MIZORAM PUBLIC SERVICE COMMISSION

GENERAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF ASSISTANT UNDER MIZORAM PUBLIC SERVICE COMMISSION,

APRIL, 2019

PAPER - II

\{ Section A - General Knowledge - 75 Marks \}
\{ Section B - Simple Arithmetic - 50 Marks \}

Time Allowed : 3 hours

Full Marks : 125

All questions carry equal marks of 1 each.

Attempt all questions.

SECTION - A

(General Knowledge - 75 Marks)

1. In how many phase will the ensuing General Election to the Lok Sabha be conducted?
   (a) Eight  (b) Seven
   (c) Six  (d) Nine

2. Which City in South America is named the World Capital of Architecture for 2020 by UNESCO?
   (a) Rio de Janeiro  (b) Brasilia
   (c) Santiago  (d) Bogota

3. Which Russian made jet fighter of IAF was recently shot down in a recent clash with Pakistan?
   (a) MiG-27  (b) MiG-21
   (c) MiG-25  (d) Mirage-2000

4. Who was the Chief Guest of the Official Ceremony in the Republic Day 2019?
   (a) Crown Prince of Saudi Arabia  (b) President of South Africa
   (c) President of Argentina  (d) Prime Minister of Malaysia

5. Who is the winner of Australian Open Women’s Single, 2019?
   (a) Caroline Wozniacki  (b) Petra Kvitova
   (c) Naomi Osaka  (d) Venus Williams

6. Which film won Most Awards in 91st Academy Awards?
   (a) Bohemian Rhapsody  (b) Green Book
   (c) Roma  (d) Free Solo

7. Which of the following has been declared as the third administrative division of Jammu and Kashmir?
   (a) Leh  (b) Ladakh
   (c) Chenad  (d) Pir Panjal

8. Which City hosted the second-summit of US President Donald Trump and North Korean leader Kim Jong un?
   (a) Bangkok  (b) Singapore
   (c) Hanoi  (d) Kuala Lumpur
9. What is the equivalent rank of Wing Commander of IAF in the Indian Army?
   (a) Captain  (b) Major
   (c) Lieutenant Colonel  (d) Colonel

10. Which High Court rules against Negative Marking in Competitive Exam?
    (a) Allahabad  (b) Guwahati
    (c) Madras  (d) Delhi

11. Which Union Minister presented the Interim Budget 2019?
    (a) Piyush Goyal  (b) Arun Jaitley
    (c) Sushma Swaraj  (d) Nirmala Sitharaman

12. Who has been elected as the new CEO of the International Cricket Council?
    (a) Sunil Gavaskar  (b) Shashank Manohar
    (c) Manu Sawhney  (d) David Richardson

13. Who has been selected as the new Director of CBI?
    (a) M. Nageshwar Rao  (b) Alok Verma
    (c) Rishi Kumar Shukla  (d) Rakesh Asthana

14. Who hosted the 61st Annual Grammy Awards, 2019?
    (a) Childish Gambino  (b) Kacey Musgraves
    (c) Alicia Keys  (d) Dolly Parton

15. Who among the following won the Nobel Peace Prize for 2018?
    (a) Arthur Ashkin  (b) Nadia Murad
    (c) Paul Romer  (d) George P. Smith

16. What is the name of the Air Defence System to be procured from Russia?
    (a) S-400 Missile  (b) S-250 Missile
    (c) S-200 Missile  (d) S-410 Missile

17. Who amongst the following did not win Bharat Ratna 2019?
    (a) Bhupen Hazarika  (b) Pranab Mukherjee
    (c) Teejan Bai  (d) Nanaji Deshmukh

18. Who has been appointed Civil Aviation Secretary of Air India?
    (a) Pradeep Singh Kharola  (b) Naresh Kumar
    (c) Suresh Rajan  (d) Dinesh Gupta

19. Who is the US Special Representative on North Korea?
    (a) Martin Indyk  (b) Daniel Kammen
    (c) Lee Do-Hoon  (d) Stephen Biegun

20. In which city did the Prime Minister inaugurated the National War Memorial?
    (a) Mumbai  (b) Lucknow
    (c) New Delhi  (d) Chennai

21. With which country did the Ministry of Coal signed MOU on cooperation in the field of coal mining?
    (a) Russia  (b) U.S.A.
    (c) Poland  (d) Czech Republic
22. What is the name of Super Computer built at the cost of Rs. 32.5 crore at Banaras Hindu University?
   (a) PARAM Shivay          (b) PARAM Yuva 2
   (c) Sahasra T             (d) Aaditya

23. At what percent, fiscal deficit for the budget of 2019-2020 has been pegged?
   (a) 3.4 %                  (b) 3.2 %
   (c) 3.1 %                  (d) 3.9 %

24. Which Central Armed Police Force (CAPF) has been granted power to arrest anyone in the North East?
   (a) Assam Regiment         (b) Border Security Force (BSF)
   (c) Central Reserve Police Force (CRPF)  (d) Assam Rifles

25. Which country signed an accord to join as new member of NATO?
   (a) Albania                (b) Greece
   (c) Macedonia              (d) Lithuania

26. What is the name of the 40th communication satellite of India launched by ISRO from French Guiana recently?
   (a) GSAT-31                (b) GSAT-40
   (c) GSAT-7A                (d) GSAT-15

27. In which country will the first-ever solutions-focused event “Global Cooling Innovation Summit” be held?
   (a) United Kingdom         (b) South Africa
   (c) Brazil                 (d) India

28. What is the name of the first bilateral joint naval exercise between India and Indonesia?
   (a) Samudra Shakti         (b) Samudra Diwas
   (c) Samudra                (d) Vijay Shakti

29. What is the capital of Andhra Pradesh?
   (a) Hyderabad              (b) Amaravati
   (c) Visakhapatnam           (d) Kurnool

30. In which city was India’s first fulldome 3D Digital Theatre opened?
   (a) Chennai                (b) Kolkata
   (c) Pune                   (d) Patna

31. Which Indian journalist has won the 2018 London Press Freedom Award for courage?
   (a) Swati Chaturvedi       (b) Prannoy Roy
   (c) Arnab Goswami          (d) Dhruv Rathee

32. Which social initiative has been launched by Twitter India to boost youth engagement for 2019 General Election?
   (a) #PowerOf18             (b) #PowerOfVoters
   (c) #PowerOf19             (d) #PowerOfElection

33. In which city was India’s first specialised hospital for elephants opened?
   (a) Guwahati               (b) Mathura
   (c) Kochi                 (d) Chennai
34. From which launch vehicle was GSAT-29 launch into space by ISRO?
   (a) GSLV MkIII  (b) PSLV MkIII
   (c) GSLV MkII  (d) PSLV MkII

35. What is the India’s GDP growth rate forecast for the year 2018, as per latest report by Moody’s Investors Service?
   (a) 7.7 %  (b) 7.6 %
   (c) 7.8 %  (d) 7.5 %

36. Who is the writer of a book “I do what I do”?
   (a) Khushwant Singh  (b) Raghuram G. Rajan
   (c) Shaktikanta Das  (d) Urjit Patel

37. “What so amazing about Grace” is written by
   (a) Philip Yancey  (b) Rick Warren
   (c) Brian D. Mclaren  (d) Jack London

38. The author of the book “Zoram Kalsiam” is
   (a) L.Keivom  (b) M.Lalmanzuala
   (c) K.Sapdanga  (d) K.Remruatfela

39. The author of the book Mere Christianity is
   (a) C. S. Lewis  (b) Dorothy L. Sayers
   (c) Frank W. Braham  (d) George MCDonald

40. Who is the author of the book “Notes of a Dream - The Authorised Biography of AR Rahman”?
   (a) Anaya Chauhan  (b) Krishna Trilok
   (c) Mridula Behari  (d) Devapriya Roy

41. Which female Asian Athlete figures in top 10 of Forbes highest Earning female athlete in 2018?
   (a) Saina Nehwal  (b) Mary kom
   (c) P.V. Sindhu  (d) Manika Batra

42. Which position India managed at Commonwealth Games, 2018 in Australia?
   (a) 4th  (b) 3rd
   (c) 5th  (d) 8th

43. Who won the 2019 Australian Open Mens Single title?
   (a) Roger Federer  (b) Rafael Nadal
   (c) Novak Djokovic  (d) Alexander Zverev

44. Which team won the 2018 Santosh Trophy of Football?
   (a) Mizoram  (b) Railways
   (c) West Bengal  (d) Kerela

45. Who has won the 86th Senior Snooker National Championship?
   (a) Laxman Rawat  (b) Aditya Mehta
   (c) Geet Sethi  (d) Pankaj Advani

46. The full form of NRC is
   (a) National Registration of Citizenship  (b) National Register of Citizens
   (c) Nationality Register of Citizenship  (d) Nationality Registration of Citizens
47. The full form of NHRR is
   (a) National Health Resource Repository  (b) National Health Reserve Resources
   (c) National Health Resource Reserves  (d) National Health Repository Resource

48. The full form of ERSS is
   (a) Emergency Reserve System Support  (b) Emergency Response Support System
   (c) Emerging Responsive Support System  (d) Encounter Response Support System

49. BRICS stands for
   (a) Brazil, Russia, India, China and South Africa
   (b) Bangladesh, Romania, Indonesia, Cambodia and Sudan
   (c) Belgium, Romania, Italy, Canada and Saudi Arabia
   (d) Belize, Rwanda, Iran, Cameroon and Senegal

50. CBDT stands for
   (a) Central Board of Direct Taxes  (b) Centre Board of Direct Taxation
   (c) Central Board of Direct Taxation  (d) Centre Board of Direct Taxes

51. Blue Mountains
   (a) Nilgiri Hills  (b) Aravalli Hills
   (c) Western Ghat  (d) Naga Hills

52. Britain of the South
   (a) Australia  (b) New Zealand
   (c) New Guinea  (d) Tasmania

53. City of Dreaming Spires
   (a) Dublin  (b) London
   (c) Paris  (d) Oxford

54. City of Golden Gate
   (a) Seattle  (b) Chicago
   (c) Florida  (d) San Francisco

55. Cockpit of Europe
   (a) Norway  (b) Belgium
   (c) Denmark  (d) Ireland

56. Who won the Seoul Peace Prize for 2018?
   (a) Narendra Modi  (b) Ram Nath Kovind
   (c) Arun Jaitley  (d) Sushma Swaraj

57. Which noted flute player received Sangeet Natak Akademi award?
   (a) Lalitha J. Rao  (b) Rajendra Prasanna
   (c) Yogesh Sansi  (d) None of these

58. Which film won the Oscar for Best Picture Award in 2019?
   (a) The favourite  (b) Black Panther
   (c) Green Book  (d) Free Solo

59. The winner of Man Booker Prize 2018
   (a) Rachel Kushner  (b) Robin Robertson
   (c) Anna Burns  (d) Daisy Johnson
60. Who is crowned as the Miss Universe 2018?
   (a) Catriona Gray (b) Stephany Gutierrez
   (c) Tamaryn Green (d) Kiara Ortega

61. Who invented mobile phone?
   (a) Joel S. Engel (b) Bell Scientists
   (c) Martin Cooper (d) Alexander Graham Bell

62. Who invented light bulb?
   (a) Thomas Edison (b) Graham Bell
   (c) Michael Faraday (d) None of these

63. Who invented computer?
   (a) Charles Babbage (b) Alan Twing
   (c) John Von Neumann (d) Donald Knuth

64. Who invented microphone?
   (a) Graham Bell (b) T.A.Edison
   (c) Emile Berliner (d) Ray Kurzweil

65. Who invented Velcro?
   (a) George de Mestral (b) Percy Spencer
   (c) Arthur Fry (d) Spencer Silver

66. Which of the following are the Risk factors which are associated with Electronic Payment System?
   (a) Fraudulent use of credit cards (b) Sending credit card details over internet
   (c) Remote storage of credit card details (d) All of these

67. What is the name of the process for extracting previously useful and actionable information from large data to make crucial business and strategic decisions?
   (a) Data Management (b) Data base
   (c) Data Mining (d) Meta Data

68. Which of the following operating system (OS) is better for implementing client server network?
   (a) Windows 95 (b) Windows 98
   (c) Windows 2000 (d) All of these

69. Which of the following retains the information when the power to the system is shut down?
   (a) CPU (b) ROM
   (c) RAM (d) DIMM

70. A network of computers and other peripherals that is confined to a relatively small space is call
    (a) Local Area Network (b) Wide Area Network
    (c) Global Network (d) Intranet

71. Every computer connected to the internet is identified by a unique four-part strings known as
   (a) IP Address (b) Domain name
   (c) Host Address (d) None of these

72. What is the full form of USB?
   (a) Unlimited Service Band (b) Unlimited Serial Bus
   (c) Universal Serial Bus (d) Unlimited Storage Bus
73. What is the name of a technology that allows telephone calls to be made over computer networks like the internet?
   (a) VoIP  (b) GSM  (c) Modem  (d) CDMA

74. What is the name of the programme that runs in the background on your computer, sending information about your browsing habits to the company that installed it on your computer?
   (a) Pop-ups  (b) Adware  (c) Grayware  (d) Spyware

75. 1 Gigabyte (GB) is equal to
   (a) 1024 bytes  (b) 1024 KB  (c) 1024 MB  (d) 1024 TB

Section - B
(Simple Arithmetic - 50 Marks)

76. The product of two irrational numbers is:
   (a) always irrational  (b) always rational  (c) always an integer  (d) sometimes rational, sometimes irrational

77. The compound interest on Rs. 5000 for 2 years at 8% per annum compounded annually is
   (a) Rs. 382  (b) Rs. 525  (c) Rs. 832  (d) Rs. 238

78. A machine was bought at a price of Rs. 21,000. The value of the machine was depreciated by 5%, then the value of the machine after 1 year is:
   (a) Rs. 19,950  (b) Rs. 18,850  (c) Rs. 19,000  (d) Rs. 21,950

79. In compound interest, if the rate is compounded half-yearly, then the time period becomes twice and rate is:
   (a) doubled  (b) halved  (c) one-fourth  (d) same

80. In a ratio 11 : 14, if the antecedent is 66, the consequent is:
   (a) 55  (b) 66  (c) 74  (d) 84

81. In a mixture of 120 litres, the ratio of milk and water is 2 : 1. What amount of water must be added to make the ratio 1 : 2?
   (a) 120 litres  (b) 80 litres  (c) 40 litres  (d) 100 litres

82. How much will Rs. 1250 in 2 years at 4% per annum on compound interest? The sum is:
   (a) Rs. 1352  (b) Rs. 1250  (c) Rs. 1300  (d) Rs. 1532

83. The average age of a man and his son is 36 years. The ratio of their age is 24:12 respectively. What will be the ratio of their ages after 6 years?
   (a) 9 : 5  (b) 5 : 9  (c) 6 : 9  (d) 9 : 6
84. Michael crosses a path 600 m long in 5 minutes. His speed, in km/h is:
   (a) 12  (b) 10  
   (c) 8.2  (d) 7.2

85. \( \frac{2}{6} + ? = 8 \)
   (a) \( \frac{1}{12} \)  (b) \( \frac{1}{13} \)
   (c) \( \frac{1}{24} \)  (d) \( \frac{1}{25} \)

86. Maria in a train notices that she can count 41 telephone posts in one minute. If they are known to be 50 metres apart, then at what speed (in km/h) is the train travelling?
   (a) 205 km/h  (b) 9.5 km/h
   (c) 123 km/h  (d) 120 km/h

87. Two boys starting from the same place walk at a rate of 5 km/h and 5.5 km/h respectively. How far apart will they be in 4 hours, if they walk in the same direction?
   (a) 2 km  (b) 12 km
   (c) 42 km  (d) 20 km

88. \( ? + \frac{1}{6} = \frac{2}{4} + \frac{1}{3} \)
   (a) \( \frac{1}{6} \)  (b) \( \frac{2}{3} \)
   (c) \( \frac{2}{4} \)  (d) \( \frac{3}{2} \)

89. If the perimeter and area of a circle are equal, then the radius of the circle is:
   (a) 2 units  (b) \( \pi \) units
   (c) 4 units  (d) 7 units

90. The area of a circle that can be inscribed in a square of side 6 cm is:
   (a) 36\( \pi \) cm\(^2\)  (b) 18\( \pi \) cm\(^2\)
   (c) 9\( \pi \) cm\(^2\)  (d) 12\( \pi \) cm\(^2\)

91. If \( \theta \) is the angle (in degrees) of a sector of a circle of radius \( r \), then area of the sector is:
   (a) \( \frac{\pi r^2 \theta}{180^\circ} \)  (b) \( \frac{\pi r^2 \theta}{360^\circ} \)
   (c) \( \frac{2\pi r \theta}{180^\circ} \)  (d) \( \frac{2\pi r \theta}{360^\circ} \)

92. Construction of a cumulative frequency distribution table is useful in determining the:
   (a) mean  (b) mode
   (c) median  (d) all the above three measures

93. If two solid hemispheres of same base radius \( r \) are joined together along their bases, then curved surface area of this new solid is:
   (a) 4\( \pi r^2 \)  (b) 3\( \pi r^2 \)
   (c) 6\( \pi r^2 \)  (d) 2\( \pi r^2 \)

94. A right circular cylinder of radius \( r \) cm and height \( h \) cm \((h > 2r)\) just encloses a sphere of diameter:
   (a) \( r \) cm  (b) \( h \) cm
   (c) 2\( h \) cm  (d) 2\( r \) cm
95. If the radius of the base of a right circular cylinder is halved, keeping the height same, then the ratio of the volume of the cylinder thus obtained to the volume of the original cylinder is:
   (a) 1 : 4     (b) 2 : 1
   (c) 1 : 2     (d) 4 : 1

96. The sum of two numbers is 129 and their difference is 45. Then the numbers are:
   (a) 74 and 55     (b) 87 and 42
   (c) 82 and 47     (d) 75 and 54

97. Two numbers are in the ratio 4 : 5. If 16 is added to each of these numbers, the ratio becomes 6 : 7. The numbers are:
   (a) 32 and 40     (b) 24 and 30
   (c) 28 and 35     (d) 4 and 5

98. Two numbers are such that the sum of twice the first and thrice the second is 97 and four times the first exceeds six times the second by 14. What are the numbers?
   (a) 26 and 15     (b) 34 and 29
   (c) 41 and 28     (d) 55 and 42

99. The marked price of a house in Aizawl is Rs. 40,00,000. A buyer pays Rs. 42,40,000 for the house. The rate of sales tax charged is:
   (a) 4 %     (b) 5 %
   (c) 6 %     (d) 8 %

100. An item was sold for Rs. 900 including 12.5% VAT. What was the price before VAT was added?
    (a) Rs. 500     (b) Rs. 600
    (c) Rs. 750     (d) Rs. 800

101. If 2 : 3 : : x : y, then x will be:
    (a) 4     (b) 9
    (c) 12     (d) 18

102. The cost of 5 m of a particular type of cloth is Rs. 210. The cost of 13 m of cloth of the same type is
    (a) Rs. 420     (b) Rs. 630
    (c) Rs. 546     (d) Rs. 800

103. The weight of 12 sheets of thick paper is 40g. How many sheets of the same paper would weigh 2.5kg?
    (a) 100     (b) 750
    (c) 830     (d) 480

104. If 3a = 4b = 5c, then a : b : c is
    (a) 15 : 20 : 16     (b) 16 : 20 : 18
    (c) 15 : 25 : 30     (d) 20 : 15 : 12

105. A man’s age is three times the sum of the ages of his two sons. After 5 years, his age will be twice the sum of the ages of his two sons. How old is the man now?
    (a) 40 years     (b) 45 years
    (c) 50 years     (d) 55 years

106. The angles of a triangle are x, y and 40°. The difference between the angles x and y is 30°. The measure of x and y are:
    (a) 80° and 50°     (b) 50° and 80°
    (c) 85° and 55°     (d) 55° and 85°
The ratio between two numbers is 5 : 6. If 5 is subtracted from each number, the ratio becomes 4 : 5. The numbers are:

(a) 25, 30  
(b) 9, 10  
(c) 30, 36  
(d) 50, 60

The number of planks of dimensions (4 m × 5 m × 2 m) that can be stored in a pit which is 40 m long, 12 m wide and 16 m deep is:

(a) 180  
(b) 184  
(c) 190  
(d) 192

In a cylinder, if radius is halved and height is doubled, the volume will be:

(a) same  
(b) halved  
(c) doubled  
(d) four times

The radius of a sphere is 2r, then its volume will be:

(a) $\frac{4}{3} \pi r^3$  
(b) $\frac{8}{3} \pi r^3$  
(c) $4 \pi r^3$  
(d) $\frac{32}{3} \pi r^3$

The length of the longest pole that can be put in a room of dimension (10 m × 10 m × 5 m) is:

(a) 10 m  
(b) 12 m  
(c) 15 m  
(d) 16 m

The marks obtained by 20 students in a Mathematics test (out of 100) are given below:

99, 36, 91, 82, 100, 96, 100, 65, 76, 82, 90, 46, 72, 64, 66, 68, 49, 48, 79, 55.

The range of the data is:

(a) 36  
(b) 64  
(c) 54  
(d) 100

$\sqrt{10} \times \sqrt{15}$ is equal to:

(a) $5\sqrt{6}$  
(b) $6\sqrt{5}$  
(c) $\sqrt{25}$  
(d) $10\sqrt{3}$

The rationalizing factor of $\left(2 + \sqrt{5}\right)$ is:

(a) $2 + \sqrt{5}$  
(b) $\sqrt{2} - 5$  
(c) $\sqrt{2} + 5$  
(d) $\sqrt{5} - 2$

If the sum of the areas of two circles with radii $R_1$ and $R_2$ is equal to the area of a circle with radius $R$, then

(a) $R_1 + R_2 < R$  
(b) $R_1^2 + R_2^2 < R^2$  
(c) $R_1 + R_2 = R$  
(d) $R_1^2 + R_2^2 = R^2$

A hollow cube of internal edge 22 cm is filled with spherical marbles of diameter 0.5 cm and it is assumed that $\frac{1}{8}$ space of the cube remains unfilled. Then the number of marbles that the cube can accommodate is:

(a) 142296  
(b) 145596  
(c) 145496  
(d) 143496
117. At one end A of a diameter AB of a circle of radius 5 cm, tangent XAY is drawn to the circle. The length of the chord CD parallel to XY and at a distance 8 cm from A is:
   (a) 5 cm  (b) 6 cm  (c) 8 cm  (d) 4 cm

118. The value of $\sqrt{121} + \sqrt{144}$
   (a) 23  (b) 32  (c) 33  (d) 42

119. The roots of the equation $x^2 + px + q = 0$ are equal if
   (a) $p^2 = -2q$  (b) $p^2 = 2q$  (c) $p^2 = 4q$  (d) $p^2 = -4q$

120. The discriminant of the quadratic equation $3\sqrt{3}x^2 + 10x + \sqrt{3} = 0$ is
   (a) 8  (b) 64  (c) $-\sqrt{3}$  (d) $-\frac{1}{3\sqrt{3}}$

121. The additive inverse of $\frac{x+3}{x-7}$ is
   (a) $\frac{x+3}{x-7}$  (b) $\frac{x-7}{x+3}$  (c) $\frac{x+3}{x+7}$  (d) $\frac{-(x+3)}{x-7}$

122. $6\frac{5}{6} \times 5\frac{1}{3} + 17\frac{2}{3} \times 4\frac{1}{2} = ?$
   (a) $115\frac{17}{18}$  (b) $112\frac{1}{3}$  (c) $116\frac{2}{3}$  (d) $118\frac{1}{4}$

123. The value of 1.999… in the form $\frac{p}{q}$, where $p$ and $q$ are integers and $q \neq 0$, is
   (a) $\frac{1}{9}$  (b) 2  (c) $\frac{19}{10}$  (d) $\frac{1999}{1000}$

124. The compound interest on Rs. 8000 for 1 year at 10% per annum compounded half-yearly is
   (a) Rs. 800  (b) Rs. 820  (c) Rs. 882  (d) Rs. 8400

125. A machinery worth Rs. 7500 is depreciated by 4%. Its value after 1 year will be
   (a) Rs. 7450  (b) Rs. 7000  (c) Rs. 7200  (d) Rs. 7300