



Class: XI  
Time Allowed: 20 minutes

MODEL PAPER EXAMINATION 2025  
SUBJECT: COMPUTER SCIENCE  
SECTION "A"

Marks: 15

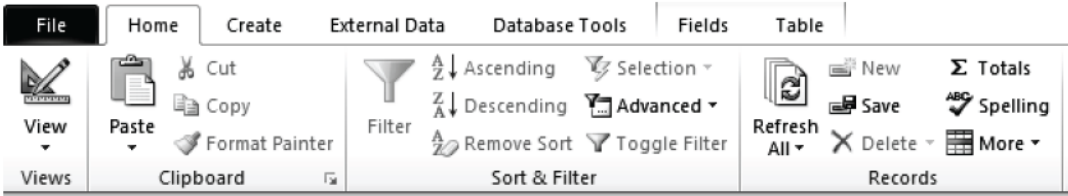
Note: Attempt **ALL** questions from this section. Each question carries **ONE** mark.

- 1. This is an example of system software:  
A. MS Excel                      B. MS Word                      C. Operating system                      D. Basic
- 2. The process of converting digital signals to analog signals is called:  
A. Modulation                      B. Demodulation                      C. Synchronization                      D. Transformation
- 3. This is not a computer virus:  
A. Trojan horse                      B. Time bomb                      C. Avast                      D. Worn
- 4. In topology, all the nodes in the network are connected to a single cable or line:  
A. Mesh                      B. Star                      C. Tree                      D. Ring
- 5. DPI stand for  
A. Dot per inch                      B. Decimal per inch                      C. Digital per inch                      D. Data per inch
- 6. A bar code reader is an example of a/an  
A. Processing device                      B. Input device                      C. Storage device                      D. output device
- 7. The internal process of stating up a computer is  
A. Booting                      B. Self-start                      C. Warm up                      D. Start up
- 8. Hardware and software combination used for connecting similar network is an:  
A. Router                      B. Gateway                      C. Bridge                      D. Switch
- 9. This technology is used to in compact disks:  
A. Mechanical                      B. Electrical                      C. Electromagnetic                      D. Laser
- 10. The set of rules to send and receive data is:  
A. Register                      B. Protocol                      C. Bus                      D. Ethernet
- 11. The peripheral devices are attached with computer through:  
A. Sockets                      B. Connector                      C. Ports                      D. Plugs
- 12. This is the physical part over which message travels:  
A. Compiler                      B. Protocol                      C. Medium                      D. Operating system
- 13. This virus replicates itself:  
A. Worm                      B. Bug                      C. Vaccine                      D. Bomb
- 14. A hybrid computer is a/an:  
A. Digital computer                      B. Analogue computer                      C. Both of these                      D. None of these
- 15. This software resides permanently in the memory chip:  
A. Freeware                      B. Shareware                      C. Firmware                      D. Spyware

(Practical based Assessment) (PBA)

Marks: 25

Note: Attempt **ALL** questions. **Q16** carries **ONE** mark, all others carry **TWO** marks each.  
Use the following picture to answer **Q16-21**



- 16. Which tab in the MS Access toolbar is selected in this image?  
A. Create                      B. File                      C. Home                      D. Database Tools
- 17. You need to organize a table in MS Access to display records in alphabetical order based on a "Last Name" field. Which steps would you follow using the options available in this toolbar?  
A. Select the field, then click "Filter" followed by "Ascending."  
B. Click "New" to create a new table and then enter records alphabetically.  
C. Use "Format Painter" to copy the formatting and select "Save."  
D. Select the "Last Name" field, then click "Ascending" in the Sort & Filter group.
- 18. Imagine you applied multiple filters in an MS Access database but want to remove them to view all records. Which option would be most efficient in this scenario?  
A. Click on "Toggle Filter" to remove any active filters.                      B. Use "New" to create a fresh table without filters.  
C. Click "Spelling" to reset filters.                      D. Use "Advanced" to create new filtering rules.
- 19. You want to add a total row to calculate the sum of values in a numerical field within an MS Access table. Which combination of options would you use?  
A. Click "Save" and then "Filter" to calculate totals.  
B. Use "Totals" in the Records group to add a total row.  
C. Click "Advanced" under Sort & Filter and select "Total."  
D. Use "View" followed by "Ascending" to display totals.
- 20. After entering new data into a table, you notice that the view is not updated with the latest records. Which button would best refresh the data to display current records?  
A. Save                      B. Refresh All                      C. Toggle Filter                      D. Sort & Filter



21. A database administrator wants to quickly copy the formatting of one field to other fields in a table without affecting data values. Which tool in the toolbar would be suitable for this task?
- A. Filter                                      B. Format Painter                                      C. Ascending                                      D. Toggle Filter

Use the following picture to answer Q22-26

Field:	Book ID	ISBN	Book Title	Subject	Publishing Date	Is Available
Table:	BOOK	BOOK	BOOK	BOOK	BOOK	BOOK
Sort:						
Show:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:				= "Physics"		
Or:						

22. What will be the output of the query based on the design shown in the image?
- A. All books with any subject                                      B. All books with the subject "Physics"
- C. All books that are available                                      D. All books with ISBN numbers
23. In this query design, which fields will be shown in the output?
- A. Book ID, Book Title, Subject, and Publishing Date                                      B. ISBN and Is Available
- C. Book ID and ISBN only                                      D. All fields
24. What condition is applied to filter records in this query design?
- A. The book must have an ISBN                                      B. The book must be available
- C. The book's subject must be "Physics"                                      D. The book must have a specific publishing date
25. If you wanted to sort the output by Publishing Date in ascending order, where would you make the change in this query design?
- A. In the Show row under Publishing Date                                      B. In the Sort row under Publishing Date
- C. In the Criteria row under Subject                                      D. In the Table row under Book Title
26. What would happen if the "Show" checkbox for the "Subject" field was unchecked in this design?
- A. The subject "Physics" condition would be ignored
- B. The output would not show the "Subject" field, but only records with "Physics" would still be selected
- C. All records, regardless of subject, would be shown
- D. It would display an error message
27. Which of the following SQL statements will correctly select all records from a table named "Students"?
- A. SELECT all FROM Students;                                      B. SELECT \* FROM Students;
- C. SELECT all records FROM Students;                                      D. SELECT everything FROM Students;
28. A database administrator wants to ensure that a "Salary" field in a table, with a numeric data type, only accepts values between 30000 and 70000. Which of the following data validation conditions should be applied?
- A. >=30000 OR <=70000      B. >=30000 AND <=70000      C. <30000 OR >70000      D. BETWEEN 30000 AND 70000

END OF SECTION A

Class: XI                                      MODEL PAPER EXAMINATION 2025

Time: 2 hours 40 minutes      SUBJECT: COMPUTER SCIENCE SECTION “B” AND SECTION “C”      Total Marks 60

Q2:                                      SECTION “B” SHORT ANSWER QUESTIONS                                      30Marks

Note: Attempt any **TEN** parts. All question carries equal marks.

- i. What is data communication, and what are its essential components? Explain their functions.
- ii. Explain modulation and demodulation, and describe their significance in data transmission.
- iii. Why is ROM classified as nonvolatile memory? Provide examples of its applications.
- iv. Identify two simplex devices used in communication systems, and discuss their role.
- v. Illustrate and label a block diagram of the fetch cycle, and describe its steps.
- vi. What is a protocol in networking? List three common protocols and explain their purposes.
- vii. Define an interpreter and compare it with a compiler in terms of functionality and performance.
- viii. Summarize the copyright law, and discuss its advantages in protecting intellectual property.
- ix. Draw and label the OSI model. Briefly explain the function of any three layers.
- x. Explain the instruction cycle with a well-labeled diagram. How does it relate to the functioning of a CPU?
- xi. Describe star topology, and analyze its advantages and potential limitations.
- xii. Which mode of data transmission is best suited for communication between a computer and a printer? Justify your answer.
- xiii. Discuss the role of the internet in education. Provide examples of how it enhances learning and teaching processes.
- xiv. Identify two full-duplex devices, and evaluate how their functionality improves communication systems.

SECTION “C” DETAILED ANSWER QUESTIONS                                      30 Marks

Note: Attempt any **TWO** questions. All question carries equal marks.

- Q3 a. What is system software? Describe an operating system and explain its primary functions. (8)
- Q3 b. Explain the OSI model with the help of a labeled diagram. Discuss the role of each layer. (7)
- Q4 a. What is communication media in data transmission? Provide an overview and explain its various types. (8)
- Q4 b. Describe the different types of communication media or channels used in data communication. Provide examples for each. (7)
- Q5 a. What is network topology? Explain the different types of topologies with examples. (8)
- Q5 b. Explain the concept of basic logic gates. Use diagrams to illustrate their working. (7)

END OF PAPER