at a leading university. He is required to do an undergraduate project using a software tool that provides a free license for the students. After completing the registration process at the official website, he is automatically redirected to a mirror site to download the software since the main server is overloaded. However, before the mirror site is loaded, his browser issues a warning to alert him that the site uses a self-signed digital certificate rather than a trusted digital certificate.

- (i) What is a digital certificate?
- (ii) Write down **two** advantages and **two** disadvantages of using a self-signed digital certificate.
- (iii) Chamath decides to visit the website and download the required tool despite the warning. Do you agree with him? Justify your answer.

6. The following diagram shows a browser display of a web page.

Animals

Dog

Dogs are domesticated mammals, not natural wild animals. They were originally bred from wolves. They have been bred by humans for a long time, and were the first animals ever to be domesticated.

- Family: Canidae
- Lifespan: 10-13 years
- Diet: Omnivore

Cat

Cats are small, carnivorous mammals that are often kept as pets. They are known for their independence, agility, and playful behavior. Domestic cats are highly valued by humans for their companionship and their ability to hunt vermin.

- Family: Felidae
- Lifespan: 12-15 years
- Diet: Carnivore

Elephant

Elephants are large mammals of the family Elephantidae and the order Proboscidea. They are known for their large ears, tusks made of ivory, and their trunks, which are actually a fusion of their nose and upper lip.

- Family: Elephantidae
- Lifespan: 60-70 years
- Diet: Herbivore

Figure : web page

Write the required HTML code to display the information on the web browser display. State clearly your assumptions, if any.

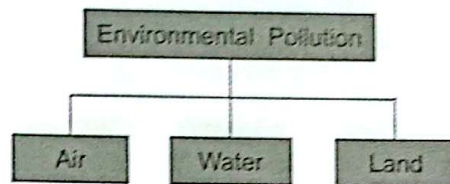
[See page eight

7. Your teacher requests you to prepare a presentation for the Science Competition-2025 under the title of 'Environmental Pollution' using a presentation software. Teacher has given the following guidelines for the preparation of the presentation.

Slide 1: It should contain the title and the presenter's details. 'The Environmental Pollution' is the title of the presentation and 'Mr. A. Kumar, ABC School, Matara' is the presenter's details.

Slide 2: It should give an introduction to environmental pollution.

Slide 3: It should display the major types of environmental pollution as follows:



Slides 4-6: Describe each type of environmental pollution with an image located on the right side and the caption located on the left side of the slide.

Slide 7: A graph projecting the historical growth of environmental pollution.

Further, the teacher advises you to use the most appropriate slide layouts and subtitles for each slide and to add the applicable animations and transitions for the presentation to attract the audience.

Answer the following questions:

- List any three characteristics of an effective presentation.
- Write the most appropriate slide layout you can choose for each slide.
- Write down the steps you need to follow to select a slide layout.
- Write down the steps to visualize slide 3.
- Write down the steps to insert images into the slides from 4 to 6.
- Write down two differences between animation and transition.
