



THE HIGH COURT OF MADHYA PRADESH : JABALPUR

(Examination Section)

NOTIFICATION

No. **08** /Exam/DPA/2025

Jabalpur, dated 20.01.2026

The High Court of Madhya Pradesh is pleased to publish the Proposed Model Answers for the Question Paper (Objective Type) of Online Preliminary Screening Examination of Data Processing Assistant (Direct Recruitment) Exam-2025, held on 20.01.2026. High Court of Madhya Pradesh intends to use the Proposed Model Answers in the evaluation of the aforementioned question paper.

If any candidate wishes to make any objection etc. regarding any Model Answer(s), he/she may submit objection regarding question(s) in writing & signed by him/her to the Principal Registrar (Exam), High Court of Madhya Pradesh, Jabalpur, by way of **post or by hand only** in Receipt Section of High Court of Madhya Pradesh within 07 days from the date of uploading of the proposed Model Answers on website, during working hours, by mentioning his/her Name & Application number along-with self attested photo copies of source document(s)/proof, on the basis of which he/she has submitted the objection(s).

Only offline objection(s) will be entertained. Objection(s) received through E-mail or any other mode shall not be entertained.

Objections received within aforesaid time, aforesaid mode and proper format or even suo-moto shall be taken into consideration. However, any objection received other than prescribed format or without any authentic proof/source or any objection received after aforesaid stipulated period/time shall not be considered on any ground including postal delay.

After declaration of result of Online Preliminary Screening Examination, no representation regarding final model answer keys or Questions shall be entertained on any ground, whatsoever.

*Yadav
20.01.2026*
(Sangeeta Yadav)
Registrar (Exam)

Attached :- Question paper alongwith Proposed Model Answers and format for submitting objection(s).

HIGH COURT OF MADHYA PRADESH : JABALPUR

**Question Paper-cum-Proposed Model Answers of Online Preliminary Screening
Examination for direct recruitment to the post of Data Processing Assistant Exam-
2025 held on 20.01.2026.**

Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
1	In TCP state diagram, after SYN_SENT and receiving SYN+ACK, next state is ?	2	CLOSED	ESTABLISHED	SYN_RECEIVED	FIN_WAIT
2	What is the primary purpose of intrusion detection systems?	2	Prevent all intrusions	Detect suspicious activity and alert administrators	Encrypt network traffic	Manage user passwords
3	If a Class C network on the Internet has a subnet mask of 255.255.255.240, what is the maximum number of hosts per subnet?	4	30	16	15	14
4	In immediate addressing mode, the operand is ?	3	Stored in memory at an address specified by instruction	Found in CPU registers	Specified explicitly in the instruction	Fetched from I/O port
5	What does 'edge computing' in IoT refer to?	1	Processing data near the source of generation	Sending all data to the cloud for processing	Using centralized data centers only	Storing data offline permanently
6	Which of the following scheduling algorithms may lead to starvation?	2	First-Come-First-Served (FCFS)	Shortest Job First (SJF)	Round Robin (RR)	Multilevel Feedback Queue (MLFQ) with aging
7	The program counter (PC) holds ?	3	The current instruction	The last executed opcode	The address of the next instruction to be fetched	The data currently being processed
8	In TCP connection release, which state avoids confusion with delayed duplicates?	1	TIME_WAIT	CLOSED	SYN_SENT	LISTEN
9	Which of the following services is not provided by the Point-to-Point Protocol (PPP)?	4	Framing	Multiplexing of protocols	Authentication	Error correction
10	Which of the following best describes the function of the Address Resolution Protocol (ARP)?	4	Map MAC to IP address	Translate IPv4 to IPv6	Map hostname to IP	Map IP to MAC address
11	Which of the following is NOT a communication protocol used in IoT?	4	MQTT	CoAP	HTTP	FTP
12	Which QoS parameter specifies variation in packet delay?	1	Jitter	Latency	Reliability	Throughput
13	In disk scheduling, the time taken for the disk arm to reach the desired track is ?	3	Latency	Transfer time	Seek time	Access time

Madarsa

Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
14	What is the main idea on which the Von Neumann architecture is based?	3	Data and instructions use separate memories	Data and instructions are stored on different physical processors	Data and instructions share the same read-write memory	The CPU can execute multiple instructions simultaneously without memory access.
15	In computer Architecture, branch prediction is used to?	1	Reduce pipeline stalls and improve instruction flow	Increase cache memory size by predicting memory requirement	Decode multiple instructions at once	Control data hazards during instruction fetch
16	If N is the number of distinct sequence numbers and k is the number of bits in sequence number, then Go-Back-N ARQ requires the sender window size to be less than or equal to which of the following ?	3	N	N+1	$2^k - 1$	2^k
17	A single SQL statement involves many separate accesses to the database and a transaction may consist of several SQL statements. The database system must take special actions to ensure that transactions operate properly without interference from concurrently executing database statements. This property is called as?	3	Atomicity	Consistency	Isolation	Durability
18	Which layer of IoT architecture is responsible for data sensing and collection?	1	Perception Layer	Network Layer	Application Layer	Middleware Layer
19	Consider the following C program. <pre>#include <stdio.h> int f() { static int x = 5; printf("%d", x); return (x-- > 2); } int main() { while (f()) f(); return 0; }</pre> What is the output of the above C program?	1	54321	5432	543210	54433
20	The maximum number of nodes in a binary tree of height h is?	1	$2^{h+1} - 1$	h^2	2h	$2h - 1$
21	Which traversal technique uses a queue?	2	Depth-first search	Breadth-first search	In-order traversal	Post-order traversal

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Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
22	What is the output of the following C program? #include <stdio.h> int main() { int a[] = {10, 20, 30, 40}; int *p = a, *q = a + 3; printf("%d,%d", (int)(q - p), *q - *p); return 0; }	3	3,20	2,20	3,30	4,30
23	What is the primary goal of a Distributed Denial of Service (DDoS) attack?	2	Steal data	Disrupt service availability	Encrypt user data	Spy on network traffic
24	RSA algorithm belongs to which type of cryptosystem?	2	Symmetric-key cryptography	Asymmetric-key cryptography	Hash functions	Stream ciphers
25	What is the output of the following C program? #include <stdio.h> int main() { int a[] = {2, 4, 6, 8, 10}; int i, sum = 0, *p = a + 3; for (i = 0; i < 3; i++) sum = sum + (*p - i) + *(p - i); printf("%d\n", sum); return 0; }	2	37	39	41	43
26	The property of an algorithm which ensures that each step of the algorithm is clear, precise, and unambiguous is called?	3	Effectiveness	Finiteness	Definiteness	Output
27	Relations R(A, B, C) and S(B, D, E) and B is a key in relation R. Relation R has 200 tuples and S has 100 tuples. What is the maximum number of tuples possible in the natural join $R \bowtie S$?	1	100	200	300	20000
28	In object-oriented programming, which concept promotes code reusability?	4	Encapsulation	Abstraction	Polymorphism	Inheritance
29	Which normal form is based on multi-valued dependencies?	2	BCNF'	4NF'	5NF'	3NF'
30	What is the primary purpose of data communication?	1	To transmit data	To process data	To store data	To display data
31	Which device connects multiple networks?	3	Switch	Hub	Router	Bridge
32	The main goal of information security is ?	2	Speed	Confidentiality, Integrity, Availability	Redundancy	Connectivity
33	Which data structure uses FIFO?	2	Stack	Queue	Tree	Graph
34	Which of the following is a linear data structure?	3	Tree	Graph	Stack	Heap

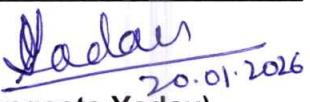
Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
35	Stack overflow occurs when ?	1	Stack is full	Stack is empty	Queue is full	Memory is cleared
36	The best case complexity of Bubble Sort is ?	4	$O(n^2)$	$O(\log n)$	$O(n \log n)$	$O(n)$
37	Which memory is volatile?	3	ROM	Flash	RAM	Hard Disk
38	Instruction pipelining is used to ?	2	Increase memory size	Execute multiple instructions simultaneously	Slow down processing	Reduce cache
39	Polymorphism allows ?	1	One function to take many forms	Multiple memory access	Data encryption	Sequential execution
40	Destructor is used for ?	2	Creating objects	Deleting objects and freeing memory	Performing arithmetic	Input/output
41	Primary key is ?	1	A field that uniquely identifies a record	A key that can be duplicated	A password	A foreign key
42	ACID in DBMS refers to ?	2	Attributes, Columns, Index, Data	Atomicity, Consistency, Isolation, Durability	Access, Control, Index, Data	Authentication, Control, Insertion, Deletion
43	A view in DBMS is ?	2	Physical copy of table	Virtual table	Memory location	Database index
44	Deadlock occurs when ?	3	Processes terminate normally	CPU utilization is 100%	Multiple processes wait indefinitely for resources	Memory is low
45	Semaphores are used for ?	2	Memory allocation	Process synchronization	File encryption	Disk scheduling
46	Which of the following is the fastest memory?	1	Registers	Cache	RAM	Hard Disk
47	The CPU clock determines ?	1	Execution speed of instructions	Number of I/O devices	Cache size	Disk speed
48	Merge Sort is ?	1	Recursive and stable	Iterative and unstable	Recursive and unstable	Iterative and stable
49	Dynamic programming is used when ?	2	No subproblems	Problems have overlapping subproblems	Only one solution	CPU is idle
50	HTTP is used for ?	2	Email transfer	Web communication	File compression	CPU scheduling
51	Data packets are transmitted in ?	3	Bits	Bytes	Frames	Cells
52	Process scheduling improves ?	2	Memory size	CPU utilization	Disk speed	Bandwidth
53	Which manages hardware and software resources?	2	BIOS	Operating System	Compiler	Interpreter
54	Paging avoids ?	3	CPU slowdown	File deletion	External fragmentation	Network congestion
55	Deadlock prevention requires ?	1	Avoiding circular wait	Increasing CPU	Disk caching	Encryption
56	OS handles interrupts to ?	2	Speed CPU	Respond to events	Encrypt data	Increase disk speed
57	MQTT is a protocol used for ?	2	Web development	IoT messaging	File transfer	OS scheduling
58	IoT architecture typically has how many layers?	3	1	2	3-5	10

Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
59	Smart homes are an example of ?	2	Industrial IoT	Consumer IoT	Network IoT	Cloud IoT
60	In algorithm analysis, best case refers to ?	2	Maximum time	Minimum time	Average time	Disk operations
61	The kernel of an operating system is responsible for ?	2	User interface	Managing hardware and system resources	Word processing	Printing only
62	Abstract class cannot ?	2	Have a constructor	Be instantiated	Have functions	Be inherited
63	The CPU consists of which main parts?	1	ALU, CU, Registers	Cache, ROM, RAM	Bus, I/O devices	Stack, Queue
64	Which of the following is a design principle?	1	Single Responsibility Principle	Encryption Principle	Fragmentation Principle	Paging Principle
65	Which of the following is a non-preemptive scheduling algorithm?	2	Round Robin	FCFS	Priority Scheduling (preemptive)	Multilevel Queue
66	What does OSI stand for in networking?	1	Open System Interconnection	Optical Service Implementation	Operating System Interface	Open Service Internet
67	How many layers does the OSI model contain?	3	4	5	7	6
68	The process of verifying the identity of a user is ?	1	Authentication	Identification	Validation	Verification
69	What does the term "firewall" in network security refer to ?	2	A malware detection tool	A system designed to prevent unauthorized access	A type of antivirus software	A physical barrier
70	What does "zero trust" mean in network security?	3	Always assuming a network is secure	Trusting all devices connected to the network	Verifying every access request regardless of origin	Avoiding use of encryption
71	The information that gets transformed in encryption is _____ ?	1	Plain text	Parallel text	Decrypted text	Encrypted text
72	Which algorithm is used in the top tree data structure?	1	Divide and Conquer	Backtracking	Branch	Greedy
73	What is the advantage of a hash table as a data structure?	2	easy to implement	faster access of data	exhibit good locality of reference	very efficient for less number of entries
74	What are the two main types of functions in Python?	2	System function	Built-in function & User defined function	Custom function	User function
75	What does the term 'fetch' refer to in the context of the fetch-decode-execute cycle?	1	The CPU retrieves the next instruction from memory	The CPU decodes the instruction	The CPU executes the instruction	The CPU stores the result
76	The BOOT sector files of the system are stored in _____ ?	2	Hard disk	ROM	RAM	Fast solid state chips in the motherboard

Nadar

Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
77	In an 8-bit processor, the maximum decimal value that can be stored in a register is ?	2	128	255	512	1024
78	In a 32-bit system, what is the maximum size of the addressable memory?	2	256 MB	4 GB	8 GB	16 GB
79	What is DBMS?	4	DBMS is a collection of queries	DBMS is a high-level language	DBMS is a programming language	DBMS stores, modifies and retrieves data
80	In an ER diagram, what do entities represent?	3	Relationships between tables	Physical storage locations	Real-world objects or concepts	Database queries
81	Which SQL keyword is used to remove a table from a database?	1	Drop	Delete	Remove	Alter
82	In SQL, the JOIN clause is used to ?	4	Combine rows from only two tables based on related columns	Delete matching rows in two tables	Update matching columns in two tables	Combine rows from two or more tables based on related columns
83	Which normal form is concerned with removing partial dependency between columns of a database table?	2	1NF	2NF	3NF	BCNF
84	The ability to query data, as well as insert, delete, and alter tuples, is offered by _____?	4	TCL (Transaction Control Language)	DCL (Data Control Language)	DDL (Data Definition Langauge)	DML (Data Manipulation Langauge)
85	What does FAT mean?	3	File format attribute	Font allocation tree	File allocation table	Font attribute table
86	To reduce the memory access time, we generally make use of _____?	3	SDRAM	Heaps	Cache	Higher capacity RAM's
87	In a 4K-bit chip, organisation has a total of 19 external connections, then it has _____ address if 8 data lines are there ?	3	10	12	9	8
88	While using the direct mapping technique, in a 16 bit system the higher order 5 bits are used for _____?	3	Id	Word	Tag	Block
89	Which of the following is an example of Bluetooth?	4	wide area network	virtual private network	local area network	personal area network
90	Which of the following allows LAN users to share computer programs and data?	1	File server	Network	Communication server	Print server
91	Which of the following is not a sensor in IoT?	4	BMP280	DHT11	Photoresistor	LED
92	Which of the following is not an actuator in IoT?	4	Stepper motor	A fan	An LED	Arduino
93	Which of the following is a type of instruction format?	4	Zero-address	One-address	Two-address	All of these
94	Which of the following is used for comments in C++?	3	/* comment */	// comment	both // comment or /* comment */	// comment */

Que. No.	Question Text	Proposed Ans.	Option 1	Option 2	Option 3	Option 4
95	Which of the following techniques is used to effectively utilize main memory?	3	Address binding	Dynamic linking	Dynamic loading	Both Dynamic linking and loading
96	The primary difference between a process and a thread is ?	1	A thread is a part of a process	A process is less resource-intensive	Threads do not share resources	All of the above
97	Which of the following concurrency control protocols ensure both conflict serializability and freedom from deadlock? I. 2-phase locking II. Time-stamp ordering protocol	2	I and II	only II	only I	None
98	Single inheritance, Multiple inheritance, and Aggregation comes under _____ ?	3	Modularity	Typing	Hierarchy	None of the mentioned
99	Which file system type is used in Windows?	4	NTFS	EXT4	FAT32	Both NTFS and FAT32
100	Python supports the creation of anonymous functions at runtime, using a construct called _____ ?	3	pi	anonymous	lambda	none of the mentioned


 20.01.2026
 (Sangeeta Yadav)
 Registrar (Exam)

Online Screening Examination for the posts of Data Processing Assistant (Direct Recruitment) Exam-2025

Format for submitting Objection(s) on proposed Model Answers

Application No.....

Name of Applicant.....

—Q.No. in which objection is to be raised:

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—Objection (Tick which is applicable):

- 1. Provided answer is wrong
- 2. More than one answer is correct
- 3. Question is wrong
- 4. All answers are incorrect
- 5. Other (Please specify)

Objection in Brief for Q.No.

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Source Annexed as

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Signature:.....

Date:.....

Note: 1. Please use 2nd sheet (if required)

2. Please mention Q.No. in top of source material provided for that Question, highlighting the particular portion or line on which objection is based.