

Unit 01 – Concept Of ICT MCQ Questions

1. Answer sheet of a multiple-choice questions paper can be read with

- (1) Digitizer. (2) Light Pen. (3) MICR.
(4) Scanner. (5) POS terminal. (2011)

2. Computerized medical imaging systems which use echoes of transmitted pulses are called.

- (1) CAT scans. (2) CT scans. (3) PETT scans.
(4) Ultrasound scans. (5) X – ray images. (2011)

3. A manager of an engineering manufacturing company is considering whether to recruit more people in the near future. What is the most relevant information in this case he has to consider?

- (1) Personnel records of all the employees.
(2) Previous reports of all the recruited people.
(3) The attendance sheets of all the employees.
(4) Detailed reports of engineering specifications and manufacturing orders.
(5) Summary reports of present and projected personnel requirements. (2011)

4. Consider the following statements about data and information.

- A - The symbols '101011101'
B - Numbers, characters, and images
C - Facts derived from a study.
D - Facts that have been processed in such a way as to be meaningful to the person who receives it.

Which of the above statements best describe/s 'information'?

- (1) D only. (2) A and B only. (3) C and D only.
(4) A, B and C only. (5) B, C and D only. (2012)

5. The required minimum and maximum working hours per day for an employee in a factory are 5 and 12 respectively. Which of the following is the most appropriate validation check to ensure that the integer value entered as the working hours, through a web – based form, is correct?

- (1) Range (2) Length (3) Type
(4) Numeric Value (5) Number of digits (2012)

6. Consider the following terms:

- A - Input B - Output C - Process D - Storage

Which of the above are **essential** for a system?

- (1) A and B only. (2) A, B and C only. (3) A, C and D only.
(4) B, C and D only. (5) All A, B, C and D (2012)



7. Which of the following statements is true with regard to data and information?

- (1) Decision can be made only when a massive volume of data is available.
- (2) Validity of information depends on the accuracy of data.
- (3) Information obtained by processing data is always accurate.
- (4) In order to obtain information, data must be collected from multiple sources.
- (5) The accuracy of information depends only on the accuracy of input data.

(2013)

08. Consider the following techniques:

A - Computer Aided Learning (CAL)

B - Computer Based Learning (CBL)

C - Computer Based Assessment (CBA)

Which of the above techniques is/ are used in ICT based Teaching and Learning?

- (1) A only.
- (2) B only.
- (3) A and B only.
- (4) B and C only.
- (5) All A, B and C

(2013)

09. A special digit inserted into a sequence of digits for data validation id called the digit. Which of the following is most appropriate to fill the blank in the above statement?

- (1) check
- (2) sign
- (3) least significant
- (4) most significant
- (5) error

(2014)

10. The Sri Lankan cricket team won the T-20 World Cup – 2014 tournament. The Sri Lankan cricket fans had the highest value of this information when

- (1) the final match started.
- (2) Thisara Perera scored the winning run.
- (3) the captain Lasith Malinga received the trophy.
- (4) they saw the news on the newspapers.
- (5) they saw the cricket team at the Katunayake Airport.

(2014)

11. Facebook is a popular social network connecting millions of people with new members joining daily. Which of the following statements is correct?

- (1) Facebook plays a very important role in building and maintaining your family relationships.
- (2) Facebook is the only social network available today.
- (3) Privacy settings of Facebook assure the privacy of its user completely.
- (4) Publishing private information in Facebook has resulted in unfortunate incidents.
- (5) Real identity of a person is always guaranteed in Facebook.

(2014)



12. Which of the following statements is true?

- (1) Computer based learning is a teacher-oriented learning technique.
- (2) Skype is a famous video conferencing technique.
- (3) Virtual Private Network (VPN) provides a medium for telecommuting.
- (4) Conducting offline examinations can be considered as computer aided assessments.
- (5) Microsoft Power Point is Free and Open-Source Software (FOSS) for computer-based presentations.

(2014)

13. Consider the following statements about social networking sites:

A - They are being used increasingly as a medium for election campaigns.

B - A user's true identity is always guaranteed in a social networking site.

C - They are absolutely necessary to maintain human relationships in the modern society.

Which of the above statement(s) is /are correct?

- (1) A only.
- (2) B only.
- (3) C only.

(4) A and B only.

(5) A and C only.

(2015)

14. Consider the following terms related to computer systems:

A - Malware

B - Hardware

C - Software

D - Liveware

Which of the above are basic components of a computer system?

(1) A and B only.

(2) A and C only.

(3) A and D only.

(4) B and C only.

(5) B, C and D only.

(2015)

15. ABC Holdings is a manufacturing organization in Sri Lanka which has its head office in Japan. What is the most convenient method to conduct weekly progress review meeting between the local staff in Sri Lanka and the senior management team in Japan?

(1) Telephone calls

(2) Skype

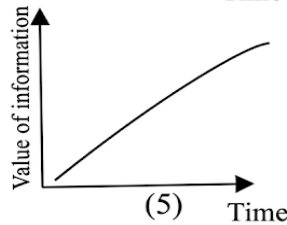
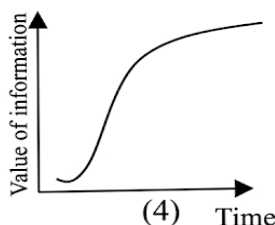
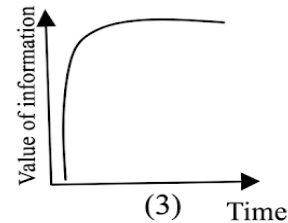
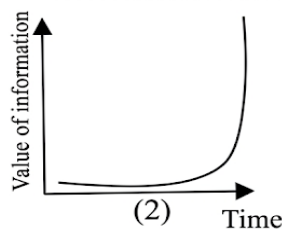
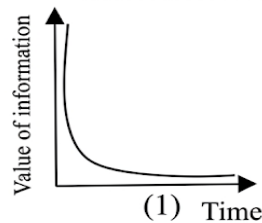
(3) E - mail

(4) SMS

(5) YouTube

(2015)

16. Which of the following graphs illustrates the Golden rule of information?



(2015)



17. Consider the following statements:

A - Plagiarism is a common threat to information systems.

B - Plagiarism means claiming someone else's creation as one's own.

C - Piracy is a synonym for plagiarism.

Which of the above statements is/ are correct?

- (1) A only (2) B only (3) C only
(4) A and B only (5) B and C only (2016)

18. "Employee of modern organizations perform their duties from home." Which of the followings best describes the above statement?

- (1) Social networking (2) Telecommuting (3) Instant messaging
(4) Office automation (5) Blogging (2016)

19. Which of the following statements is correct with respect to a scanner?

- (1) A scanner is a software which scans a printed document and converts them into digital images.
(2) A scanner is an output device of a computer.
(3) The optical character reader (OCR) software is an essential component of a scanner.
(4) A scanner is an input device of a computer.
(5) Scanners are used to store moving pictures in digital form. (2016)

20. Which of the following is usually used to boot – up personal computers?

- (1) Firmware
(2) Malware
(3) Adware
(4) Ransomware
(5) Liveware (2017)

21. Students in a school are given table computers to improve their studies. Which of the followings is the most appropriate activity to achieve this objective?

- (1) Downloading computerized study material
(2) Watching entertainment videos
(3) Instant messaging among friends
(4) Blog writing
(5) Playing computer games (2017)

22. Consider the space voyage for landing a human being on the surface of the moon for the first time in 1969. The entire event was broadcast on the radio in Sri Lanka by several commentators based in Sri Lanka and the USA.

Which of the following events relates to the highest value of information?



- (1) counting down for the launching of the rocket that carried the space shuttle.
- (2) the moment the space shuttle escaped from the gravitational field of the earth.
- (3) the moment the space shuttle entered the moon's gravitational field.
- (4) the moment the astronaut Neil Armstrong placed his first step on the surface of the moon.
- (5) The moment the astronauts landed on the sea in their return voyage to earth (2018)

23. Consider the following statements.

- A - Providing the personal information of customers stored in a computer by a vehicle servicing center to an insurance agent is, an issue related to the privacy of customers.
- B - Providing a copy of a single user licensed software to another party is a piracy issue related to the copyright owner of the software.
- C - Unauthorized access to another person's computer is both illegal and unethical.

Which of the above statements is / are valid?

- (1) A only
- (2) B only.
- (3) A and B only
- (4) B and C only
- (5) All A, B and C (2018)

24. Consider the following statements.

- A - BIOS is an example for application software.
- B - A utility software is an example for firmware.
- C - Spyware is an example for malware.

Which of the above is / are correct?

- (1) A only.
- (2) B only.
- (3) C only.
- (4) B and C only.
- (5) All A, B and C (2018)

25. Which of the following statements correctly describe / describes *hackers*?

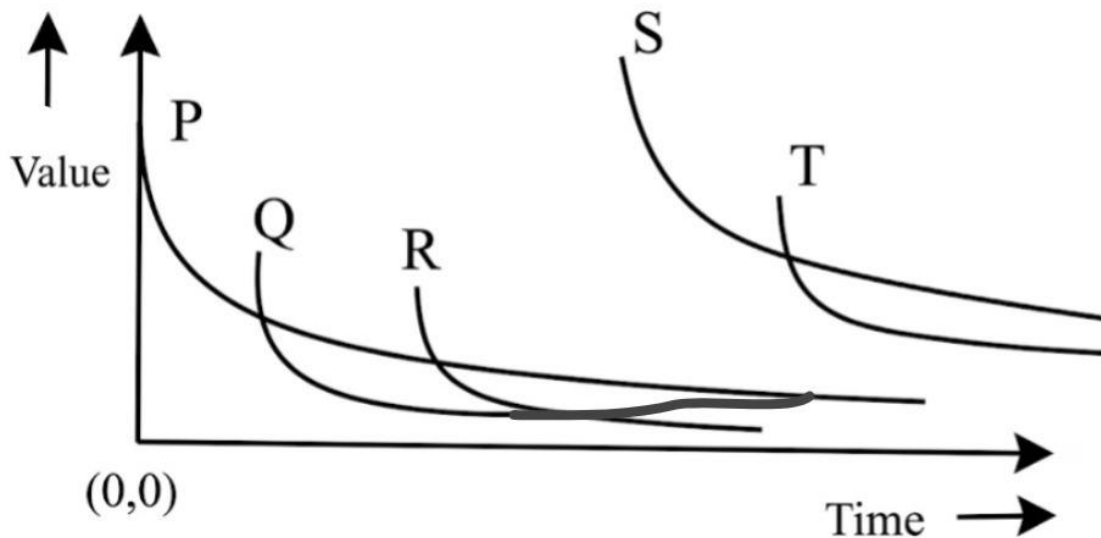
- A - They are bored and lonely anti – social teenagers who attack computer systems as a challenge and sometimes for profit.
- B - They are IT skilled people who attack computer systems of individuals and businesses as a form of competition.
- C - They are organized crime groups that deploy highly automated and sometimes highly targeted attacks against computer systems of individuals and businesses for certain benefits.



- (1) A only
- (2) B only
- (3) A and C only
- (4) B and C only
- (5) All A, B and C

(2019)

26. The diagram shows the variation of value of information with for five events of a single mission in the chronological order. Information about the entire mission especially about the occurrences of each event is made available on- line real time.



Consider the following statements related to the above mission:

- A - Only the events P, Q and R comply with the Golden Rule of Information.
- B - Event S has the highest demand and needs to be facilitated with the highest technical resources.
- C - The Value of an event can be determined reasonably using the demand for the information about the particular event.

Which of the above statements related to this mission is / are valid?

- (1) A only.
- (2) C only.
- (3) A and B only.
- (4) B and C only.
- (5) All A, B and C.

(2019)

27. Which of the following pairs contains types of software that are **different** with respect to ownership / licensing?

- (1) Application software and open – source software
- (2) Applications software and utility software



- (3) Proprietary software and open – source software
 (4) Proprietary software and systems software
 (5) Systems software and utility software (2021)

28. Which of the following statements are correct?

- A - Word processors and spreadsheet software belong to the category of *utility software*.
 B - A *compiler* is an example for a program translator.
 C - It is illegal to use a proprietary software without obtaining its license.

- (1) A only
 (2) B only
 (3) C Only
 (4) A and B only
 (5) B and C only (2023)

29. Personal information of students and their exam marks are input to a Student Information System. Marks for a subject range from 0 to 100. A student has to study a collection of compulsory and optional subjects and sit for the relevant examinations.

Which of the following are suitable data validations for the above system?

- A - A *presence check* for the marks of all subjects taken/not taken by the student.
 B - A *range check* to check whether an input exam mark is within the range 0 and 100.
 C - A *data type check* to ensure that the input made for the telephone number of the student contains only digits.

- (1) A only
 (2) B only
 (3) A and B only
 (4) A and C only
 (5) B and C only (2023)

Structured Essay Questions

01.

- (a) Classify the following software as either "system software" or "application software".

Software	Classification
Linux	
Word Processor	
Web Browser	

- (b) Computer storage devices can be categorized into three types on the medium used to store/retrieve data. State the **three types** of media and give an example for each type.



(c) The transaction file in a company's payroll system includes employee number, hours worked, department code and week number. Assume that the system maintains a Employee master table and a Department master table. Encircle the most appropriate validation check for each of the data elements given in the following table.

DATA ELEMENT	VALIDATION CHECK
EMPLOYEE NUMBER	PRESENCE IN EMPLOYEE MASTER TABLE / NUMERIC VALUE
HOURS WORKED	PRESENCE IN EMPLOYEE MASTER TABLE / RANGE CHECK
DEPARTMENT CODE	PRESENCE IN DEPARTMENT MASTER TABLE / RANGE CHECK
WEEK NUMBER	LENGTH / RANGE CHECK

(d) Describe the terms "Video conferencing" and "Copyright". (2011)

02.

(a) What do you mean by the term's "privacy" and "software piracy"?

(b) Describe the term "mobile computing".

(c) Consider the following scenario:

A semiconductor manufacturing company has branches in Japan and USA. At present, representatives of the development team should visit other branches of the company frequently to discuss their technical issues. Over the years, the company has realized this mechanism is costly and time consuming.

(i) As an ICT student, suggest an **ICT based method** to conduct these technical review meetings without visiting the other branches.

(ii) Name **three** essential ICT devices required for the method suggested in (i) above. (2012)

03. State **two** service models in cloud computing. (2020)

04.

(a) Cloud Computing allows us to obtain computing resources and capabilities as a service. The three main types of cloud computing services are: *Infrastructure as a Service (IaaS)*, *Platform as a Service (PaaS)*, and *Software as a Service (SaaS)*.

From those three cloud computing service types, write down the suitable service type for each of the following scenarios.

(i) To obtain an environment for application deployment and execution from a cloud service provider

(ii) To obtain hard disk space for data storage from a cloud service provider

(iii) To obtain data file sharing, office applications and email services from a cloud service provider

(b) Fill in the blanks in the following statements with suitable words from the given list of words



- (i) helps to ensure the confidentiality of our data and information.
- (ii) is the attempt to acquire sensitive information by pretending as a trustworthy entity in an electronic communication.
- (iii) The illegal copying, distribution, or use of software is known as and helps us to protect our software from such illegal use.

List of words: {Encryption, Copyright, Phishing, Plagiarism, Software piracy} (2021)

05. Write the most appropriate word or phrase to answer the following questions based on the description given below.

Recently introduced National Fuel Pass system in Sri Lanka is an example of how ICT can be used to overcome national challenges successfully. It is observed that for a given week, the maximum server hardware resource utilization happens only for a short period (e.g. few hours) and the rest of the time the system operates at a very low resource demand.

- (a) One of the views on resource provision is to purchase computer hardware permanently considering the maximum demand. What is the main disadvantage with this approach?
- (b) What is the alternative solution to overcome the disadvantage mentioned in (a) above, while satisfying the maximum resource demand instances? (2022)

06.

- (a) A simple and high-level view of the data lifecycle consists of three steps. Write the 2nd and the 3rd steps of the data life cycle.
- 1st step is the creation of data.
 - 2nd step is
 - 3rd step is
- (b) Modern Artificial Intelligence relies on large amounts of data, which are often managed with cloud-based storage solutions. What is the cloud computing service model used here?
- (c) Your friend thinks the digital divide is a tool used for arithmetic division. Briefly explain to your friend what the digital divide is.
- (d) E-waste is becoming a major environmental problem in Sri Lanka. Suggest a step that we can take to reduce the environmental impact of our e-waste. (2023)

Essay Questions

- (a) Describe the main difference between data and information by using a suitable system.
- (b) Give **three** drawbacks of manual methods in manipulating data in bulk.
- (c) Describe the terms hardware, software and firmware using examples. (2012)

