

# MIZORAM PUBLIC SERVICE COMMISSION

## TECHNICAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF COMPUTER OPERATOR (CONTRACT) UNDER MIZORAM INFORMATION COMMISSION, MARCH, 2016

### PAPER - II

Time Allowed : 2 hours

Full Marks : 150

*Attempt all questions.*

*All questions carry equal marks of 2 each.*

1. In OSI network architecture, the routing is performed by
  - (a) network layer
  - (b) data link layer
  - (c) transport layer
  - (d) session layer
2. Which color coding of cable is used to connect similar devices?
  - (a) Straight cable
  - (b) Cross over cable
  - (c) Serial cable
  - (d) None of these
3. Which of the following is an advantage to using fiber optics data transmission?
  - (a) Resistance to data theft
  - (b) Fast data transmission rate
  - (c) Low noise level
  - (d) All of these
4. An effective way to prevent attenuation is
  - (a) Adding repeaters or amplifiers to a circuit
  - (b) Shorting a circuit
  - (c) Half duplex
  - (d) Shielding wires
5. Which address identifies a process on a host?
  - (a) physical address
  - (b) logical address
  - (c) port address
  - (d) specific address
6. Transmission data rate is decided by
  - (a) network layer
  - (b) physical layer
  - (c) data link layer
  - (d) transport layer
7. User datagram protocol is called connectionless because
  - (a) all UDP packets are treated independently by transport layer
  - (b) it sends data as a stream of related packets
  - (c) both (a) and (b)
  - (d) none of these
8. In IPv4, what should be the flag value to indicate the last fragment?
  - (a) 0
  - (b) 1
  - (c) TTL value
  - (d) None of these
9. In the architecture of a database system, external level is the
  - (a) Physical level
  - (b) Logical level
  - (c) Conceptual level
  - (d) View level

10. In a Hierarchical model records are organised as
  - (a) Graph
  - (b) List
  - (c) Links
  - (d) Tree
11. The language used in application programs to request data from the DBMS is referred to as the
  - (a) DML
  - (b) DDL
  - (c) VDL
  - (d) SDL
12. Related fields in a database are grouped to form a
  - (a) Data file
  - (b) Data record
  - (c) Menu
  - (d) Bank
13. An advantage of the database management approach is
  - (a) Data is dependent on programs
  - (b) Data redundancy increases
  - (c) Data is integrated and can be accessed by multiple programs
  - (d) None of these
14. E-R model uses this symbol to represent weak entity set?
  - (a) Dotted rectangle
  - (b) Diamond
  - (c) Doubly outlined rectangle
  - (d) None of these
15. The RDBMS terminology for a row is
  - (a) tuple
  - (b) relation
  - (c) attribute
  - (d) degree
16. Which are the two ways in which entities can participate in a relationship?
  - (a) Passive and Active
  - (b) Total and Partial
  - (c) Simple and Complex
  - (d) All of these
17. A set of possible data values is called
  - (a) Attribute
  - (b) Degree
  - (c) Tuple
  - (d) Domain
18. A primary key combined with a foreign key creates
  - (a) Parent-Child relationship between the tables that connect them
  - (b) Many-to-many relationship between the tables that connect them
  - (c) Network model between the tables that connect them
  - (d) None of these
19. Business rules can be represented in the database through:
  - (a) associations (or relationships)
  - (b) attributes
  - (c) properties
  - (d) secondary keys
20. The purpose of an n-ary association is:
  - (a) To capture a parent-child relationship
  - (b) To deal with one-to-many relationships
  - (c) To deal with relationships that involve more than two tables
  - (d) To represent an inheritance relationship
21. To include integrity constraint in an existing relation use :
  - (a) Create table
  - (b) Modify table
  - (c) Alter table
  - (d) Drop table

22. Select emp\_name from department where dept\_name like ' \_\_\_\_\_ Computer Science';  
In the SQL given above, which of the following has to be added into the blank to select the dept\_name which has Computer Science as its ending string?
- (a) % (b) \_  
(c) || (d) \$
23. In a database structure, the basic data type char(n) is a \_\_\_\_\_ length character string and varchar(n) is \_\_\_\_\_ length character.
- (a) Fixed, equal (b) Equal, variable  
(c) Fixed, variable (d) Variable, equal
24. For a weak entity set to be meaningful, it must be associated with another entity set, called the
- (a) Identifying set (b) Owner set  
(c) Neighbour set (d) Strong entity set
25. A \_\_\_\_\_ integrity constraint requires that the values appearing in specified attributes of any tuple in the referencing relation also appear in specified attributes of at least one tuple in the referenced relation.
- (a) Referential (b) Referencing  
(c) Specific (d) Primary
26. Indicate roles in E-R diagrams by labelling the lines that connect \_\_\_\_\_ to \_\_\_\_\_.
- (a) Diamond, diamond (b) Rectangle, diamond  
(c) Rectangle, rectangle (d) Diamond, rectangle
27. How many tables may be included with a join?
- (a) One (b) Two  
(c) Three (d) All of these
28. What are the correct features of a distributed database?
- (a) Is always connected to the internet  
(b) Always requires more than three machines  
(c) Users see the data in one global schema  
(d) Have to specify the physical location of the data when an update is done
29. Delete from r where P;  
The above command
- (a) Deletes a particular tuple from the relation (b) Deletes the relation  
(c) Clears all entries from the relation (d) All of these
30. Update instructor \_\_\_\_\_ salary= salary \* 1.05;  
Fill in with correct keyword to update the instructor relation.
- (a) Where (b) Set  
(c) In (d) Select
31. The entity set person is classified as student and employee. This process is called
- (a) Generalisation (b) Specialisation  
(c) Inheritance (d) Constraint generalisation
32. Functional dependencies are a generalisation of
- (a) Key dependencies (b) Relation dependencies  
(c) Database dependencies (d) None of these

33. There are similarities between the instructor entity set and the secretary entity set in the sense that they have several attributes that are conceptually the same across the two entity sets: namely, the identifier, name, and salary attributes. This process is called
- (a) Commonality
  - (b) Specialisation
  - (c) Generalisation
  - (d) Similarity
34. HTML is a
- (a) Programming Language
  - (b) Scripting Language
  - (c) Web Browser
  - (d) Network Protocol
35. A webpage displays a picture. What tag was used to display that picture?
- (a) picture
  - (b) image
  - (c) img
  - (d) src
36. Which tag allows you to add a row in a table?
- (a) <td> and </td>
  - (b) <cr> and </cr>
  - (c) <th> and </th>
  - (d) <tr> and </tr>
37. Cascading Style Sheets define style and appearance using:
- (a) functions with parameters and return values
  - (b) rules with selectors, properties and their values
  - (c) techniques with block and inline elements
  - (d) heuristics with rules and maps
38. JavaScript is a programming language that:
- (a) is strict about variable type and declaration
  - (b) is a web-specific version of Java
  - (c) supports event-driven programming
  - (d) is executed on the server
39. How can you make a bulleted list?
- (a) <list>
  - (b) <nl>
  - (c) <ul>
  - (d) <ol>
40. What is the correct HTML for making a hyperlink?
- (a) <a href="http:// abc.com">abc</a>
  - (b) <a name="http://abc.com">abc</a>
  - (c) <http://abc.com</a>
  - (d) url="http://abc.com">
41. What is the correct HTML for adding a background color?
- (a) <body color="yellow">
  - (b) <body bgcolor="yellow">
  - (c) <background>yellow</background>
  - (d) <body background="yellow">
42. The HTML <div> element is:
- (a) Inline element
  - (b) Outline element
  - (c) Block level element
  - (d) None of these
43. Which attribute is used to name an element uniquely?
- (a) class
  - (b) id
  - (c) dot
  - (d) all of these
44. The way the browser displays the object can be modified by
- (a) attributes
  - (b) parameters
  - (c) modifiers
  - (d) None of these

45. Which of the following is an attribute of <Table> tag?
- (a) SRC (b) LINK  
(c) CELLPADDING (d) BOLD
46. Choose the correct HTML to left-align the content inside a table cell
- (a) <td valign="left"> (b) <tdleft>  
(c) <td leftalign> (d) <td align="left">
47. Which file controls how your frames will appear?
- (a) Frameset (b) Master Document  
(c) Template (d) Timeline
48. \_\_\_\_\_ provides the largest text.
- (a) H6 (b) 24  
(c) H1 (d) Bold
49. What is the use of alt attribute in HTML?
- (a) alt attribute specifies an alternate text for an image  
(b) alt attribute specifies an alternate link for an image  
(c) alt attribute specifies an alternate image for an image  
(d) alt attribute specifies an alternate source for an image
50. The attribute of the <form> tag?
- (a) Method (b) Action  
(c) Both (a) and (b) (d) None of these
51. In event-driven programming an event is generated by:
- (a) the system (b) a user's action  
(c) the program itself (d) all of these
52. HTML is a subset of
- (a) SGML (b) SGMT  
(c) SGMD (d) None of these
53. Which function should be used to validate that input is not a string before performing arithmetic operations?
- (a) IsArithmetic (b) IsNotString  
(c) IsNumeric (d) IsString
54. The stateless HTTP protocol refers to web pages created:
- (a) on a web server (b) without information from a database  
(c) without knowledge of previous web pages (d) before a request from a client
55. Which client-side technique can be disabled by the end-user?
- (a) Cookies (b) Query string  
(c) View state (d) Both (a) and (b)
56. A Session variable is created:
- (a) when the application is first placed on a web server  
(b) when the web server is first started  
(c) when the first client requests a URL resource  
(d) every time a new client interacts with the web application

57. What is the correct syntax for referring to an external script called "abc.js"?
- (a) `<script href="abc.js">` (b) `<script name="abc.js">`  
(c) `<script src="abc.js">` (d) None of these
58. JavaScript is interpreted by
- (a) Client (b) Server  
(c) Object (d) None of these
59. The purpose of a resume is to
- (a) Establish a candidate's qualifications for a position - in order to secure an interview  
(b) Establish a candidate's qualifications for a position - in order to secure employment  
(c) Establish a candidate's qualifications for a position - in order to eliminate the competition  
(d) None of these
60. When writing resume, the main focus should be on
- (a) Who will be reading the resume  
(b) Presenting my best skills, experiences and achievements in priority  
(c) The readability and visual presentation of my document  
(d) None of these
61. Interview differs from other conversation in that they:
- (a) Are held for a very specific reason (b) Aim at a particular outcome  
(c) Are usually recorded (d) All of these
62. In an organisation, the two basic types of correspondence are
- (a) External and international (b) International and regional  
(c) Internal and external (d) Internal and regional
63. When considering resume, employers
- (a) look for what the company can provide for the applicant.  
(b) spend at least ½ hour reviewing each resume.  
(c) look for resume that look good, are easy to read, and provide the information an employer needs to assess an applicant's qualifications.  
(d) ignore mechanical flaws.
64. Common mistakes people make in job interviews include
- (a) knowing little about the company or the role they would play at the company.  
(b) having little idea of how their education prepares them for work.  
(c) having only vague ideas about how they could benefit the employer.  
(d) All of these.
65. If asked a point blank question such as: Are you creative? Are you analytical? Can you work under pressure? etc. What is the best way to answer?
- (a) Answer yes or no (b) Answer yes and give a specific example  
(c) Answer yes and give an explanation (d) None of these

**Directions to solve (Questions 66 - 68) :** Study carefully the following series of numbers. Choose the correct number which would go next in the series.

66. 108, 100, 92, 90, 82, 74, ...

(a) 65

(b) 66

(c) 72

(d) 76

67. 102, 204, 408, 816, ...

(a) 1532

(b) 1432

(c) 1632

(d) 1832

68. Which one is equal to  $\sqrt{16}$ ?

(a)  $\sqrt{2}$

(b)  $2^2$

(c)  $4^3$

(d)  $4^2$

**Directions to solve (Questions 69 - 71) :** in this section, you are asked what should be done or what is required in a given situation. You are to choose the best answer available, or what most generally applies to the question.

69. What does it mean to say "Man does not live by bread alone"?

(a) Having too much of any one food is not good.

(b) There are other important things in life besides material wealth.

(c) Variety is important in one's life.

(d) Man should work in order to get his bread.

70. A substitute for "one who likes to spend time with others" in one word can be

(a) Introvert

(b) Extraordinary

(c) Extrovert

(d) Commoner

71. What is the opposite word of coward?

(a) Weak

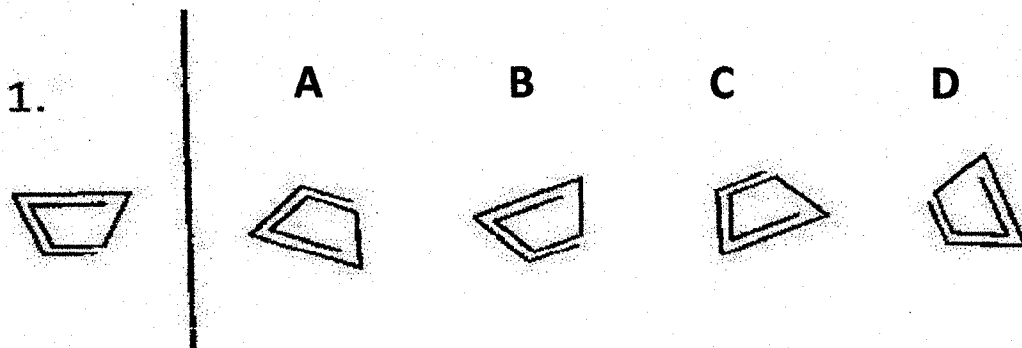
(b) Quarrelsome

(c) Valiant

(d) Brave

**Directions to solve (Questions 72 - 73) :** Each problem in this test consists of one figure on the left of a vertical line and four figures on the right. You are to decide which of the four figures on the right is the same as the figure on the left.

72.



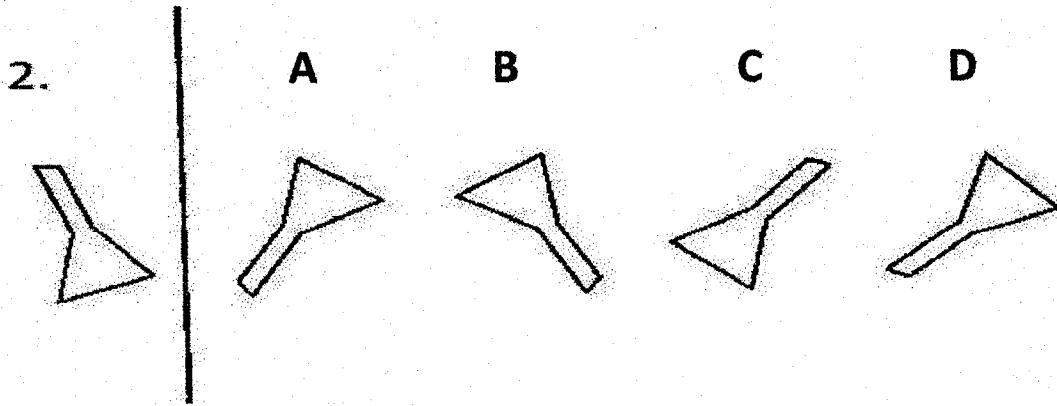
(a) A

(b) B

(c) C

(d) D

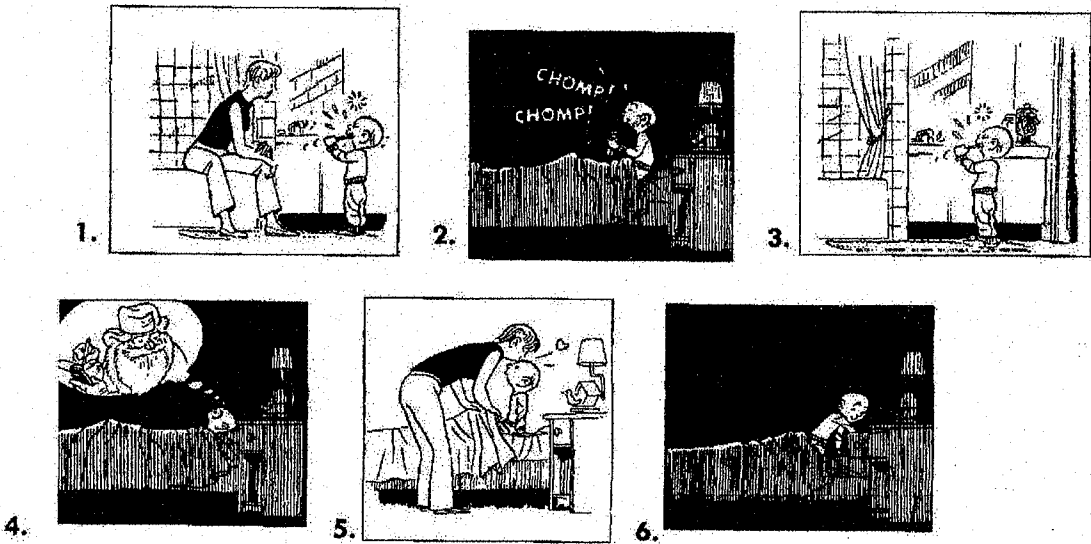
73.



- (a) A
- (c) C

- (b) B
- (d) D

74. Look at the following sets of pictures. Put them in the right order so that they will tell a story.

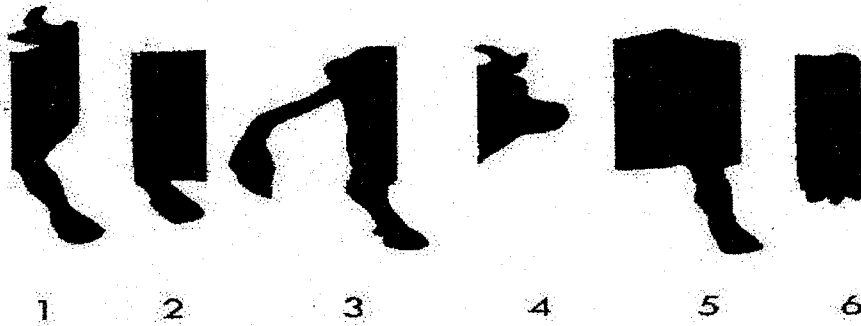


- (a) 5 6 1 3 4 2
- (c) 3 1 5 4 6 2

- (b) 1 5 6 2 4 3
- (d) 1 5 3 6 2 4



75. In this test, parts of a well known object are placed in the wrong order. You have to choose the correct order, from left to right, in which these parts should be placed in order to form the object. The parts of each object are numbered.



- (a) 3 2 6 1 5 4
- (c) 3 2 1 5 6 4

- (b) 1 4 2 3 5 6
- (d) 3 6 2 5 1 4

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