

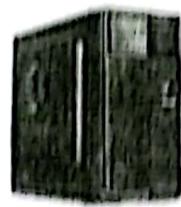
PA

**JINJA JOINT EXAMINATIONS BOARD
MOCK EXAMINATIONS 2024
BHSU/I SUBJECT
DRAFT MARKING GUIDE 2024**

1. a) Define a computer system (1Mark)

A computer system is a collection of interrelated computer components working together to input, output, process, and store data and information.

b) Name any two devices from fig 1 provided below and clearly state the function of each. (4Marks)



- i. Keyboard inputs text data into the computer
 - ii. Monitor: displays electronic information.
 - iii. Printer: converts softcopy to hardcopy
 - iv. Mouse: inputs spatial data pointing, clicking
 - v. System Unit: Houses the internal components of a computer
 - vi. Headsets: outputs audio/sound from the computer
- Any 2 X 2marks each

2. Describe three advantages and two disadvantages of computer networks to an institution.

a. Advantages (3Marks)

- i. Networks provide a very rapid method for sharing and transferring files within the institution
- ii. Enable central management of resources
- iii. Cost saving- e.g., Networkable versions of many popular software programs are available at considerable savings when compared to buying individually licensed copies
- iv. Easier backup especially in centralized databases

- v. Sharing resources such as laser printers, fax machines, modems, scanners, etc. is simplified increased productivity
- vi. Improved collaboration improved communication
Any 3 x 1mark each Enhanced data security

(2Marks)

b. Disadvantages

- i. Expensive to Install
- ii. Requires Administrative Time
- iii. Security Issues - Dependency on internet
- iv. Computer Networks can fail - Data security
- v. Rapid Spread of Computer Viruses

Any 2 x 1mark each

3. What is meant by the following terms as used in computer software**a. Bespoke**

(1Mark)

A tailor-made software, which is developed at a user's request to perform specific functions.

b. Freeware

(1Mark)

Freeware is copyrighted software provided at no cost by an individual or a company that retains all rights to the software

c. Shareware

(1Mark)

Shareware is copyrighted software that is distributed at no cost for a trial period.

d. Open source

(1Mark)

Open-source software is software provided for use, modification, and redistribution at no cost.

e. Copyrighted software

(1Mark)

Copyrighted software refers to computer programs with restrictions regarding use, modification, and redistribution

4. a) Apart from using hardware (Physical Printer), how else can one print a document?

Depending on your computer, you might have the option to

i. send documents as faxes, or Virtual printing

ii. to save them as PDF or XPS files when you print. Cloud storage

Any 2 x 1mark each

b) List the steps you would follow to print an open word document (3Marks)

- i. Press CTRL+P>Select file then select print
- ii. Select the printer name i.e. HP Deskjet F4200 series. And change the necessary preferences such as A4 paper size for by clicking on the preferences button.
- iii. Click Print button when done

Any 2 x 1mark each; Awards 3 marks if the steps result into printing

5. Analyze the importance of any five components found on the motherboard (5Marks)

- i. **CPU Socket:**
 - Holds the CPU (Central Processing Unit) in place.
- ii. *** Chipset:**
 - Manages the flow of data between components.
- iii. **Memory Slots (RAM):**
 - Holds the system memory (RAM) modules.
- iv. **Expansion Slots (PCIe, PCI, AGP):**
 - Allow for installation of expansion cards (graphics, sound, network, etc.).
- v. **Storage Connectors (SATA, IDE, M.2):**
 - Connect storage devices (hard drives, solid state drives, etc.).
- vi. **Power Connectors (ATX, EPS, PCIe):**
 - Provide power to the CPU, motherboard, and other components.
- vii. **Cooling Systems (Heat Sinks, Fans):**
 - Dissipate heat generated by the CPU, chipset, and other components.
- ix. **Input/Output (I/O) Ports:**
 - Provide connections for peripherals (keyboard, mouse, monitor, etc.).
- x. **BIOS/UEFI Chip:**
 - Stores the motherboard's firmware and settings.
- xi. **Capacitors and Voltage Regulators:**
 - Filter and regulate the power supply to components.

Any 5 x 1mark each

6. a) Define Electronic Publication.

electronic publication (1Mark)

An electronic publication, also known as an e-publication or digital publication, refers to a work that is published in a digital format, made available through electronic media, and intended to be read or accessed online or through digital platforms.

Digital file, content published online electronically

b) Mention any four Electronic Publications that an institution may make use of.

(4Marks)

- **E-books:** Electronic versions of books that can be read on computers, e-readers, tablets or smartphones
- **Digital magazines:** Electronic versions of magazines that can be read on computers, e-readers, tablets or smartphones
- **Electronic journals:** Electronic versions of journals, often including academic research, that can be read on computers, e-readers, tablets or smartphones
- **Online magazines:** Magazines that are published online and can be read on computers, tablets or smartphones

- *Online newspapers: Newspapers that are published online and can be read on computers, tablets or smartphones*
 - *Online catalogs: Electronic versions of catalogs that can be read on computers, tablets or smartphones*
 - *Online brochures: Electronic versions of brochures that can be read on computers, tablets or smartphones*
 - *Online newsletters: Newsletters that are published online and can be read on computers, tablets or smartphones*
 - *Online presentations: Presentations that are published online and can be read on computers, tablets or smartphones*
 - *Online flyers: Flyers that are published online and can be read on computers, tablets or smartphones*
 - *Online menus: Menus that are published online and can be read on computers, tablets or smartphones*
 - *Pamphlets: Educational or informative materials that are published online and can be read on computers, tablets or smartphones*
 - *Blogs: Online journals or diaries that can be read on computers, tablets or smartphones*
 - *Collaborative software: Software that allows multiple users to collaborate on a project, often in real-time*
 - *Digital publication apps: Applications that allow users to read and interact with digital publications*
 - *Enhanced publications: Digital publications that include multimedia content, such as videos or audio recordings*
 - *File sharing: The practice of sharing files, often through online platforms or software*
 - *Mobile apps: Applications that can be downloaded on mobile devices, often including digital publications*
 - *Podcasts: Series of audio recordings that can be downloaded or streamed online*
- Any 4 x 1mark each**

7. a) Define the term netiquette

(1Marks)

Netiquette (Internet etiquette): refer to rules of behaviour when using the Internet

b) Mention any four netiquette guidelines applicable in your school setting
(4Marks)

- *Be clear: Make sure the subject line (e-mail) or title (web page) reflects your content*
- *Use appropriate language: Avoid sending Abusive and Emotional messages.*
- *Don't use ALL CAPITAL LETTERS--it's equal to shouting or screaming*
- *Be brief: If your message is short, people will be more likely to read it*

- Make a good impression: Your words and content represent you; review/edit your words and images before sending
- Don't Forward e-mail messages you receive without permission of the original sender.
- Obey copyright laws: Don't use others' images, content or use web site content without permission.
- Do not send SPAM: Spamming is posting or e-mailing unsolicited e-mail, often advertising messages, to a wide audience (another way of thinking of it is electronic junk mail).
- Don't respond to "flames" or personal attacks
- Always keep messages brief and use proper grammar and spellings.
- Never read someone's private mail.
- Don't Click on hyperlinks to unknown sites, especially on adverts and popups.
- Don't download attachments from unknown sources.
- Avoid impersonation.
- Adhere to the same standards of behaviour online that you follow in real life.
- Respect other people's time and bandwidth.
- Make yourself look good online.
- Respect other people's privacy.
- Logout or log off your account after use.
- Post only acceptable information that has no harm to the public.
- Remember you are not anonymous. What you write in an e-mail and web site can be traced back to you.

Any 4 x 1mark each

8. a) State any three differences between a file and a folder (3Marks)

	File	Folder
Definition	A collection of related data stored under a given name with a given file extension	A virtual container used to organize files and subfolders
Contents	Contains data, text, images, audio, video, etc.	Contains files and subfolders
Purpose	Stores specific information or program	Organizes and manages files and folders
Structure	Has a specific format and extension (e.g., .docx, .jpg)	Has a hierarchical structure with subfolders and files
Size	Occupies space on the hard drive based on its size	Occupies minimal space on the hard drive, regardless of contents
Access	Can be opened, created, deleted, renamed and edited	Can be opened, created, deleted, renamed without editing
Security	Has permissions and access control	Inherits permissions from parent folder

Search	<i>Can be searched by name, content, and attributes</i>	<i>Can be searched by name and contents</i>
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Any 3 x 1mark each

b) Mention any two operations that can be carried out on both files and folders

- i. Creating files and folders
- ii. Moving *opened*
- iii. Copying *encrypted*
- iv. Selecting single or multiple items (*ctrl+click / Shift+click*)
- v. Renaming *Creating Shortcut*
- vi. Searching and Sorting by name, date
- vii. Deleting etc. *Scanning*

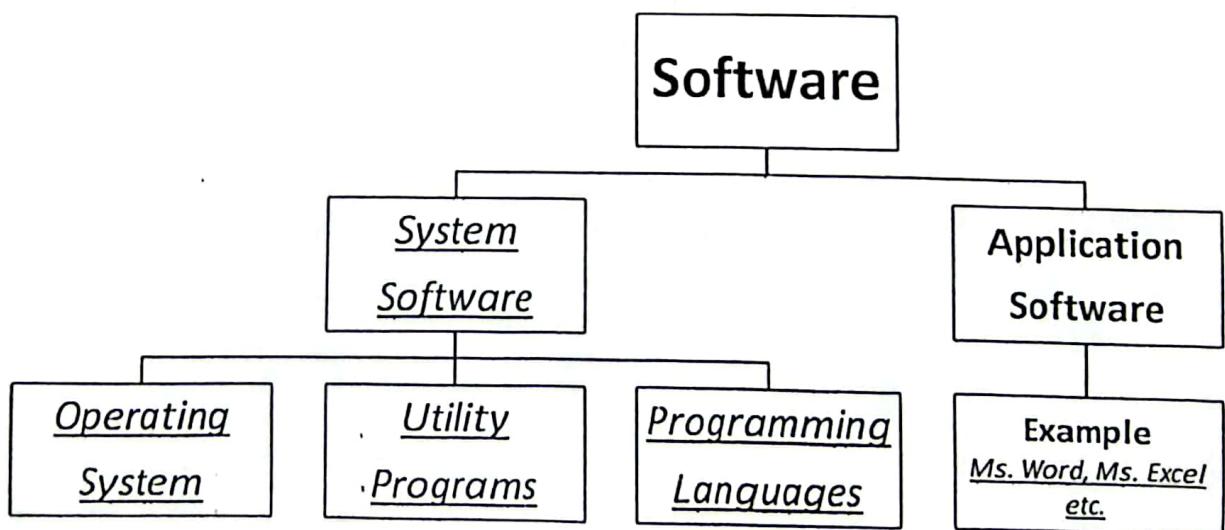
Any 2 x 1mark each

9. How would you solve the problem of computer viruses invading your computer system? - *prevent unnecessary download* (5Marks)

- i. Install the latest versions of anti-virus software on the computers
- ii. Always scan removable storage media for viruses before using them
- iii. Scan mail attachments for viruses before opening or downloading an attachment
- iv. Always keep a Recovery Disk / *Backup* *Strong pass word*
- v. Set the macro security in programs so you can enable or disable macros *Alert*
- vi. Check all downloaded programs for viruses, worms, or Trojan horses
- vii. Install a personal firewall program *Scan - Updating Computer*

Any 5 x 1mark each

10. Complete the diagram below. (5Marks)



11. Use the list of words provided below to complete the sentences below (5Marks)

Spyware, phishing, pharming, Botnet, Trojan horse, Zombie, Spoofing

- a. Spyware is program placed on computer without user's knowledge which secretly collects information about the user
- b. Trojan horse hides within or looks like legitimate program until triggered
- c. Rootkit is a program that hides in a computer and allows someone from a remote location to take full control of the computer
- d. Botnet is a group of compromised computers connected to a network such as the Internet
- e. Phishing is a scam in which a perpetrator sends an official looking e-mail message that attempts to obtain your personal or financial information

12. What are the benefits of using WhatsApp for communication? (5Marks)

- i. Convenience: WhatsApp allows users to send messages, make voice and video calls, and share media with individuals or groups from anywhere with an internet connection.
- ii. Cost-effective: WhatsApp offers free messaging and calling over the internet, reducing the need for traditional SMS and voice calls.
- iii. Group chat: WhatsApp enables group conversations, making it easy to communicate with multiple people at once.
- iv. End-to-end encryption: WhatsApp offers secure communication with end-to-end encryption, protecting user privacy.
- v. Cross-platform compatibility: WhatsApp is available on various platforms, including Android, iOS, and desktop devices.
- vi. Fast message delivery: WhatsApp messages are delivered quickly, even in areas with slow internet connectivity.
- vii. No character limit: WhatsApp allows users to send long messages without character limits.
- viii. Media sharing: WhatsApp enables users to share images, videos, documents, and audio files.
- ix. Voice and video calls: WhatsApp offers high-quality voice and video calls.
- x. Status updates: WhatsApp allows users to share status updates, similar to social media platforms.
- xi. Web version: WhatsApp has a web version, allowing users to communicate from their computers.
- xii. Offline messaging: WhatsApp allows users to send messages even when the recipient is offline.

Any 5 x 1mark each

13.a. Define the term server

(1Mark)

A server is a computer or device that provides services, resources, or data to other computers or devices over a network.

b. Mention any four types of servers (4Marks)

- i. *Web server: Hosts websites and serves web pages.*
- ii. *Database server: Manages and stores data.*
- iii. *File server: Stores and shares files.*
- iv. *Mail server: Manages email communication.*
- v. *Print server: Manages printer resources.*
- vi. *Game server: Hosts online games.*
- vii. *Application server: Runs and manages applications.*

Media
cloud
DNN
FTP-enabled file manager

Any 4 x 1mark each

14.a. Define the term ICT (1Mark)

ICT refers to a range of electronic tools and Technologies for storing, displaying and exchanging information and for communicating. OR

ICTs are all those technologies which can create, store, transmit, receive and send electronic information e.g. computers, radios, televisions, mobile phones, etc

b. Mention any four areas ICT are used in daily life. (4Marks)

- i. *Education*
- ii. *Business*
- iii. *Health*
- iv. *Security*
- v. *Politics and Governance*
- vi. *Communication*
- vii. *Art, Leisure and Entertainment*
- viii. *Technical and Scientific uses*

- *industry, security*

15. Complete the table below by writing TRUE or FALSE. (5Marks)

	STATEMENT	TRUE/FALSE
i.	A touch pad is both input and output.	FALSE
ii.	All computer hardware components are tangible	TRUE
iii.	All peripheral devices are output devices	FALSE
iv.	A webcam is a video camera connected to a computer.	TRUE
v.	Screen resolution refers to the clearness or sharpness of a display screen.	TRUE

16.a) Describe the following terms as used in file management

i. Save

(1Mark)

The "Save" command is used to store changes made to a file leaving its current name, location, and format untampered with.

ii. Save As

(1Mark)

The "Save As" command is used to store a file the first time or a new copy with a new name, location, or format leaving the original file intact.

b. Provide the keyboard shortcuts for; (3Marks)

i. Save $Ctrl + S$

ii. Save As $F12$, $Shift F12$

iii. Renaming a closed file $F2$ $F2 + F2$
 $Shift F2$

17. How does RAM and ROM compare (5Marks)

RAM	ROM
<i>Definition of RAM is Random Access Memory</i>	<i>Definition of ROM is Read-only Memory</i>
<i>Random Access Memory (RAM) is expensive when compared to ROM</i>	<i>ROM is cheaper when compared to RAM. <small>in terms of maintenance</small></i>
<i>The speed of Random Access Memory (RAM) is higher when compared to ROM</i>	<i>The speed of Read-only Memory (ROM) is slower when compared to RAM.</i>
<i>Random Access Memory (RAM) has a higher capacity when compared to ROM</i>	<i>ROM has a lower capacity compared to RAM.</i>
<i>Data in RAM can be modified, erased, or read.</i>	<i>Data in ROM can only be read, it cannot be modified or erased.</i>
<i>The data stored in RAM is used by the Central Processing Unit (CPU) to process current instructions</i>	<i>The data stored in ROM is used to bootstrap the computer.</i>
<i>Data stored on RAM can be accessed by the Central Processing Unit.</i>	<i>If the Central Processing Unit (CPU) needs to access the data on ROM, first the data must be transferred to RAM, and then the Central Processing Unit (CPU) will be able to access the data.</i>
<i>Data of RAM is very volatile, it will exist as long as there is no interruption in power.</i>	<i>Data present in Read-Only Memory (ROM) is not volatile, it is permanent. Data will remain unchanged even when there is a disruption in the power supply.</i>

Any 5 x 1mark each

18. You are a small business owner who sells handmade crafts. You decide to use online marketing tools to promote your business.

a. Mention one online marketing tool you would use.

(1Mark)

1. Social media platforms (Instagram, Facebook, Pinterest) for visual showcase and engagement.

2. Email marketing (Mailchimp) for newsletters and promotions.
3. Search Engine Optimization (SEO) for website visibility.
4. Influencer marketing (collaborations with craft influencers).
5. Online advertising (Google Ads, Facebook Ads).
6. Content marketing (blogging about crafting, DIY tutorials).
7. E-commerce platform (Shopify) for online sales.

Any 1 x 1mark

- b. Which privileges would you enjoy? (2Marks)
- i. Global reach and exposure.
 - ii. Increased brand awareness and recognition.
 - iii. Ability to connect with customers and build relationships.
 - iv. Access to analytics and insights to inform business decisions.
 - v. Flexibility and scalability. - Online transaction
 - vi. Cost-effective marketing strategies. - collaborative research
 - vii. Ability to showcase products and services visually

Any 2 x 1mark each - Business 24/7
- Minimal taxes

- c. Which challenges are you most likely to encounter? (2Marks)
- i. Competition in the online market. Threats, virus
 - ii. Difficulty in standing out and differentiating my business.
 - iii. Limited technical expertise. Maintenance in terms of cost
 - iv. Managing and responding to online reviews and feedback.
 - v. Ensuring website and data security.
 - vi. Keeping up with algorithm changes and online trends. Updated
 - vii. Balancing online marketing with in-person sales and event

Any 2 x 1mark each

- 19.a) Give any two guidelines for creating a secure password (2Marks)

- i. Longer passwords - 8 character
- ii. Use a mix of characters.
- iii. Avoid common substitutions. e.g Names, DOB
- iv. Don't use memorable keyboard paths
- v. Multiple words
- vi. The sentence method: think of a random sentence and transform it into a password using a rule. For example, taking the first two letters of every word
- vii. Use multi-factor authentication - face, then password
- viii. Use a VPN when on public Wi-Fi.
- ix. Make sure your antivirus is up-to-date

Any 2 x 1mark each

b) Besides the use of passwords, how else can one secure a computer system or the data there in? (3Marks)

- i. *Enable Two-Factor Authentication (2FA): Requires a second form of verification, like a code sent to your phone or a biometric scan.*
- ii. *Use Encryption: Scrambles data to make it unreadable to unauthorized users.*
- iii. *Install Firewalls: Blocks unauthorized access to your system.*
- iv. *Keep Software Up-to-Date: Regularly update operating systems, applications, and security software to patch vulnerabilities.*
- v. *Use Secure Protocols: Use HTTPS and SFTP instead of HTTP and FTP.*
- vi. *Set Access Controls: Limit user privileges and access to sensitive data.*
- vii. *Use Intrusion Detection/Prevention Systems (IDPS/IPS): Monitor and block suspicious activity.*
- viii. *Regularly Back Up Data: Store backups securely offline.*
- ix. *Use Secure Boot and BIOS Settings: Ensure the system boots securely and prevents unauthorized changes.*
- x. *Physically Secure the System: Lock computers and devices in a secure location.*
- xi. *Use Anti-Virus and Anti-Malware Software: Detect and remove malicious programs.*
- xii. *Use a Virtual Private Network (VPN): Encrypts internet traffic.*
- xiii. *Implement a Zero-Trust Policy: Verify the identity and permissions of users and devices before granting access.*
- xiv. *Use Secure Erasure: Completely wipe sensitive data from devices.*
- xv. *Conduct Regular Security Audits: Identify and address vulnerabilities*

Any 3 x 1mark each

20.a) Which features of Microsoft PowerPoint distinguish it from Ms. Word (2Marks)

Feature	Microsoft PowerPoint	Microsoft Word
Primary Function	Presentation creation	Document creation and editing
Slide-based Structure	Yes <i>slide</i>	No <i>page</i>
Text Formatting	Basic and slide-specific	Advanced and comprehensive
Templates and Themes	Extensive templates for presentations	Limited templates for documents
Animations and Transitions	Yes, for slides and objects	No
Multimedia Integration	Yes, supports videos, audio, images	Limited, primarily images and audio
Speaker Notes	Yes	No
Collaboration Features	Real-time co-authoring	Real-time co-authoring
Chart and Graph Tools	Basic and embedded in slides	Advanced, integrated with Excel
Design Tools	Focused on visual and layout design	Focused on text formatting and layout
SmartArt Graphics	Yes	Yes
Review and Commenting	Yes, slide-specific comments	Yes, document-wide comments
Print Options	Handouts, slides, and notes pages	Multiple layouts for text documents

Hyperlinking	Yes, for navigating between slides	Yes, for navigating within or between documents
Export Options	PDF, video, image formats	PDF, text, web pages
Integration with Other Office Apps	Yes, integrates well with Excel, Word, and OneNote	Yes, integrates well with Excel, PowerPoint, and OneNote
Custom Slide Shows	Yes, create custom slide sequences	No
Drawing and Shapes Tools	Extensive, tailored for presentations	Basic
Table Creation	Yes, but less advanced than Word	Advanced
Slide Master and Layouts	Yes, manage global slide settings	No

Any 2 x 1mark each: The gray highlights in the table have been left there for information purpose.

b) Of what use is a presentation software to a student? (3Marks)

i. *Enhancing Classroom Presentations:*

- *Visual Aid:* Helps in creating visually appealing presentations with images, charts, and videos that can make complex information more understandable.
- *Organized Content:* Allows students to organize their thoughts and structure their presentations logically, making it easier to convey their ideas.

ii. *Developing Presentation Skills:*

- *Public Speaking:* Provides a platform for practicing and improving public speaking skills, which are essential for academic and professional success.
- *Confidence Building:* Using well-prepared slides can boost confidence during presentations, helping students feel more in control and less nervous.

iii. *Collaborative Projects:*

- *Group Work:* Enables collaboration on group projects by allowing multiple students to work on the same presentation, often in real-time.
- *Feedback Integration:* Facilitates easy incorporation of feedback from peers and instructors into the presentation.

iv. *Effective Study Tool:*

- *Summarizing Notes:* Helps in summarizing and reviewing study material, making it easier to study for exams and retain information.
- *Interactive Learning:* Can be used to create interactive presentations that include quizzes and interactive elements, promoting active learning.

v. *Creative Expression:*

- *Multimedia Integration:* Encourages creative expression by allowing students to include multimedia elements like audio, video, and animations.
- *Design Skills:* Helps students develop design and technical skills, which are valuable in various fields.

vi. *Professional Skills Development:*

- *Project Management:* Teaches students to manage a project from conception to completion, including research, design, and presentation stages.

- *Technology Proficiency: Enhances familiarity with technology and software tools, preparing students for future academic and career challenges.*

vii. Event Participation:

- *Competitions and Seminars: Useful for participating in academic competitions, seminars, and conferences, where presenting ideas effectively is crucial.*
- *Science Fairs and Exhibits: Helps in preparing for science fairs and other exhibits by creating engaging and informative presentations.*

viii. Communication Enhancement:

- *Clarity: Aids in presenting ideas clearly and concisely, which is beneficial for both written and oral communication.*
- *Persuasion: Enhances persuasive skills by allowing students to present arguments and data compellingly.*

ix. Documentation:

- *Research Projects: Useful for documenting research findings and presenting them in a structured format.*
- *Thesis Defense: Assists in preparing for thesis defenses and other major academic presentations.*

Any 2 x 1mark each

END