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Title *	Question Paper Answer Key
OES Exam *	GPSC10202407 / Assistant Professors in Government College in Computer Science/ Completed / 2025-03-01

1

Question Description	Echo command is used for _____
A	Displaying diagnostic messages
B	Displaying date and time
C	Displaying errors
D	Displaying operating system details
E	None of the above
Correct Answer	A
Marks	1

2

Question Description	In how many ways can the letters of the word "APPLE" be arranged?
A	60
B	120
C	240
D	30
E	None of the above
Correct Answer	A
Marks	1

3	Question Description	Which one of the following options is CORRECT given three positive integers x, y, and z, and a predicate P(x) = (x = 1) v y(3z(x=y*z) = (y = x) v (y = 1))
	A	P(x) being true means that x is a prime number
	B	P(x) being true means that x is a number other than 1
	C	P(x) is always true irrespective of the value of x
	D	P(x) being true means that x has exactly two factors other than 1 and x
	E	None of the above
	Correct Answer	A
	Marks	1

4	**Question Description**	Which of the following is a major advantage of the Spiral model?
	A	It minimizes documentation and customer involvement
	B	It allows for a high degree of flexibility and continuous iteration
	C	It does not require a clear understanding of the final system
	D	It eliminates the need for risk management
	E	None of the above
	Correct Answer	B
	Marks	1

5	Question Description	In which traversal method of a binary tree do we visit the root node first, followed by the left subtree and then the right subtree?
	A	Inorder
	B	Preorder
	C	Postorder
	D	Level-order
	E	None of the above
	Correct Answer	B
	Marks	1

6	Question Description	A router has an MTU of 1500 bytes. How many fragments will it create if a packet of 4000 bytes is sent?
	A	2
	B	3
	C	4
	D	5
	E	None of the above
	Correct Answer	B
	Marks	1

7	Question Description	How many bit strings of length ten either start with a 1 bit or end with two bits 00?
	A	320
	B	480
	C	640
	D	768
	E	None of the above
	Correct Answer	C
	Marks	1

8		
Question Description		What is the 2's complement of (-28)10 in 16-bit representation?
A		1111111011000010
B		1000000000011100
C		0111111011101110
D		1111111111100100
E		None of the above
Correct Answer		C
Marks		1

9	Question Description	What is the Boolean expression for a two-input XOR (exclusive OR) gate?
	A	A + B
	B	A'B + AB'
	C	(A + B)'
	D	AB
	E	None of the above
	Correct Answer	B
	Marks	1

10	Question Description	Which of the following layers in the OSI model is responsible for data encryption and compression?
	A	Application
	B	Presentation
	C	Session
	D	Transport
	E	None of the above
	Correct Answer	B
	Marks	1

11	Question Description	What is a shared memory architecture in parallel computing?
	A	Each processor has its own local memory, and data is communicated via messages
	B	Multiple processors access the same memory space for reading and writing data
	C	Memory is partitioned into multiple segments that are each owned by a different processor
	D	The system's memory is centralized and accessed through a network
	E	None of the above
	Correct Answer	B
	Marks	1

12	Question Description	What is the primary difference between 1's complement and 2's complement representation of signed integers?
	A	1's complement requires an extra bit for sign representation, while 2's complement does not.
	B	1's complement has two representations for zero, while 2's complement has only one.
	C	2's complement cannot represent negative numbers, while 1's complement can.
	D	1's complement is used in modern computers, while 2's complement is not.
	E	None of the above
	Correct Answer	B
	Marks	1

13	Question Description	Which of the following SQL statements is a DDL (Data Definition Language) command?
	A	SELECT
	B	INSERT
	C	UPDATE
	D	CREATE
	E	None of the above
	Correct Answer	B
	Marks	1

14	Question Description	What is the purpose of the GRANT command in DCL?
	A	To delete a user from the database
	B	To provide specific privileges to users
	C	To create a new database
	D	To modify existing data
	E	None of the above
	Correct Answer	B
	Marks	1

15	Question Description	How many bits are used for the network portion in a Class B IP address?
	A	8 bits
	B	16 bits
	C	24 bits
	D	32 bits
	E	None of the above
	Correct Answer	B
	Marks	1

16	Question Description	Which of the following is an example of a supervised learning technique in data mining?
	A	K-means clustering
	B	Decision trees
	C	Association rule mining
	D	Principal Component Analysis (PCA)
	E	None of the above
	Correct Answer	B
	Marks	1

17	Question Description	Which of the following is a key principle of software testing?
	A	Testing should be conducted only after the software is fully developed
	B	Testing should begin as early as possible in the development process
	C	Testing is not necessary if the software meets all requirements
	D	Testing only involves checking if the software works as intended
	E	None of the above
	Correct Answer	B
	Marks	1

18	Question Description	Which command is used for displaying the beginning of a file in Unix?
	A	Ip
	B	Begin
	C	Pr
	D	Head
	E	None of the above
	Correct Answer	D
	Marks	1

19	Question Description	Convert the octal number 25 to its decimal equivalent.
	A	19
	B	21
	C	23
	D	25
	E	None of the above
	Correct Answer	B
	Marks	1

20	Question Description	Which of the following is NOT a concurrency control technique?
	A	Two-phase locking
	B	Timestamp ordering
	C	Deadlock prevention
	D	Foreign key constraint
	E	None of the above
	Correct Answer	D
	Marks	1

21	Question Description	If a coin is flipped twice, what is the probability of getting at least one head?
	A	1/4
	B	1/2
	C	3/4
	D	1
	E	None of the above
	Correct Answer	C
	Marks	1

22	Question Description	What does the term "responsive design" refer to in mobile computing?
	A	Designing applications that respond quickly to user input
	B	Designing applications that adapt to different screen sizes and orientations
	C	Designing applications that require a constant internet connection
	D	Designing applications that are only available offline
	E	None of the above
	Correct Answer	B
	Marks	1

23	Question Description	What is the purpose of the break statement in C?
	A	It skips the current iteration and moves to the next iteration of a loop.
	B	It exits the loop or switch statement immediately.
	C	It continues execution of the next statement after a loop.
	D	It terminates the program execution.
	E	None of the above
	Correct Answer	B
	Marks	1

24	Question Description	Converting a primitive type data into its corresponding wrapper class object instance is called
	A	Boxing
	B	Wrapping
	C	Instantiation
	D	Autoboxing
	E	None of the above
	Correct Answer	D
	Marks	1

25	Question Description	Which of the following statements about Serializable Snapshot Isolation (SSI) is true?
	A	It allows transactions to read uncommitted data.
	B	It guarantees that transactions will not interfere with each other.
	C	It is a form of pessimistic concurrency control.
	D	It requires the locking of all data items.
	E	None of the above
	Correct Answer	B
	Marks	1

26	Question Description	Which among the following statements is correct regarding 'iostream' and 'cstdio' in C++?
	A	'iostream' and 'cstdio' both provide functions for console input and output.
	B	'iostream' and 'cstdio' are interchangeable and can be used interchangeably in any C++ program.
	C	'iostream' is used for console input and output, while 'cstdio' is used for file input and output.
	D	'cstdio' is used for console input and output, while 'iostream' is used for file input and output.
	E	None of the above
	Correct Answer	C
	Marks	1

27	Question Description	Which of the following is an example of unsupervised learning?
	A	Linear regression
	B	K-means clustering
	C	Logistic regression
	D	Decision trees
	E	None of the above
	Correct Answer	B
	Marks	1

28	Question Description	How many punctuation characters are allowed in C language?
	A	29
	B	30
	C	31
	D	32
	E	None of the above
	Correct Answer	A
	Marks	1

29	Question Description	The graph of the function f (x) is symmetrical about the line x = 2, then
	A	f (x + 2) = f (x - 2)
	B	f (2 + x) = f (2 - x)
	C	f (x) = f (- x)
	D	f (x) = - f (- x)
	E	None of the above
	Correct Answer	B
	Marks	1

30	Question Description	In the context of software development, what does the term "technical debt" refer to?
	A	The cost of maintaining legacy systems
	B	The implied cost of additional rework caused by choosing an easy solution now instead of a better approach that would take longer
	C	The financial cost of software licenses
	D	The time spent on documentation
	E	None of the above
	Correct Answer	B
	Marks	1

31	Question Description	Which type of cryptographic key is used for both encryption and decryption in symmetric key cryptography?
	A	Public key
	B	Private key
	C	Secret key
	D	Both A and B
	E	None of the above
	Correct Answer	C
	Marks	1

32	Question Description	Which algorithm is used to find the shortest path in an unweighted graph?
	A	Dijkstra's Algorithm
	B	Kruskal's Algorithm
	C	Breadth-First Search (BFS)
	D	Depth-First Search (DFS)
	E	None of the above
	Correct Answer	C
	Marks	1

33	**Question Description**	A device has been used in the cycle stealing mode of DMA. A word of 4 bytes can be transferred when it is available. The memory cycle time is 40ms and the CPU is idle for 10% of its time. What is the data transfer rate of the device?
	A	1011 bits/sec
	B	11.11 B/sec
	C	12.33 B/sec
	D	2048 B/sec
	E	None of the above
	Correct Answer	B
	Marks	1

34	Question Description	In a paging system, what does a "page fault" indicate?
	A	The system has encountered a corrupt memory page
	B	The requested page is not currently in main memory
	C	The memory page is locked by another process
	D	The page size is mismatched with the hardware specifications
	E	None of the above
	Correct Answer	B
	Marks	1

35	Question Description	Consider the set of all possible five-card poker hands dealt fairly from a standard deck of fifty-two cards. How many atomic events are there in the joint probability distribution?
	A	2, 598, 960
	B	3, 468, 960
	C	3, 958, 590
	D	2, 645, 590
	E	None of the above
	Correct Answer	A
	Marks	1

36	Question Description	In database transactions, what does the "Atomicity" property ensure?
	A	All operations in a transaction are completed successfully or none are executed
	B	Transactions are executed in isolation from one another
	C	Data is consistent before and after the transaction
	D	Changes made by a transaction are permanent
	E	None of the above
	Correct Answer	A
	Marks	1

37	Question Description	Consider an undirected random graph of eight vertices. The probability that there is an edge between a pair of vertices is 1/2. What is the expected number of unordered cycles of length three?
	A	1/8
	B	1
	C	7
	D	8
	E	None of the above
	Correct Answer	C
	Marks	1

38		
Question Description	In which scenario is the Waterfall model most suitable?	
A	When requirements are expected to change frequently	
B	When the project scope is clearly defined and unlikely to change	
C	For projects with unclear user needs	
D	For rapid application development with frequent prototyping	
E	None of the above	
Correct Answer	B	
Marks	1	

39	Question Description	The octal equivalent of 1100101.001010 is _____
	A	624.21
	B	145.12
	C	154.14
	D	145.21
	E	None of the above
	Correct Answer	D
	Marks	1

40	Question Description	Which isolation level allows dirty reads, meaning that a transaction can read data that has been modified but not yet committed by another transaction?
	A	Read Uncommitted
	B	Read Committed
	C	Repeatable Read
	D	Serializable
	E	None of the above
	Correct Answer	A
	Marks	1

41		
Question Description		Which of the following is NOT a characteristic of Agile software development?
A		Comprehensive documentation
B		Iterative and incremental development
C		Customer collaboration over contract negotiation
D		Responding to change over following a plan
E		None of the above
Correct Answer		A
Marks		1

42		
Question Description		What is the role of a Content Management System (CMS) in e-technologies?
A		To manage hardware resources
B		To secure online transactions
C		To facilitate the creation, management, and modification of digital content
D		To analyze user data
E		None of the above
Correct Answer		C
Marks		1

43	Question Description	Which of the following is NOT a type of attribute in an ER diagram?
	A	Simple Attribute
	B	Composite Attribute
	C	Derived Attribute
	D	Functional Attribute
	E	None of the above
	Correct Answer	D
	Marks	1

44	Question Description	In a certain network, the round-trip time (RTT) is measured to be 200 ms. If the bandwidth is 1 Gbps, what is the bandwidth-delay product?
	A	25 KB
	B	25 MB
	C	200 MB
	D	400 MB
	E	None of the above
	Correct Answer	B
	Marks	1

45	Question Description	What is the role of a system bus in computer organization?
	A	It acts as the central processing unit
	B	It serves as the main storage for the computer
	C	It provides a communication pathway between different components
	D	It manages user input and output devices
	E	None of the above
	Correct Answer	C
	Marks	1

46	Question Description	Which of the following best describes the meaning of the existential quantifier (∃) in predicate logic?
	A	It asserts that the property holds for every element in the domain.
	B	It asserts that there exists at least one element in the domain for which the property holds.
	C	It asserts that the property holds for no elements in the domain.
	D	It asserts that the property holds for exactly one element in the domain.
	E	None of the above
	Correct Answer	B
	Marks	1

47	Question Description	What is the purpose of the Apriori algorithm in data mining?
	A	A) To perform regression analysis
	B	B) To find frequent item sets and generate association rules
	C	C) To cluster data points
	D	D) To visualize data
	E	None of the above
	Correct Answer	B
	Marks	1

48	Question Description	What is the cardinality of the power set P(A) if a set A has 3 elements?
	A	3
	B	6
	C	8
	D	9
	E	None of the above
	Correct Answer	C
	Marks	1

49	Question Description	Which of the following layers is responsible for ensuring end-to-end communication and error control in the OSI model?
	A	Transport
	B	Network
	C	Data Link
	D	Physical
	E	None of the above
	Correct Answer	A
	Marks	1

50	Question Description	In the context of software development, what does the term "CI/CD" stand for?
	A	Continuous Improvement/Continuous Development
	B	Continuous Integration/Continuous Deployment
	C	Code Integration/Code Deployment
	D	Centralized Integration/Centralized Deployment
	E	None of the above
	Correct Answer	B
	Marks	1

51	Comprehension	Read the Passage given below and answer the Questions: We have a whole kingdom in which we rule alone, can do what we choose, be wise or ridiculous, harsh or easy, conventional or odd. But directly we step out of that kingdom, our personal liberty of action becomes qualified by other people's liberty. I might like to practice on the trombone from midnight till three in the morning. If I went on to the top of Everest to do it, I could please myself, but if I do it in my bedroom my family will object, and if I do it out in the streets the neighbours will remind me that my liberty to blow the trombone must not interfere with their liberty to sleep in quiet. There are a lot of people in the world, and I have to accommodate my liberty to their liberties. We are all liable to forget this, and unfortunately, we are much more conscious of the imperfections of others in this respect than of our own. A reasonable consideration for the rights or feelings of others is the foundation of social conduct.
	Question Description	It appears from the passage that 'the whole kingdom' implies
	A	one's privilege of liberty without violating that of others'
	B	our own free will and liberty

C	our free and private space to enjoy liberty
D	our personal space in relation to public spaces
E	None of the above
Correct Answer	A
Marks	1

52	**Comprehension**	Read the Passage given below and answer the Questions: We have a whole kingdom in which we rule alone, can do what we choose, be wise or ridiculous, harsh or easy, conventional or odd. But directly we step out of that kingdom, our personal liberty of action becomes qualified by other people's liberty. I might like to practice on the trombone from midnight till three in the morning. If I went on to the top of Everest to do it, I could please myself, but if I do it in my bedroom my family will object, and if I do it out in the streets the neighbours will remind me that my liberty to blow the trombone must not interfere with their liberty to sleep in quiet. There are a lot of people in the world, and I have to accommodate my liberty to their liberties. We are all liable to forget this, and unfortunately, we are much more conscious of the imperfections of others in this respect than of our own. A reasonable consideration for the rights or feelings of others is the foundation of social conduct.
	Question Description	In the context of the passage, the closest synonym for 'accommodate…to' can be ------
	A	adapt to

B	adjust with
C	integrate with
D	modify by
E	None of the above
Correct Answer	B
Marks	1

53	**Comprehension**	Read the Passage given below and answer the Questions: We have a whole kingdom in which we rule alone, can do what we choose, be wise or ridiculous, harsh or easy, conventional or odd. But directly we step out of that kingdom, our personal liberty of action becomes qualified by other people's liberty. I might like to practice on the trombone from midnight till three in the morning. If I went on to the top of Everest to do it, I could please myself, but if I do it in my bedroom my family will object, and if I do it out in the streets the neighbours will remind me that my liberty to blow the trombone must not interfere with their liberty to sleep in quiet. There are a lot of people in the world, and I have to accommodate my liberty to their liberties. We are all liable to forget this, and unfortunately, we are much more conscious of the imperfections of others in this respect than of our own. A reasonable consideration for the rights or feelings of others is the foundation of social conduct.
	Question Description	The phrases "wise or ridiculous, harsh or easy, conventional or odd" in the above passage, describe our -------
	A	kingdom

B	actions
C	Rule
D	behaviour
E	None of the above
Correct Answer	D
Marks	1

54	**Comprehension**	Read the Passage given below and answer the Questions:
		We have a whole kingdom in which we rule alone, can do what we choose, be wise or ridiculous, harsh or easy, conventional or odd. But directly we step out of that kingdom, our personal liberty of action becomes qualified by other people's liberty. I might like to practice on the trombone from midnight till three in the morning. If I went on to the top of Everest to do it, I could please myself, but if I do it in my bedroom my family will object, and if I do it out in the streets the neighbours will remind me that my liberty to blow the trombone must not interfere with their liberty to sleep in quiet. There are a lot of people in the world, and I have to accommodate my liberty to their liberties. We are all liable to forget this, and unfortunately, we are much more conscious of the imperfections of others in this respect than of our own. A reasonable consideration for the rights or feelings of others is the foundation of social conduct.

Question Description	Read the following statement carefully and identify the option that is its closest version with the least change in the meaning of the original "Unfortunately, we are much more conscious of the imperfections of others, in this respect, than of our own"
A	Fortunately, we are not much more conscious of the imperfections of others, in this respect, than of our own
B	Unfortunately, we are much less conscious of the imperfections of others, in this respect, than of our own
C	Unfortunately, we are not any the less conscious of the imperfections of others, in this respect, than of our own
D	Fortunately, we are much more conscious of the imperfections of others, in this respect, than of our own
E	None of the above
Correct Answer	C
Marks	1

Comprehension	Read the Passage given below and answer the Questions:
	We have a whole kingdom in which we rule alone, can do what we choose, be wise or ridiculous, harsh or easy, conventional or odd. But directly we step out of that kingdom, our personal liberty of action becomes qualified by other people's liberty. I might like to practice on the trombone from midnight till three in the morning. If I went on to the top of Everest to do it, I could please myself, but if I do it in my bedroom my family will object, and if I do it out in the streets the neighbours will remind me that my liberty to blow the trombone must not interfere with their liberty to sleep in quiet. There are a lot of people in the world, and I have to accommodate my liberty to their liberties. We are all liable to forget this, and unfortunately, we are much more conscious of the imperfections of others in this respect than of our own. A reasonable consideration for the rights or feelings of others is the foundation of social conduct.
Question Description	The word 'trombone' in the passage refers to ----
A	the tone of voice
B	a musical note
C	the throat bone
D	wind instrument
E	None of the above
Correct Answer	D
Marks	1

55

56	Question Description	Which region's Virgin Coconut Oil recently received the prestigious Geographical Indication (GI) tag?
	A	Kerala
	B	Goa
	C	Lakshadweep
	D	Andaman and Nicobar
	E	None of the above
	Correct Answer	D
	Marks	1

57	Question Description	In which city will Reliance Industries build the world's largest data centre?
	A	Noida
	B	Ahmedabad
	C	Jamnagar
	D	Pune
	E	None of the above
	Correct Answer	C
	Marks	1

58	Question Description	Which company has launched the AI-powered home loan advisor 'KAI'?
	A	L&T
	B	HDFC
	C	ICICI Bank
	D	Bajaj Finserv
	E	None of the above
	Correct Answer	A
	Marks	1

59	Question Description	On which date is World Pulses Day celebrated annually?
	A	February 10
	B	March 15
	C	April 22
	D	January 5
	E	None of the above
	Correct Answer	A
	Marks	1

60	Question Description	What is Zomato's new name after its recent rebranding?
	A	Eternal
	B	Infinite
	C	Zenith
	D	Continuum
	E	None of the above
	Correct Answer	A
	Marks	1

61	Question Description	Which state will host the 39th National Games in 2027?
	A	Assam
	B	Meghalaya
	C	Manipur
	D	Sikkim
	E	None of the above
	Correct Answer	B
	Marks	1

62	Question Description	Which Indian state has denotified three proposed reserve forests to grant land rights to residents?
	A	West Bengal
	B	Odisha
	C	Madhya Pradesh
	D	Assam
	E	None of the above
	Correct Answer	D
	Marks	1

63	Question Description	On which date is National Voters' Day celebrated in India?
	A	January 24
	B	January 25
	C	January 26
	D	January 23
	E	None of the above
	Correct Answer	B
	Marks	1

64	Question Description	How many new wetlands were added to the Ramsar List in India recently?
	A	4
	B	3
	C	5
	D	2
	E	None of the above
	Correct Answer	A
	Marks	1

65	Question Description	Which two Indian cities have joined the Global Wetland Cities list?
	A	Indore & Udaipur
	B	Bhopal & Jaipur
	C	Varanasi & Mysuru
	D	Surat & Ahmedabad
	E	None of the above
	Correct Answer	A
	Marks	1

66	Question Description	Statement: "The delay in the project is due to a shortage of materials." Judgment:
	A	The shortage of materials is the sole cause of the delay.
	B	There could be other factors contributing to the delay.
	C	The delay is not due to the shortage of materials.
	D	The shortage of materials has nothing to do with the delay.
	E	None of the above
	Correct Answer	B
	Marks	1

67	**Question Description**	Which word matches the following definition: "A place where ships dock."
	A	Harbor
	B	Wharf
	C	Marina
	D	Dock
	E	None of the above
	Correct Answer	A
	Marks	1

68	**Question Description**	Book is to reading as fork is to:
	A	Eating
	B	Writing
	C	Sleeping
	D	Playing
	E	None of the above
	Correct Answer	A
	Marks	1

69	Question Description	In the series, find the missing term: A, D, G, J, __, P
	A	K
	B	L
	C	N
	D	O
	E	None of the above
	Correct Answer	B
	Marks	1

70	Question Description	Which one of the following is the odd one out?
	A	Beethoven
	B	Mozart
	C	Chopin
	D	Rembrandt
	E	None of the above
	Correct Answer	D
	Marks	1

71	Question Description	Find the next number in the series: 3, 10, 22, 41, 68, ____
	A	99
	B	100
	C	104
	D	109
	E	None of the above
	Correct Answer	B
	Marks	1

72	Question Description	Which of the following is the odd one out?
	A	Dolphin
	B	Whale
	C	Shark
	D	Seal
	E	None of the above
	Correct Answer	C
	Marks	1

73	Question Description	Statement: "The company has launched a new marketing campaign." Conclusion: 1. The company wants to increase its sales. 2. The company is facing financial issues.
	A	Only conclusion 1 is valid.
	B	Only conclusion 2 is valid.
	C	Both conclusions are valid.
	D	Neither conclusion is valid
	E	None of the above
	Correct Answer	A
	Marks	1

74	Question Description	Which is an essential part of a computer?
	A	Monitor
	B	Keyboard
	C	Processor
	D	Printer
	E	None of the above
	Correct Answer	C
	Marks	1

75	Question Description	In an artificial language, if "FAR" means "cat," "MAR" means "dog," and "BAR" means "bird," what does "FAM" mean?
	A	Bird
	B	Cat
	C	Dog
	D	Unknown
	E	None of the above
	Correct Answer	B
	Marks	1