

MIZORAM PUBLIC SERVICE COMMISSION

TECHNICAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF CLINICAL RESEARCH OFFICER UNDER HEALTH & FAMILY WELFARE DEPARTMENT GOVERNMENT OF MIZORAM, AUGUST, 2022

PAPER - II

Time Allowed : 3 hours

Full Marks : 200

All questions carry equal mark of 2 each.

Attempt all questions.

Direction (Questions No. 1 - 4) : Read the following passages carefully and answer the questions that follow:

An earthquake comes like a thief in the night, without warning. It was necessary, therefore to invent instruments that neither slumbered nor slept. Some devices were quite simple. One, for instance, consisted of rods of various lengths and thicknesses which would stand up on end like ninepins. When a shock came it shook the rigid table upon which these stood. If it were gentle, only the more unstable rods fell. If it were severe, they all fell. Thus, the rods by falling and by the direction in which they fell, recorded for the slumbering scientist, the strength of a shock that was too weak to waken him and the direction from which it came. But, instruments far more delicate than that were needed if any really serious advance was to be made.

The ideal to be aimed at was to devise an instrument that could record with a pen on paper the movements, of the ground or of the table, as the quake passed by. While I write my pen moves but the paper keeps still. With practice, no doubt, I could, in time, learn to write by holding the pen still while the paper moved. That sounds a silly suggestion, but that was precisely the idea adopted in some of the early instruments (seismometers) for recording earthquake waves. But when table, penholder and paper are all moving how is it possible to write legibly? The key to a solution of that problem lay in an everyday observation. Why does a person standing in a bus or train tend to fall when a sudden start is made? It is because his feet move on, but his head stays still.

1. Why was it necessary to invent instruments that did not sleep?
 - (a) Because an earthquake comes to rob you
 - (b) Because instruments become less reliable if they slept
 - (c) Because scientific research takes place at all times
 - (d) Because earthquakes can come at anytime without warning
2. The simple method of recording earthquakes with the use of rods failed because:
 - (a) They were not sensitive enough to detect gentle earthquakes
 - (b) They did not record severe earthquakes
 - (c) They kept falling down
 - (d) They failed to record the direction from where the earthquake came
3. The perfect method to record earthquakes on pen and paper is if:
 - (a) Both pen and paper remain still during an earthquake
 - (b) Both pen and paper move during an earthquake
 - (c) Only the pen should move
 - (d) Only the paper should move
4. a person falls down when a train moves suddenly because:
 - (a) both his head and feet moves
 - (b) only his feet moves
 - (c) both head and foot stay still
 - (d) only his head moves

Direction (Questions No. 5 - 9) : Read the following passages carefully and answer the questions that follow:

Most people would admit that the English language is in a bad way, but it is generally assumed that we cannot by conscious action do anything about it. Our civilization is declining and our language must inevitably share in the general collapse. It follows that any struggle against the abuse of language is a sentimental archaism, like preferring candles to electric light or carriages to vehicles. Underneath this lies the belief that language is natural growth and not an instrument which we shape for our own purposes.

Now it is clear that the decline of a language must ultimately have political and economic causes. It is not due simply to the bad influence of this or that individual writer. But sometimes, a bad action to something may produce a worse reaction. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the ugliness of our language makes it easier for us to have foolish thoughts. The point is that the process is reversible. Modern English, especially written English, is full of bad habits which spread by imitation and which can be avoided if one is willing to take the necessary trouble. If one gets rid of these habits, one can think more clearly, and to think clearly is a necessary first step towards political regeneration: so that the fight against bad English is not useless and is not the exclusive concern of professional writers.

5. The decline of the English language can be attributed to:
 - (a) The decline of civilization
 - (b) People not doing anything about it
 - (c) Bad habits
 - (d) Lack of knowledge about one's language
6. The author of the passage believes that
 - (a) Some people prefer old things to the new
 - (b) Some people are too sentimental
 - (c) Language is a natural growth which cannot be stopped
 - (d) People use language for their own purpose
7. The author believes that the process of the decline of English language is
 - (a) Reversible
 - (b) Irreversible
 - (c) Unnatural
 - (d) Natural
8. The first step toward political regeneration is:
 - (a) Political awareness
 - (b) To use professional writers
 - (c) Imitating habits
 - (d) Clear thinking
9. What causes bad language in the end?
 - (a) Political and economic causes
 - (b) Bad writers
 - (c) Foolish thoughts
 - (d) Political regeneration

Direction (Questions No. 10 - 14) : Read the following passages carefully and answer the questions that follow:

I was asked this question during a recent interview: "Is the Covid-19 pandemic the end of humanity?" While I do not believe that Covid-19 will be the end of humanity, I do believe it has brought out our humanity. The word humanity means human beings collectively; but it also means showing benevolence. As we see with any crisis, Covid-19 is bringing out the best in a lot of people. The vast majority of people are demonstrating the best of humanity and giving us real hope as we strive to bring an end to the pandemic. Their generosity of spirit, compassion and kindness are reducing illness and relieving the suffering brought on by Covid-19. Neighbors are helping neighbors in simple acts of grace, such as delivering groceries, running errands, or calling them to keep spirits up and offer connection. Community organizers everywhere are stepping up to provide food to those most in need, including children who lost access to regular meals when schools closed.

Perhaps the absolute best of humanity is demonstrated in the frontline healthcare workers who are putting in countless hours and showing up for work every day despite the obvious risks. A large number of medical personnel have died providing service to those infected with Covid-19. Equally revealing their compassion for others and willingness to accept risk are the essential workers manning the cash registers, delivering our mail and packages, keeping our lights on, picking up the trash, or otherwise maintaining critical elements of society despite the presence of a novel virus with its many unknowns. These two classes of workers must perform their duties, risking their lives even when everyone else remains home under lockdown.

Yes, while humanity is brought low, and many people have died, this pandemic has taught us what it means to share, to support and to be compassionate.

10. The word pandemic means:
 - (a) Wide-spread disease
 - (b) Famine
 - (c) Death due to pollution and overcrowding
 - (d) Suffering and death
11. By demonstrating the best of humanity, people are giving out
 - (a) Communicable diseases
 - (b) Charity
 - (c) Hope
 - (d) Medicines
12. Many children have lost access to food because
 - (a) Their families have died
 - (b) They can no longer receive food when schools closed
 - (c) It has become impossible for farmers to keep on farming
 - (d) Covid-19 has reduced their appetite
13. The best of humanity is revealed by:
 - (a) Healthcare workers who risk their lives to provide health care
 - (b) Children going to school
 - (c) Neighbours helping neighbours
 - (d) Community organisers
14. People who cannot stay home during the pandemic are:
 - (a) Community organisers
 - (b) Teachers and office-workers
 - (c) People who help others
 - (d) Medical personnel and essential workers
15. The ability to bounce back from setbacks, to be successful again after something bad has happened.
 - (a) Victory
 - (b) Competence
 - (c) Resilience
 - (d) Confidence
16. _____ defines what is important, worthwhile and worth striving for. It is a belief that something is good and desirable.
 - (a) Goals
 - (b) Values
 - (c) Norms
 - (d) Customs
17. Having meaningful _____ helps to enhance an individual's mental health to a large extent.
 - (a) Values and beliefs
 - (b) Relationships with others
 - (c) Power and prestige
 - (d) Information and knowledge
18. Body language, eye contact, hand gestures and tone of voice are all parts of:
 - (a) Listening
 - (b) Passive-aggressive behavior
 - (c) Non-verbal communication
 - (d) Negotiation skills
19. A person who is always on time for work and always fulfill promises in life, exemplifies:
 - (a) Reliability
 - (b) Confidence
 - (c) Motivation
 - (d) Self-awareness

20. During communication with others, maintaining eye contact from time to time will reassure that:
- (a) You are optimistic and confident
 - (b) You are tolerant and non-judgmental to what they are saying
 - (c) You are paying attention to them and listening to what they are saying
 - (d) You approve of everything they are saying and will not contradict them
21. The ability to manage social relationships is known as:
- (a) Social Intelligence
 - (b) Emotional Intelligence
 - (c) Collaboration
 - (d) Small wins
22. Creation of new ideas and breakthroughs to problem solving is the technique of achieving creativity through:
- (a) Incubation
 - (b) Imagination
 - (c) Improvement
 - (d) Investment
23. One of the causes of Conflict is:
- (a) Informational deficiencies
 - (b) Punishment
 - (c) Redirection
 - (d) Reprimand
24. A _____ connects the sender to the receiver.
- (a) Noise
 - (b) Feedback
 - (c) Channel
 - (d) Communication
25. _____ refers to the non-verbal elements of communication which include dimensions of speech such as pitch, volume etc.
- (a) Para language
 - (b) Sign language
 - (c) Body language
 - (d) Symbolic language
26. Who advocated the theory that humans are essentially motivated by levels of need?
- (a) Abraham Maslow
 - (b) Elton Mayo
 - (c) F.W Taylor
 - (d) None of the above
27. When employees on the same level in the organization communicate between themselves, the communication taking place is called:
- (a) Downward communication
 - (b) Lateral communication
 - (c) Upward communication
 - (d) Similar communication
28. When a person hears only what he/she wants to hear, typically misinterpreting what the other person says, it is known as:
- (a) Critical listening
 - (b) Evaluative listening
 - (c) Comprehension listening
 - (d) Biased listening

Direction for Question No. 29 : Read the following information to answer the question.

P ψ Q means P is mother of Q.

P \mathcal{E} Q means P is sister of Q.

P $\$$ Q means P is father of Q.

P $\#$ Q means P is brother of Q.

29. Which of the following means A is nephew of C?
- (a) D $\#$ C $\$$ B $\#$ A \mathcal{E} E
 - (b) A $\#$ B $\$$ D \mathcal{E} E $\$$ C
 - (c) C $\#$ D $\$$ B $\#$ A $\$$ E
 - (d) B ψ E $\#$ C $\$$ E \mathcal{E} A

Direction for Questions No. 30 & 31 : Each of these questions consists of a pair of words bearing a certain relationship. From amongst the given alternatives, pick up the pair that best illustrates a similar relationship.

30. Court : Justice

- (a) Police : Crime
- (b) Teacher : Study
- (c) Doctor : Sickness
- (d) Auditor : Accuracy

31. Relaxation : Work

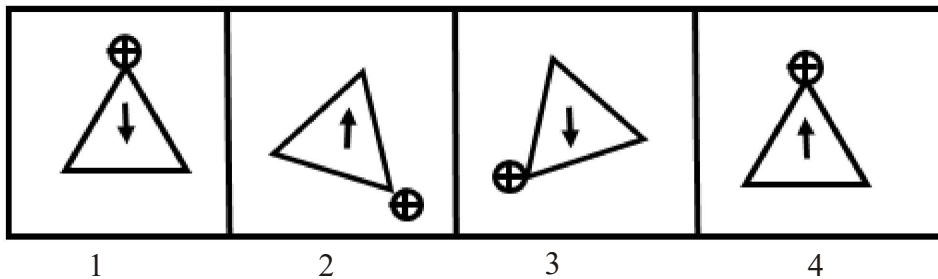
- (a) Play : Cheat
- (b) Lunch : Dinner
- (c) Smile : Laugh
- (d) Fresh : Stale

32. In certain coding method, the word QUESTION is encoded as DOMESTIC. In this coding, what is the code word for the word RESPONSE?

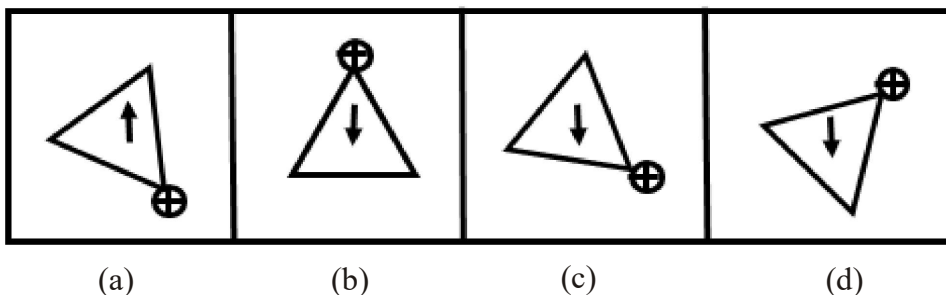
- (a) OMESUCEM
- (b) OMESICSM
- (c) OMESICEM
- (d) OMESISCM

33. In each item, there are two sets of figures, first four figures named Problem figures and next four figures named Answer figures indicated as (a), (b), (c) and (d). The problem figures follow a particular sequence. In accordance with the same, which one of the four answer figures should appear in fifth figure?

Problem figures:



Answer figures:



34. What are the missing numbers in this series, 15, 20, 24, 15, 28, 32, 15, __, __, 15?

- (a) 37, 41
- (b) 36, 40
- (c) 38, 42
- (d) 40, 44

35. Mary starts at point T, walks straight to point U which is 4 ft away. She turns left, at 90° and walks to point W which is 4 ft away, turns 90° right and goes 3 ft to point P, turns 90° right and walks 1 ft to point Q, turns left at 90° and goes to point V, which is 1 ft away and once again turns 90° and goes to point O, 3 ft away. What is the distance between points T and O?

- (a) 4 ft
- (b) 5 ft
- (c) 7 ft
- (d) 8 ft

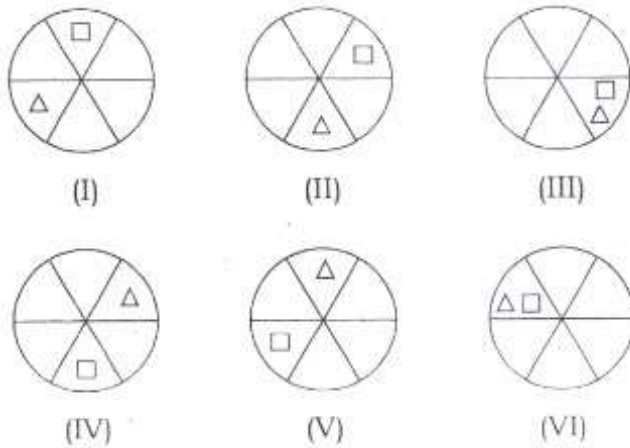
36. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

r_mmar_am_arr__mar

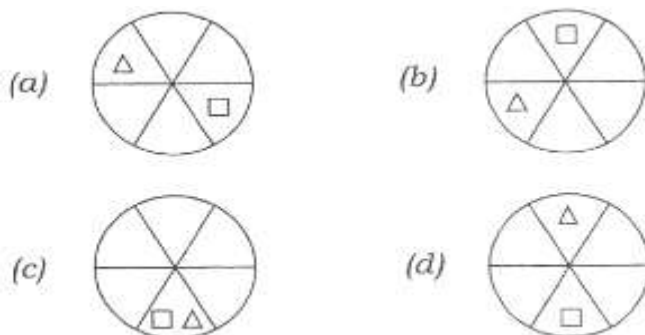
- (a) ramma
- (b) mramr
- (c) armam
- (d) aramr

37. In 2000, John's age was one-fourth of the age of his father. In 2016, his age will be half the age of his father. What is John's year of birth?
- (a) 1994 (b) 1996
(c) 1992 (d) 1991
38. Mary and Jenny go for a swim after a gap of every 2 days and every 3 days respectively. If on 1st January both of them went for a swim together, when will they go together next?
- (a) 7th January (b) 8th January
(c) 12th January (d) 13th January
39. Rini was born 4 years after her parents' marriage. Her mother is three years younger than her father and 24 years older than Rini, who is 13 years old. At what age did Rini's father get married?
- (a) 22 years (b) 23 years
(c) 24 years (d) 25 years
40. A person bought a refrigerator worth Rs. 22,800 with 12.5% interest compounded yearly. At the end of first year he paid Rs. 8,650 and at the end of second year Rs. 9,125. How much will he have to pay at the end of third year to clear the debt?
- (a) Rs. 9,990 (b) Rs. 10,000
(c) Rs. 10,590 (d) Rs. 11,250
41. A simple mathematical operation in each number of the sequence 14, 18, 20, 24, 30, 32, results in a sequence with respect to prime numbers. Which one of the following is the next number in the sequence?
- (a) 34 (b) 36
(c) 38 (d) 40

42. Consider the following figures :



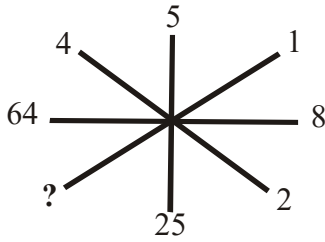
In the figures (I) to (VI) above, some parts are shown to change their positions in regular directions. Following the same sequence, which of the figures given below will appear at (VII) stage?



43. Which of the following statements about the rational decision-making model is NOT correct?
- (a) It is based on the scientific method.
 - (b) It assumes that each alternative is equal to any other alternative.
 - (c) It is grounded in establishing goals and alternatives.
 - (d) It is a traditional, logical approach.
44. Dr Ropuii made a decision of implementing very high cast water project when she was uncertain of the outcome. The decision she made is likely to be:
- (a) Low quality.
 - (b) Unacceptable.
 - (c) Highly successful.
 - (d) Risky.
45. Which of the following statements includes an activity that is NOT a step of rational problem solving?
- (a) Analyze the cause of the problem and search for alternative solutions.
 - (b) Plan the implementation and then develop an action plan.
 - (c) Search for alternative solutions and then implement them all.
 - (d) Identify the problem and clarify it.
46. Which of the following term is used when managers make every decision, from the alternatives, based on a philosophy that you do you make the best decision, no matter how long it takes.
- (a) Optimizing
 - (b) Satisficing
 - (c) Sub-optimizing
 - (d) Escalation of commitment
47. When a plant manager who is trying to reduce turnover of production workers notices that turnover has decreased by 10 percent four months after he instituted a new training program, at which step in the rational decision-making process is this manager?
- (a) Identification of the problem of plant.
 - (b) Evaluation of the decision criteria.
 - (c) Analyzing the alternatives.
 - (d) Evaluation of the results.
48. "Decision making under risk" means:
- (a) the decision has no data on which to base his or her decision.
 - (b) the decision maker is used to dealing with high-risk situations.
 - (c) the decision maker knows all of the risks involved in the situation.
 - (d) the decision maker can estimate the risk involved in making a decision.
49. Puii authorizes an additional \$100,000 for the production of the new product. The cost of the new product seems to be increasing far beyond what was planned or even forecast. However, Puii continues to support the project. Puii is engaging in:
- (a) Availability experiential.
 - (b) Representative heuristic.
 - (c) Escalation of commitment.
 - (d) Developing depreciation.
50. Once alternatives have been identified, the decision maker must critically analyze the _____ and _____ of each one, which become evident as they are compared with the criteria and weights established in steps 2 and 3.
- (a) potentials; costs
 - (b) costs; effects
 - (c) strengths; weaknesses
 - (d) images; profits
51. Your subordinate applies for leave but your office work will be affected due to his absence as he is a key person for that work. You should:
- (a) Refer his matter to your superiors.
 - (b) Sanction the leave.
 - (c) Meet him/her and discuss about the reason of leave and try to convince him/her of the urgent need of their presence.
 - (d) Ask another staff member to fill in for him/her in their absence.

52. A quantitative technique for decision making that shows a complete picture of potential alternative decision paths is called:
- (a) The Delphi technique (b) Decision tree
(c) Brainstorming (d) SWOT analysis
53. The ideal condition for making decisions is one of:
- (a) High Risk (b) Low Risk
(c) Certainty (d) Uncertainty
54. A decision made before the occurrence of an external or internal change is called a _____ decision
- (a) Proactive (b) Reactive
(c) Intuitive (d) Systematic
55. A process in which a group of individuals generate and state ideas, but in which the rules prohibit questioning, evaluating, or rejecting any ideas, even if they seem ridiculous is called:
- (a) Bounded rationality (b) Nominal group technique
(c) Brainstorming (d) Kaizen technique
56. The utilitarian approach to ethical decision making is based upon:
- (a) the principle that develops moral virtues like compassion, loyalty & integrity.
(b) the principles that promote rights, dignity and respect to individuals.
(c) the principles that benefit the community as a whole.
(d) the principle of maximizing benefits and minimizing loss.
57. Find the missing number in the series.
132, 156, ?, 210, 240, 272
- (a) 196 (b) 182
(c) 199 (d) 204
58. Find the wrong number in the series.
3, 8, 15, 24, 34, 48, 63
- (a) 15 (b) 24
(c) 34 (d) 48
59. Kima's brother is 3 years senior to him. His father was 28 years of age when his sister was born while his mother was 26 years of age when he was born. If his sister was 4 years of age when his brother was born, what were the ages of Kima's father and mother respectively when his brother was born?
- (a) 32 years, 23 years (b) 32 years, 29 years
(c) 35 years, 29 years (d) 35 years, 33 years
60. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?
- (a) Grandfather (b) Grandmother
(c) Daughter (d) Granddaughter
61. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?
- (a) 246173 (b) 214673
(c) 214763 (d) 216473
62. If South-East becomes North, North-East becomes West and so on. What will West become?
- (a) North-East (b) North-West
(c) South-East (d) South-West

63. Select the option that gives the number missing from the following figure.



- (a) 4
- (b) 3
- (c) 2
- (d) 1

64. Out of 120 students in a school, 5% can play all the three games Cricket, Chess and Carroms. If so happens that the number of players who can play any and only two games is 30. The number of students who can play the Cricket alone is 40. What is the total number of those who can play Chess alone or Carroms alone?

- (a) 45
- (b) 44
- (c) 46
- (d) 24

65. A group of 90 children are seated in rows for a group photo session. Each row contains two less children than the row in front of it. Which one of the following number of rows is not possible?

- (a) 6 rows
- (b) 5 rows
- (c) 4 rows
- (d) 3 rows

66. There are twenty one people working in an office. The first group of seven works between 10.00 A.M. and 4.00 P.M. The second group of seven works between 12 noon and 6.00 P.M. And the third group of seven works between 8.00 A.M. and 2.00 P.M. There are five computers in the office which all the employees frequently use. During which of the following hours the computers are likely to be used the most?

- (a) 10:00 A.M. - 12:00 noon
- (b) 12:00 noon - 2:00 P.M.
- (c) 1:00 P.M. - 3:00 P.M.
- (d) 2:00 P.M. - 4:00 P.M.

Directions (Questions No. 67 & 68): Study the following information to answer the given questions: In a class of boys and girls, (a) Zuala's rank is 7th and Muani's rank is 12th; (b) Zuala's rank among the boys is 4th and Muani's rank among girls is 8th; (c) Muani's rank is 48th from the end; and (d) Zuala's rank among the boys is 27th from the end.

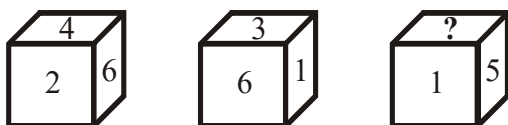
67. How many boys are there in the class?

- (a) 30
- (b) 29
- (c) 28
- (d) Can't be determined

68. Which of the following is Muani's rank among the girls from other end?

- (a) 23rd
- (b) 22th
- (c) 21st
- (d) Can't be determined

69. Three positions of the same dice are given below. Observe the figures carefully and tell which number will come in place of '?'.



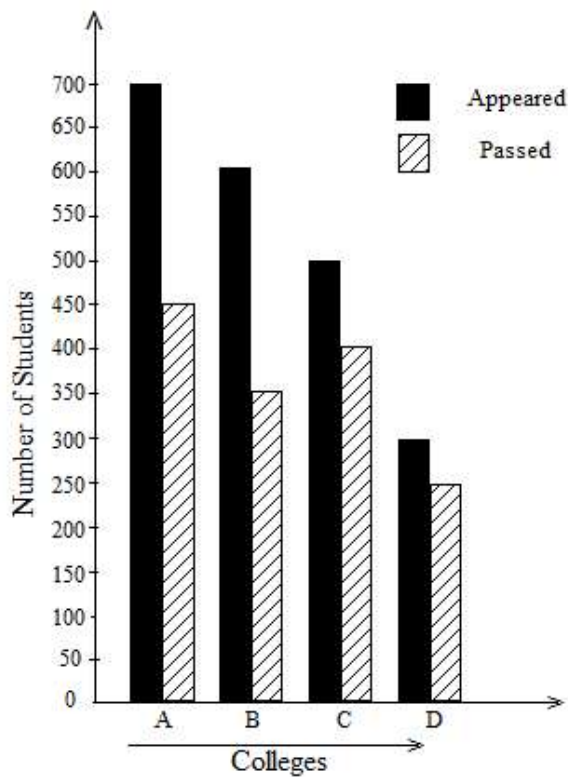
- (a) 6
- (b) 4
- (c) 3
- (d) 2

70. In a class of 40 students, a boy is ranked 20th. When two boys joined, his rank was dropped by one. What is his new rank from the end?
- (a) 19th (b) 20th
(c) 21st (d) 22nd
71. Ctrl, Shift and Alt are called _____ keys.
- (a) Modifier (b) Function
(c) Alphanumeric (d) Adjustment
72. Which of the following memory has the fastest response to CPU?
- (a) RAM (b) SSD
(c) HDD (d) Cache
73. Bitcoin cryptocurrency runs on _____ technology.
- (a) Soft Computing (b) Quantum
(c) Artificial Intelligence (d) Blockchain
74. Arrange the units of memory in ascending order.
- (a) TB>MB>GB>KB (b) MB>GB>TB>KB
(c) TB>GB>MB>KB (d) GB>MB>KB>TB
75. The Process of permanently erasing a disk/drive is called
- (a) Wiping (b) Formatting
(c) Cleaning (d) Defragmenting
76. Which effect we see as the slides of a PowerPoint changes over
- (a) Animation (b) Timing
(c) Effect (d) Transition
77. Which among the following is NOT true about dark web?
- (a) It is a part of the internet that isn't indexed by conventional search engines.
(b) It is also called deep web.
(c) It can only be accessed by special TOR browser.
(d) Illegal activities takes place in dark web.
78. What is the name of first super computer of India?
- (a) Saga 220 (b) PARAM 8000
(c) ENIAC (d) PARAM 6000
79. A harmful program that copies itself to other computers across the internet is called
- (a) Computer Virus (b) Trojan Horse
(c) Worms (d) Hacking
80. Which of the following cyber crime report was highest in Mizoram in 2021?
- (a) Financial fraud (b) Cyberbullying
(c) Sextortion (d) Hacking
81. Which among the following social media platform is recently brought by Elon Musk?
- (a) Telegram (b) Instagram
(c) Twitter (d) Snapchat
82. SSD memory in computer stands for
- (a) Super Semiconductor Device (b) Super State Drive
(c) Solid Semiconductor Device (d) Solid State Drive
83. Which of the following type of cyber attack employ social engineering of a target?
- (a) DoS attack (b) Hacking
(c) Phishing (d) DNS Spoofing

84. Which of the following Ms Excel formula is NOT correct to add values in cell A1, A2 and A3?
(a) =SUM(A1:A3) (b) =A1+A2+A3
(c) =SUM(A1,A2,A3) (d) All of these gives correct answer
85. Which of the following shortcut key is used to start the MS Powerpoint slideshow?
(a) Using F5 key (b) Using F3 key
(c) Using F1 key (d) Using F6 key
86. Which among the following is NOT a computer language?
(a) C++ (b) Ubuntu
(c) Python (d) Java
87. In a certain school, there are 456 girls. Calculate the total number of students if 24% of the total students are boys.
(a) 840 (b) 700
(c) 600 (d) 580
88. The smallest square number that is divisible by each of the numbers 8, 15, and 20.
(a) 3200 (b) 3400
(c) 3600 (d) 3800
89. If $0.75 : 1.20 :: x : 8$, the value of 'x' is –
(a) 3 (b) 5
(c) 7 (d) 9
90. A map is given with a scale of 2 cm = 1000 km. What is the actual distance between the two places in kms, if the distance in the map is 3.5 cm?
(a) 7000 km (b) 3500 km
(c) 2000 km (d) 1750 km
91. What is the buying price of 6 kg of sugar at ₹ 30 per kg when 5% ST is added on the purchase?
(a) ₹ 39 (b) ₹ 150
(c) ₹ 189 (d) ₹ 270
92. A letter of English alphabets is chosen at random. The probability that it is a letter of the word 'MATHEMATICS' is –
(a) $\frac{11}{26}$ (b) $\frac{4}{13}$
(c) $\frac{5}{13}$ (d) $\frac{9}{26}$
93. The simplified value of $\sqrt{50} - \sqrt{98} + \sqrt{162}$ is -
(a) $2\sqrt{2}$ (b) $5\sqrt{2}$
(c) $3\sqrt{2}$ (d) $7\sqrt{2}$
94. By selling an article for Rs. 180, 10% is lost. Selling price of the article to gain 5% is -
(a) Rs. 210 (b) Rs. 225
(c) Rs. 230 (d) Rs. 215
95. How many bricks each $25\text{cm} \times 15\text{cm} \times 8\text{cm}$ are required to build a wall 10 m long, 4m high and 48 cm thick?
(a) 4000 (b) 8000
(c) 6000 (d) 6400

96. A and B can do a piece of work in 30 days. Band C can do it in 24 days while C and A in 20 days. The number of days to finish the work if they all work together is -
(a) 12 days (b) 14 days
(c) 16 days (d) 15 days
97. The average age of X and Y is 30 years and that of Y and Z is 26 years. The difference of the age of X and Z is -
(a) 2 years (b) 6 years
(c) 8 years (d) 7 years
98. The circumference of a semicircle of radius 28 cm is -
(a) 144 cm (b) 88 cm
(c) 176 cm (d) 72 cm

Direction (Questions No. 99 & 100) : Study the following graph carefully and answer the question given below:



99. The respective ratio of the number of students appeared in college A to the number of students appeared in college C is -
(a) 7 : 5 (b) 5 : 7
(c) 6 : 7 (d) 5 : 4
100. The average number of students passed in all the colleges together is -
(a) 352.6 (b) 356.2
(c) 326.5 (d) 362.5