School of Planning and Architecture, Bhopal
Written Test for the Post of System Administrator
Date of Examination: 29.11.2023

Max. Marks. 100   **Duration: 2 hours**

Name of the Candidate: **Roll no. of the candidate:**

_____   _____

1. Mark 'Cross' (X) for your selected option on the answer sheet provided along with the Question Paper.
2. If more than one option is marked for a question using ('Cross' (X)), that question/answer will not be considered for evaluation.
3. Ensure that the symbol 'Cross' (X) does not cross the box.
4. Write 'Cross' (X) legibly and clearly.
5. No other symbol apart from 'Cross' (X) shall be used for indicating your answer.
6. Your answer shall not be considered for evaluation if any other symbol apart from 'Cross' (X) is used.
7. Do not make any mark/ drawing or markings on the question/ answer sheet.
8. No candidate shall be permitted to leave the Examination Room/ Hall before the end of the examination.
9. Question/ Answer sheet will not be given back once the candidate submits the sheet.
10. There will be no negative marking for wrong answers.
11. Use only Black/ Blue Ball Point pen(s) for marking your option.
12. Mobile phones, electronic gadgets/materials are not allowed inside the examination Hall.
13. A separate sheet (page no.14) has been provided for rough work. No rough work is allowed on the question/ answer sheet or any other paper, other than the allocated space.
14. Furnish all information required on the question booklet such as Roll Number, Name of the candidate and signature, failing which the question booklet will not be evaluated. The candidate shall write only their Roll Number on the Answer Sheet.
15. Each question carries 1 mark.
16. A candidate must fill the number of boxes given at the end of the Answer Sheet.

Total no. pages: 14 + Answer Sheet   Questions attempted out of 100

Signature of the candidate

Signature of the Invigilator

PART 'A'

1. Select the word from the given options that best describe the same meaning as the given word.

   PARSIMONIOUS
   A. Cruel   C. Prodigal
   B. Haughty   D. Miserly

2. Select the word from the given options that best describe the meaning opposite to the given word.

   BRASH
   A. Polite   C. Arrogant
   B. Handsome   D. Kind

3. Select the appropriate preposition to fill the blank in the given sentence

   The old lady was sitting _____ an armchair.
   A. On   C. Above
   B. In   D. With

4. Select the option that best describe the meaning of the given Idiom

   Man of Letters
   A. A scholar   C. A man who helps in writing letters
   B. A postman   D. A book of letters

5. Select the appropriate verb form to fill the blank in the given sentence
   The accident took place when she _____ the road.

   A. Had crossed   C. is crossing
   B. crossed   D. was crossing

6. Which sentence contains a subordinate clause?

   A. She went to the store   C. He read a book

   B. Although it rained, they went for a walk   D. The cat meowed loudly

7. Select the sentence from the given options that best describe the meaning of the given sentence.
   Open the Window
   A. The Window is open   C. The Window is opened
   B. Let the Window open   D. Let the Window be opened

8. Select the option that best describe the meaning of the given Phrase
   Nip in the bud
   A. The opening of the bud   C. Remove a bud
   B. Stop something at an early stage   D. Taking a work without delay

2

9. The cost of 16 pockets of salt, each weighing 900 grams is Rs.28/-, what will be the cost of 27 pockets, if each pocket weighs 1 kg?

A. 52.50

C. 58.50

B. 56.00

D. 64.75

10. Which of the following options is correct for the following statement?

"If Mohan would have called me, I would have picked him from the airport".

A. If Mohan had called me, I would have picked him from the airport.
B. If Mohan will call me, I would have picked him from the airport.
C. If Mohan had called me, I would have picked him up at the airport.
D. If Mohan might have called me, I must have picked him from the airport.

11. A girl walks 12 kilometers from her house towards east, turns left and walks 28 kilometers, again turns left and walks 39 kilometers. Again she turns right and walks 8 kilometers to reach her office. In which direction is the office of the girl from her house?

A. Southwest

C. South

B. Northwest

D. Southeast

12. If one third of one - fourth of a number is 15, then three tenth of that number is

A. 35

C. 45

B. 36

D. 54

13. **Statement:** Only good speakers are invited for a conference. No one without good knowledge can be a good speaker.
Conclusions:
I. *Those speakers who do not have good knowledge are not invited for the conference.*
II. *All speakers who are invited for the conference have good knowledge in their domain.*

A. Only conclusion 'I' is true
B. Only conclusion 'II' is true

C. Both conclusion 'I' and 'II' are true
D. Neither conclusions 'I' nor 'II' are true

14. A boat travels upstream. If the boat of upstream is decreased by 40% then it is equal to the speed of the current and speed of the boat in still water is given as 240 kilometer per hour. Then upstream speed of the boat (in kilometer per hour) will be

A. 120

C. 150

B. 180

D. 210

15. A _____ is a group of three people who share power for public administration

A. Trio

C. Trivet

B. Tritium

D. Triumvirate

16. The smallest number of five digits exactly divisible by 476 is

    A. 10,000　　　　　　　　　　　　C. 10,476

    B. 10,472　　　　　　　　　　　　D. 47,600

17. How many three digit numbers which are divisible by 7 can be formed using the first three prime numbers (without repetition)?

    A. 5　　　　　　　　　　　　　　C. 1

    B. 3　　　　　　　　　　　　　　D. 4

18.　$3 \times 0.3 \times 0.03 \times 0.003 \times 30 = ?$
    A. 0.0000243　　　　　　　　　　C. 0.00243
    B. 0.000243　　　　　　　　　　　D. 0.0243

19. The next number in the series 5, 18, 34, 54, 79, 110------ is,
    A. 148　　　　　　　　　　　　　C. 168

    B. 158　　　　　　　　　　　　　D. 178

20. K is daughter in law of G. M is father of L, who is daughter in law of P. H is brother in law of G and only son of F. T is grandson of F. H is unmarried. G is male. M has two children. How is K related to L?

    A. Daughter　　　　　　　　　　　C. Daughter in law

    B. Mother in law　　　　　　　　　D. Syster

21. The sum of two numbers is 40 and their difference is 4. The ratio of the numbers is

    A. 11:9　　　　　　　　　　　　　C. 21:19

    B. 11:18　　　　　　　　　　　　D. 22:9

22. The product of two numbers is 45 and the sum of their squares is 106. The numbers are

    A. 3 and 5　　　　　　　　　　　C. 5 and 19

    B. 5 and 9　　　　　　　　　　　D. 45 and 1

23. Perimeter of rectangle is equal to the perimeter of the square whose area is 400 cm^2 and the length of rectangle is 40% more than the side of a square then the area of rectangle is

    A. 248 cm^2　　　　　　　　　　C. 284 cm^2

    B. 336 cm^2　　　　　　　　　　D. 363 cm^2

24. Which among the following is not a synonymous of MISDEMEANOUR?

    A. Misconduct　　　　　　　　　　C. Offence

    B. Infringement　　　　　　　　　D. Benevolence

25. A girl introduces a boy as the son of the daughter of the father of her uncle, the boy is the girl's

    A. Nephew   C. Brother

    B. Uncle   D. Son in law

26. World Asthma Day is celebrated on

    A. April 8   C. July 6

    B. May 2   D. August 9

27. 'The hosts were happy _____ our visit _____ their home'

    A. on, to   C. with, in

    B. for, in   D. with, to

28. Arrange the following words in a meaningful order

    1. Sing   *2. Think*   *3. Appreciation*   *4. Compose*   *5. Money*

    A. 31425   C. 45132
    B. 42315   D. 24135

29. 15, 22, 29, 36, ?, 50, 57

    A. 43   C. 40

    B. 42   D. 44

30. QPO, NML, KJI, _____, EDC

    A. GHI   C. JKL

    B. CAB   D. HGF

31. In a certain code, MEADOWS is written as RVNENFB, How would PRIESTS be written in that code?

    A. RSRFQSJ   C. RSRRQSJ

    B. RSRDQSJ   D. RSRFQJS

32. First Woman to act as a match referee for men's international cricket is

    A. G. Sarva Lakshmi   C. K. Rajeswari

    B. Mithali Raj   D. Avanthika Pandey

33. In context of Mauryan administration, who was the chief supervisor of the collection of revenue from the whole kingdom?

    A. Samaharta   C. Karmantika

    B. Sannidhata   D. Antapal

34. e-Gram Swaraj Portal was launched by the Hon'ble Prime Minister on

    A. March 16, 2020   C. May 20, 2020

    B. April 24, 2020   D. June 12, 2020

35. Which among the following committee recommended for the separation of railway budget from general budget?

    A. Mcmohan Committee   C. Mcmarthy committee

    B. Morley Minto Committee   D. Acworth Committee

36. Which of the following regions separate the Great Plains of Northern India from the plateaus and coastal plains of the Deccan?

    A. Western Arid Plains   C. Central Highlands

    B. Eastern Himalayas   D. Western Himalayas

37. How many types of writs are there in the Indian Constitution?

    A. Four Types   C. Ten Types

    B. Seven Types   D. None of the above

38. Who is the Chairman of NABARD?

    A. C. Govindarajulu   C. Shaji K V

    B. Pradeep Johsi   D. C. Rangarajan

39. 'Dadasaheb Phalke Lifetime Achievement Award' was recently conferred to which actor?

    A. Waheeda Rehman   C. Madhubala

    B. Sridevi   D. Shabana Azmi

40. Which Union Ministry launched the 'Green Energy Open Access Portal'

    A. Ministry of Environment, Forest and Climate Change

    B. Ministry of Power and New and Renewable Energy

    C. Ministry of Home Affairs

    D. Ministry Rural Development

PART 'B'

41. What is not a good practice for user administration?
    - A. Isolating a system after a compromise
    - B. Perform random auditing procedures
    - C. Granting privileges on a per host basis
    - D. Using telnet and FTP for remote access

42. Which of the following is known as a set of entities of the same type that shares same properties, or attributes?
    - A. Relation set
    - B. Tuples
    - C. Entity set
    - D. Entity relation model

43. Which of the following is NOT a tool available in windows server 2012?
    - A. Active Directory Administrative Center
    - B. Server Manager
    - C. Computer Management
    - D. System Configuration

44. For real operating systems, interrupt latency should be.................
    - A. Zero
    - B. Minimal
    - C. Maximum
    - D. Dependent on the scheduling

45. The dialogue control and token management are responsible for?
    - A. Session layers
    - B. Datalink Layer
    - C. Transport layer
    - D. Network layer

46. Identify among the following which belongs to class A.
    - A. 121.12.12.248
    - B. 128.12.12.248
    - C. 129.12.12.248
    - D. 130.12.12.248

47. In FTP, there are three types of .... Stream, block and compressed.
    - A. File types
    - B. Data types
    - C. Transmission modes
    - D. None of the above.

48. Cloud computing is a concept that involves pooling physical resources and offering them as which sort of resource?
    - A. Cloud
    - B. Real
    - C. Virtual
    - D. None of the mentioned

49. Which of the following is the correct syntax for an if-Then-Else statement in VBA?
    - A. If condition Then statement Else statement
    - B. If condition Then statement Elseif condition Then statement Else statement
    - C. If condition statement Elseif condition statement Else statement
    - D. If condition Then the statement

50. Which description is appropriate among the following for E-Governance?
    - A. To engage, enable empower the citizen
    - B. To provide fair and unbiased to the citizen
    - C. To provide technology driven governance
    - D. To ensure people's faith in E-commerce applications

51. Which of the following is true about "right to rectification" under GDPR?
    A. Data subjects can correct inaccurate data about themselves
    B. Data subjects cannot change
    C. Data subjects have the right to obtain a copy of collective personal data
    D. None of the above mentioned

52. Identify the Risk factors which are associated with electronic payment systems.
    A. Fraudulent use of Credit Cards
    B. Sending Credit Card details over internet
    C. Remote storage of Credit Card details
    D. All of the above

53. The term FTP stands for
    A. File Transfer Program
    B. File Transmission Protocol
    C. File Transfer Protocol
    D. File Transfer Protection

54. Which layer is used for wireless connection IOT devices?
    A. Application layer
    B. Network layer
    C. Data layer
    D. Transport layer

55. Which of the following accounts is used to provide access a workgroup computer -
    A. Local Account
    B. Domain Account
    C. Azure AD
    D. Microsoft Account

56. How many network and nodes per network are allowed by the class "B" network?
    A. 127 networks and 16,777,216 nodes per network
    B. 16,384 networks and 65,534 nodes per network
    C. 2,097,152 networks and 254 nodes per network
    D. 128 networks and 16,777,216 nodes per network

57. The maximum length (in bytes) of an IPv4 datagram is?
    A. 32
    B. 1024
    C. 65535
    D. 512

58. Which of the following statement is correct about the cipher in cryptography?
    A. It is a method for performing encryption and decryption
    B. It is used to establish the network connection
    C. It is a message event
    D. All of the above

59. It can be a software program or a hardware device that filters all data packets coming through the internet, a network, etc. It is known as the ....
    A. Antivirus
    B. Firewall
    C. Filter
    D. Microsoft Account

60. Which one of the following given statements possibly contains the error?
    A. select * from emp where empid = 216;
    B. select empid from emp where empid = 136;
    C. select empid from emp;
    D. select empid where empid = 109 and Lastname = 'Sonat';

61. Which data structure is used in Hierarchical model records?
    A. Graph
    B. Tree
    C. Linked list
    D. Stacks

62. The JSON syntax is a subset of the .... Syntax.
    A. Ajax
    B. Php
    C. HTML
    D. JavaScript

63. What is the purpose of VBA in Microsoft Office applications?
    A. To create visual effects in documents
    B. To automate tasks and create macros
    C. To design user interfaces
    D. To create web applications

64. Which of the following is not a web server?
    A. Apache tomcat
    B. BlueGriffon
    C. Jetty
    D. Tornado

65. Typically, the TCP port used by SMTP is ....
    A. 25
    B. 35
    C. 50
    D. 15

66. In blockchain .... Tree stores all the transactions in the block by producing a digital fingerprint of the entire set of transactions.
    A. Merkle
    B. Binary
    C. AVL
    D. Red Black

67. What is the purpose of Option Explicit in VBA?
    A. To force the declaration of all variables
    B. To enable debugging mode
    C. To define a function
    D. To format cells

68. What kind of transmission medium is most appropriate to carry in a computer network that is exposed to electrical interferences?

    A. Unshielded twisted pair
    B. Optical fiber
    C. Coaxial cable
    D. Microwave

69. What does Light Directory Access Protocol (LDAP) doesn't store?
    A. Users
    B. Address
    C. Passwords
    D. Security Key

70. Which one of the following is NOT a feature of cloud computing
    A. Reliability
    B. Agility
    C. Scalability
    D. Decentralization

71. Which of the following VBA windows shows the code of the active object?
   A. Explorer window
   B. Properties window
   C. Immediate window
   D. Code window

72. Which of the following is popular for applications such as storage of log files in database management system since it offers the best write performance?
   A. RAID level 0
   B. RAID level 1
   C. RAID level 2
   D. RAID level 3

73. Which of the following assertions is FALSE about the internet protocol (IP)
   A. It is possible for a computer to have multiple IP address
   B. IP packets from the same source to the same destination can take different routes in the network
   C. IP ensures that a packet is forwarded if it is unable to reach its destination within a given number of hopes
   D. The packet source cannot set the route of an ongoing packets; the route is determined only by the routing tables in the routers on the way

74. The attack that uses a fraudulent server with a relay address is:
   A. NetBIOS
   B. SMB
   C. NLTM
   D. MITM

75. Why is the proxy server used by the hacker?
   A. For obtaining the remote access connection
   B. For hiding the malicious activity on the network
   C. For creating the ghost server on the network
   D. For creating the strong connection on the target

76. Which character is to be suffixed for long data type in VBA?
   A. &
   B. !
   C. #
   D. @

77. Which is a proper object hierarchy in VBA?
   A. Worksheet, Workbook, Applications, Range
   B. Range, Application, Worksheet, Workbook
   C. Range, Worksheet, Workbook, Application
   D. Application, Workbook, Worksheet, Range

78. What will be the output of the following JavaScript code
   ```
   <p id = "demo"></p>
   <script>
   Var js =10;
   Js*=5;
   Document.getElementById("demo").innerHTML= js;
   </script>
   ```
   A. 10
   B. 50
   C. 5
   D. Error

79. What is the default FTP port for secure connections (FTPS)?
   A. 20
   B. 21
   C. 22
   D. 990

80. Which of the file system is commonly used in Linux operating systems?
   A. NTFS
   B. FAT32
   C. Ext4
   D. HFS+

81. What is the purpose of Windows Registry?
   A. To store user files and documents
   B. To mange device drivers
   C. To store system configuration settings
   D. To install and update software

82. Which feature of windows is used to place a sound into a word document?
   A. Task switching
   B. Clipboard
   C. Paste
   D. OLE

83. Start Frame Delimiter (SFD) in an Ethernet frame is always set as
   A. 00000000
   B. 10101010
   C. 11111111
   D. 10101011

84. What is the primary purpose of homomorphic encryption scheme?
   A. To allow computation on encrypted data without decryption
   B. To provide an extra layer of encryption for sensitive data
   C. To ensure that encryption keys remain the same overtime
   D. To encrypt data using multiple algorithms simultaneously

85. What is the main goal of a vulnerability scan in a vulnerability assessment?
   A. Authenticating usage through biometrics
   B. Implementing access control policies
   C. Encrypting sensitive data
   D. Identifying and quantifying vulnerabilities in a system

86. Which protocol is commonly used for retrieving emails from a mail server?
   A. IMAP
   B. SMTP
   C. FTP
   D. POP3

87. In Bash scripting, what does the symbol "$$" represent?
   A. The process ID of the current script
   B. The number of command-line arguments
   C. The home directory of the current user
   D. The exit status of the previous command

88. What is the primary objective of government IT policies related to open data?
   A. Restricting access to government data for security reasons
   B. Encouraging the privatization of government data resources
   C. Protecting government data from unauthorized data
   D. Promoting transparency, accountability and innovation through the release of government data

89. What does the term "DevOps" refers to in the field of IT?

    A. A set of practices that combine software development and IT operations to shorten the software development lifecycle
    B. A security protocol for secure network communications
    C. A database management system
    D. A programming language commonly used for web development

90. Which of the following statements are true?
I. Shortest remaining time first scheduling may cause starvation
II. Preemptive scheduling may cause starvation
III. Round robin is better than FCFS in terms of response time
    A. I only
    B. I and III only
    C. II and III only
    D. I, II and III

91. What is swap space in the disk used for?
    A. Saving temporary HTML pages
    B. Saving process data
    C. Storing the super-block
    D. Storing device drivers

92. Which of the following tools are used for creating and sharing Mind-Maps?
    (i) X-Mind, (ii) Mindomo, (iii) Coggle, (iv) Mindmester, (v) Miro
    Choose the most appropriate alternative from the following.
    A. (i), (ii) and (V) only
    B. (ii), (iii) and (iv) only
    C. (iii) and (iv) only
    D. (i), (ii), (iii), (iv) and (v) only

93. When was digital India program started?
    A. 2013
    B. 2014
    C. 2015
    D. 2016

94. The principle that internet service provider (ISP) and government regulators (GRs) should treat all data on the internet as of the same importance and not discriminate of change differently by user, content, website, etc. is called as:
    A. Digital equality
    B. Net neutrality
    C. Digital democracy
    D. Net equality

95. Which of the following foreign key constraints specify that the deletion fails with an error?
    A. NO ACTION
    B. CASCADE
    C. SET NULL
    D. NOT NULL

96. Consider the following log sequence of two transactions on blank account, with initial balance 12000, that transfer 2000 to a mortgage payment and then apply a 5% interest.
    1. T1 start
    2. T1 B old=1200 new=10000
    3. T1 M old=0 new=2000
    4. T1 commit
    5. T2 start
    6. T2 B old=10000 new=10500
    7. T2 commit

Suppose the database system crashes just before log record 7 is written. When the system is restarted, which one statement is true of the recovery procedure?
   A. We must redo log record 6 to set B to 10500
   B. We must undo log record 6 to set B to 10000 and then redo log records 2 and 3
   C. We need not redo log records 2 and 3 because transaction T1 has committed
   D. We can apply redo and undo operations in arbitrary order because they are idempotent

97. Which protocol is mostly used in wi-fi security?
   A. WPA   C. WPA2
   B. WCP   D. WPS

98. In the IT Act 2000, which section deals with the punishment for cyber terrorism?
   A. 45 (F)   C. 66 (F)
   B. 66 (A)   D. 39 (B)

99. One who gains unauthorized access, destroys the vital data, denies legitimate user's service or causes problems to their target is called
   A. Programmer   C. Cracker
   B. Database administrator   D. White Hat Hacker

100. The coming together of technologies such as (i) computing, (ii) media, and (iii) telecommunications, in digital environment is technically known as:
   A. Merger   C. Amalgamation
   B. Convergance   D. Integration

ROLL NO. OF THE CANDIDATE:

Q.			Q.			Q.			Q.		
1		D	26	B		51	A		76	A	
2	A		27		D	52		D	77		D
3	B		28		D	53	C		78	B	
4	A		29	A		54	C		79		D
5		D	30		D	55	A		80	C	
6	B		31	A		56	B		81	C	
7		D	32	A		57	C		82		D
8	B		33	A		58	A		83		D
9	A		34	B		59	B		84	A	
10	A		35		D	60		D	85		D
11	B		36	C		61	B		86	A	D
12		D	37		D	62		D	87	A	D
13	C		38	C		63	B		88		D
14	C		39	A		64	B		89	A	
15		D	40	B		65	A		90		D
16	B		41		D	66	A		91	B	
17	C		42	C		67	A		92		D
18	C		43		D	68	B		93	C	
19	A		44	B		69	B		94	B	
20	C		45		D	70		D	95	A	
21	A		46	A		71		D	96	B	
22	B		47	C		72	A		97	C	
23	B		48	C		73		D	98	C	
24		D	49	B		74		D	99	C	
25	C		50	A		75	B		100	B	

Total questions attempted by the candidates: _____

Number of answers marked more than one option _____

I hereby declare that the information given above is correct.

Signature of the candidate _____   Signature of the Invigilator_____