

Answers

1. C
2. C
3. A
4. A
5. B
6. D
7. B
8. C
9. A
10. D
11. C
12. B
13. B
14. D
15. B
16. B
17. D
18. C
19. A
20. D
21. Communication systems

a.

1	Briefly mentions 1 of the given issues
2	Clearly discusses 1 of the given issues
3	Briefly mentions all given issues
4	Clearly discusses 2 of the given issues / briefly discuss all issues but only discuss 1 issue clearly
5	Clearly discusses 2 the given issues and mentions the other briefly
6	Clearly discusses all given issues

Copyright - detailed discussion concerned with art theft, tracing, referencing or creative commons

Privacy - people who are subjects of artworks (e.g. Models of photography), the personal information that the artists provide when registering for an account

Access -

b. Data types include image, animation, video, text, hyperlinks, numbers

1	Identifies 2 types of data
2	Identifies 2 types of data and states 1 feature about 1
3	Identifies 2 types of data and states 1 feature about both
4	Identifies 1 types of data and clearly state 2 features about both

Image – images can be bitmap or vector and stored as compressed files that can be downloaded for a larger size.

Animation – can be animated GIF or Flash files. Flash files need a flash player to be viewed. Flash files can have sound but GIF cannot.

Video – videos can be uploaded onto the site and viewed with a flash player

Text – Text can be entered in the form of comments or messages

Hyperlinks – used to link to another website / page in a non-sequential manner

Numbers – can be used to represent integers + numbers, currency, date/time, Boolean

c.

1	States that direct users become participants
2	States and explains that direct users become participants

Direct users become participants because they provide data / information to the system

22. Project management

a. Methods of conversion include - pilot, direct, parallel, phased

1	2 methods of conversion are named
2	2 methods of conversion are named and described
3	2 methods of conversion are named, described and compared

Pilot – the new system is installed for a small number of users who learn, use and evaluate the new system; the system is then implemented and used by all

Direct – the old system is dropped and the new system is implemented completely at a single point in time

Parallel – the new system and the old system are both operated for a period of time; the allows major faults with the new system to be found + repaired as well as ongoing training

Phased – the old system is converted into the new system using a gradual introduction of the new while the old is progressively discarded

b. Training methods include - traditional group training sessions, peer training, online training, operation manuals

1	2 training methods are stated
2	2 training methods are stated and described
3	2 training methods are stated, described and compared

Traditional group training sessions – training the participants in groups

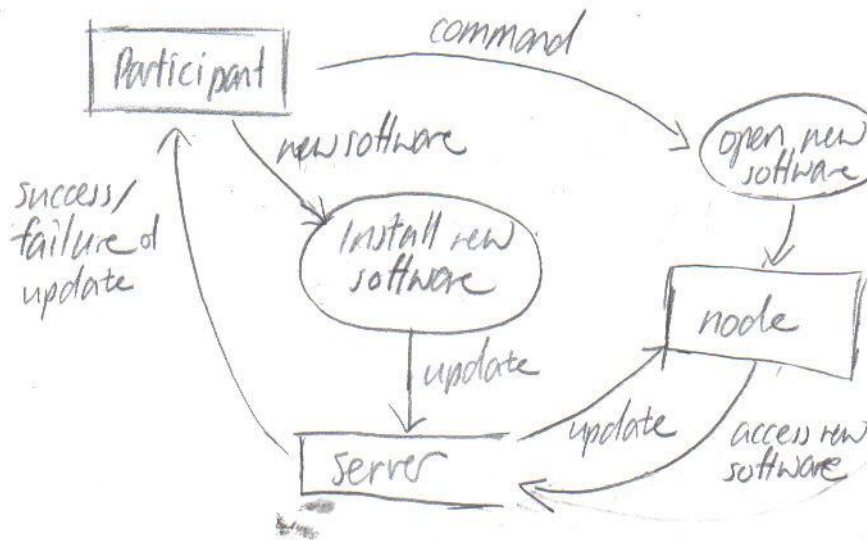
Peer training – training a group of the participants who then train the other participants

Online training – tutorials + help systems

Operation manuals – made for the participants detailing the methods to perform the processing of data in the system

c. Needs to include external entities (source + sink), processes, data transmitted, arrows and correct symbols

1	Has 1 of the features correct
2	Has 2 of the features correct
3	Has 3 of the features correct
4	Has 4 of the features correct
5	Has all of the features correct but in a disordered manner
6	Has external entities (source + sink), processes, arrows, data transmitted



23. Information processes

a. 7 Information processes

1	States all 7 processes +describes 1
2	States all 7 processes +describes 2
3	States all 7 processes +describes 3
4	States all 7 processes +describes 4
5	States all 7 processes +describes 5
6	States all 7 processes +describes 6
7	States all 7 processes +describes all 7

Collecting – new comic pages are given from artist to editor

Organising – each chapter of each comic is sorted

Analysing – editor in chief looks over the new manuscripts

Storing + retrieving – manuscripts are scanned and stored in the company's computers, original manuscripts given back to the artists

Processing – after scanning, adjust resolutions and levels / contrast

Transmitting + receiving – send to printer

Displaying – printed in magazine

b. Social and ethical issues are - security of data, data integrity, data quality, control and its implications for participants

1	Names 2 social + ethical issues
2	Names 2 social + ethical issues and describes 1
3	Names 2 social + ethical issues and describes 2

Data security – passwords, backup copies, physical barriers, anti-virus software, firewalls, data encryption

Data integrity – data verification, data validation

Data quality – resolution, bit depth

Access + control – who can access the data (editors / editor in chief),

c. Bitmap / vector

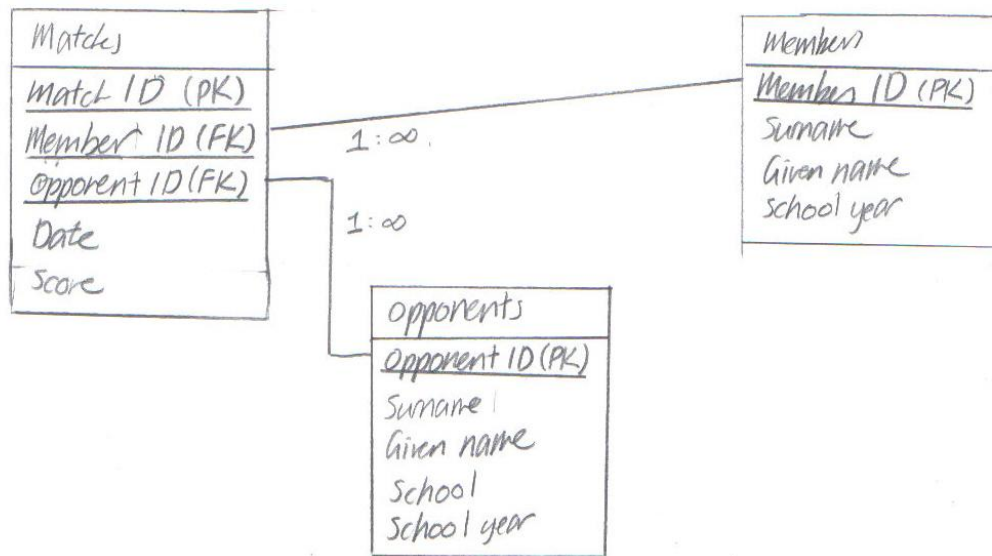
1	States that bitmap is better
2	States and explains that bitmap is better

Bitmap – when scanned it is automatically bitmap. To turn it into a vector it would have to be traced. The images would have a lot of small pen details that vector tracing cannot have.

24. Information systems and databases

a. A schema

1	Has tables + joins with labels that can be adjusted
2	Has 2 of the features with correct labels
3	Has 3 of the features with correct labels
4	Has 4 of the features with correct labels
5	Has tables, joins , primary keys , foreign keys + relationships with correct labels



b. Hardware for storage - RAID, magnetic storage, offline storage

1	Names 2 storage hardware
2	Names 2 storage hardware, describes 1
3	Names 2 storage hardware, describes both
4	Names 2 storage hard ware, describes both and recommends 1 with reason

RAID – uses stripping and mirroring. Stripping is when data is split into chunks and stored equally across a number of HDDs. Mirroring involves writing the same data to more than one HDD at the same time.

Magnetic storage – currently the most popular method of storage of large quantities of data. It has a large storage capacity and allows for direct access at high speed for both storing + retrieving processes.

Offline storage - data is stored such that it cannot be accessed until the storage media is mounted onto a drive. E.g. DVD, magnetic tape

c. A form

1	A form that is still lacking
2	A could be function form with slight mistakes
3	A fully functional form with titles, buttons, menus and navigation

Matches

Member: ▾

Opponent: ▾

Date:

Score:

25. Multimedia

a. (i)

1	Gives 1 difference between CRT and LCD monitors
2	Gives 2 differences between CRT and LCD monitors

Contrast between CRT and LCD monitors are:

- LCD has less radiation (i.e. Less strain on eyes)
- LCD is more environmentally friendly
- LCD cannot be adjusted resolution but a CRT can
- LCD can have dead cells
- LCD is digital display while CRT is analogue display
- LCD doesn't produce a flicker light like CRT

(ii)

26. Transaction processing systems

a.

1	Gives 1 data integrity issue relating to Transaction Processing Systems
2	Gives 2 data integrity issues relating to Transaction Processing Systems
3	Gives 3 data integrity issues relating to Transaction Processing Systems
4	Gives and briefly describes 3 data integrity issues relating to Transaction Processing Systems

- Data validation
- Data verification
- Referential integrity
- ACID properties
- Minimising data redundancy

b. (i)

1	Names an emerging trend used in transaction processing systems
2	Names <i>and</i> describes an emerging trend used in transaction processing systems

Trends are:

- Data warehousing and data mining – detailed data analysis performed by software on data warehouses (large separate combined copies of different organisations used by databases.)
- Online Analytical Processing (OLAP) and Online Transaction Processing (OLTP) – initiated by online user, must be completed within a reasonable span of time

(ii)

1	Defines batch transaction processing system
2	Simplistic description of how it is used
3	Substantial description and explanation of how it is used
4	All of the above, plus examples

A batch transaction processing system is:

- A method of transaction processing that is usually used in parallel with other processes. It separates data collection from the other transaction processing operations so that transactions can happen at convenient times such as at night and when the computers aren't used for other processes, or until a batch of a certain number (e.g. 100) is collected and are then processed altogether without other interactions from users. ACID properties have to be observed. Employees initiate batch processes rather than customers. Details of problems that caused rollback are recorded into an error file or log.
- Common examples are cheque clearance, clearance of schedules, bulk generation of bills and payments, and payroll processing