MIZORAM PUBLIC SERVICE COMMISSION

Mizoram Group 'B' (Gazetted) General Services (Combined Competitive) Examinations under Various Department, Government of Mizoram, July-2024

GENERAL STUDIES PAPER-III

Time Allowed : 3 hours   FM : 100

SECTION - I (Multiple Choice questions) (100 Marks)
All questions carry equal mark of 2 each. Attempt all questions.
This Section should be answered only on the __OMR Response Sheet__ provided.

1. A child is swinging back and forth on a playground swing. At what point in the swing's motion is the speed of the child at its maximum?
   (a) At the lowest point of the swing
   (b) At the highest point of the swing
   (c) Midway between the highest and lowest points
   (d) Speed is constant throughout the swing

2. Which of the following is a chemical change?
   (a) Melting of ice
   (b) Boiling of water
   (c) Dissolving sugar in water
   (d) Rusting of iron

3. Which of the following is not an objective of the Chandrayaan 3 Mission?
   (a) To demonstrate Safe and Soft Landing on Lunar Surface.
   (b) To demonstrate Rover roving on the moon.
   (c) To conduct in-situ scientific experiments.
   (d) To study the lunar atmosphere.

4. What type of biological molecule acts as a catalyst, speeding up chemical reactions in living organisms?
   (a) Enzyme
   (b) Hormone
   (c) Antibody
   (d) Lipid

5. What is the primary goal of Machine Learning (ML)?
   (a) To replicate human intelligence exactly
   (b) To automate tasks without human intervention
   (c) To enable computers to learn from data and improve performance over time
   (d) To create robots that can think and feel like humans

6. A specific learning technique that require several layers of neurons to increase learnable parameters with huge datasets is called -
   (a) Machine learning
   (b) Artificial Neural Network
   (c) Deep learning
   (d) Python

7. A technique to generate high-resolution surface image of earth by expanding the radar aparture through motion of the mounting vehicle and the image quality not being affected by weather condition is -

    (a) Light Detection and Ranging
    (b) Synthetic Aperture Radar
    (c) Optical Telescopic Vision
    (d) Electron Macroscopy

8. What is the ambitious plan approved by the government of India in 2006 for improving services provided to the people by the government through the use of Information Technology?

    (a) National e-Governance Plan
    (b) e-Lekha Plan
    (c) Bharat e-Gov Plan
    (d) Indian e-Governance Development Plan

9. Regarding which ransomware virus, the CERT-in issued advisory?

    (a) Akita
    (b) Akira
    (c) Antaki
    (d) Kimino

10. Which underlying technology powers interactive AI such as ChatGPT, etc.?

    (a) Quantum computing
    (b) Artificial Neural Networks (ANNs)
    (c) Blockchain
    (d) Genetic algorithms

11. Who is the father of Indian nanotechnology?

    (a) Shrinivas Ramanujan
    (b) Prof. C.N.R. Rao
    (c) C.V. Raman
    (d) Amartya Sen

12. National Technology Day is observed every year on which date?

    (a) 28 February
    (b) 11 May
    (c) 16 February
    (d) 17 August

13. During the Pokhran – II nuclear test on 11th May 1998, how many nuclear bombs were successfully tested?

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

14. *Crydoductylus vairengtensis* is the new _____ endemic to Mizoram discovered in Mizoram in November 2023.

    (a) Fish species
    (b) Orchid species
    (c) Gecko species
    (d) Earthworm

15. India joined the Artemis Accords (an international effort on space exploration led by NASA) on which date?

    (a) 21st June 2023
    (b) 7th September 2023
    (c) 12th January 2024
    (d) 22nd March 2024

16. A laboratory-based technology that involves the alteration of an organism's DNA is termed as -

    (a) Cell therapy
    (b) Gene therapy
    (c) Genetic Engineering
    (d) Stem Cell Engineering

17. The name of the programme launched to promote Artificial Intelligence in India:

    (a) ChatGPT
    (b) Pytorch
    (c) INDIAai
    (d) BharatAI

18. The technology developed by Dr Lalji Singh that found wide application in forensic investigation is -

    (a) DNA finger printing technology   (b) Restriction enzyme technology

    (c) DNA barcoding technology   (d) Whole genome sequencing technology

19. A new species of deep-sea isopod, *Brucethoa Isro*, named after the Indian Space Research Organisation was discovered in which South Indian state?

    (a) Andra Pradesh   (b) Tamil Nadu

    (c) Karnataka   (d) Kerala

20. The Indian lip-syncing humanoid robot invented by Ranjit Shrivastava, a Ranchi-based software engineer is -

    (a) Shalu robot   (b) Rashmi robot

    (c) Sophia   (d) Mitra

21. In ancient Mizo tradition, sacrifice offered in order to receive blessing in farming is called-

    (a) Kawngpui siam   (b) Fano dawi

    (c) Khawkheng thawi   (d) Dawino chhui

22. In early Mizo society, women were not supposed to enter -

    (a) Zawlbuk   (b) Pum

    (c) Sumhmun   (d) Se huang

23. Grouping of villages was introduced in Mizoram from -

    (a) March, 1966   (b) April, 1966

    (c) January, 1967   (d) April, 1967

24. The complete translation of the Bible into Mizo language was published in the year -

    (a) 1956   (b) 1957

    (c) 1958   (d) 1959

25. The first newspaper published in Mizoram was-

    (a) Mizo leh Vai Chanchinbu   (b) Mizo Chanchin Laisuih

    (c) Zoram Thupuan   (d) MZP Chanchinbu

26. Which of these is a Mizo musical instrument?

    (a) Tungchaw   (b) Berhbu

    (c) Lemlawi   (d) Chumchi

27. In early Mizo tradition, to adopt the religion of another clan is called-

    (a) Sakung   (b) Sedawi

    (c) Saphun   (d) Sekhuan

28. Mizo Academy of Letter's Book of the Year, 2023 recipient is-

    (a) Zohmangaihi   (b) Ahmangaihi Khiangte

    (c) Lalhruaitluanga Chawngte   (d) Lalrammawia Ngente

29. Which one of the following is Mizoram state animal?

    (a) Sathar   (b) Sakei

    (c) Saza   (d) Sazuk

30. A flask made from the horn of a bison or mithun used to carry gunpowder is-

(a) Fungki
(b) Kingkawt
(c) Sahmim
(d) Paitung

31. The Superintendent of Lushai Hills, author of 'Lushai Chrysalis' is-

(a) AG McCall
(b) Lt. Col. Treagear
(c) NE Parry
(d) ARH McDonald

32. The first political party, Mizo Union was established in-

(a) 1946
(b) 1947
(c) 1948
(d) 1945

33. The Lakher Pioneer Mission was started by-

(a) JH Lorrain
(b) FW Savidge
(c) DE Jones
(d) RA Lorrain

34. Which expedition was sent to the Lushai Hills in retaliation to the capture of Mary Winchester?

(a) The Lushai Expedition of 1871-72
(b) The Expedition of 1869
(c) The Chin-Lushai Expedition 1889 -1890
(d) The Lister's Expedition 1850

35. The Mizo gave T.H. Lewin a nickname (Mizo name) called-

(a) Tarmita
(b) Thangliana
(c) Lalmantua
(d) Sap Upa

36. Who was responsible for the abolition of Bawi in Mizoram?

(a) J. Shakespeare
(b) A.G. Mc Call
(c) Peter Fraser
(d) ARH McDonald

37. The great darkness that happened in the earth in Mizo folktale was called-

(a) Khawzing
(b) Thimzing
(c) Thlazing
(d) Khawzim

38. The Mizo spinning wheel for spinning cotton into yarns is called-

(a) Suvel
(b) Herawt
(c) Ladinlek
(d) Hmui

39. The first and only person among the Mizos who has received 'Padma Bhushan' is-

(a) Brig. T. Sailo
(b) Rev. Dr. Zairema
(c) PS Chawngthu
(d) Capt. LZ Sailo

40. 'Khuallam' is also known as-

(a) Chawnglaizawn
(b) Solakia
(c) Thingdim
(d) Chai

Directions (Question No. 41): What comes in place of questions mark(?) in the series given below?

41. AZ, BY, CX, ?

(a) EW
(b) DW
(c) GH
(d) EU

Directions (Question No. 42): In the following question, two words are paired which have a certain relation. Select a correct option to substitute a question mark, so as to make a similar relational pair with the word given after double colon (: :)

42. Right : Duty: : Power : ?

    (a) Wrong   (b) Powerless

    (c) Weak   (d) Liability

43. Find out how will the key figure (X) look like after rotation.

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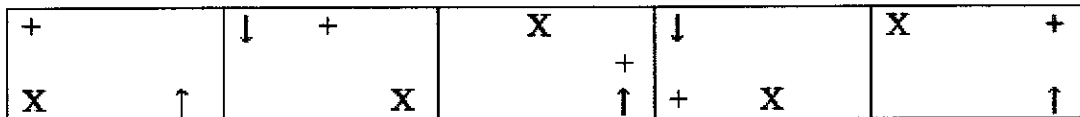
    (c) 3   (d) 4

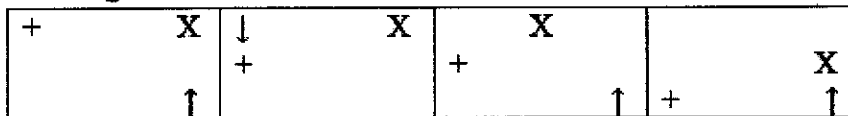**44.** Oar is to rowboat as foot is to:

    (a) Running   (b) Sneaker

    (c) Skateboard   (d) Jumping

Directions (Question No. 45): In the questions given below, find the correct answer out of the four answer figures, if the problem figures continue in the same sequence.

45. Problem Figures

Answer Figures

    (a)   (b)   (c)   (d)

Directions (Question Nos. 46 & 47) : Find the missing term in each of the following series:

46. 1, 2, 9, 28, ...?..., 126, 217

    (a) 65   (b) 271

    (c) 56   (d) 172

47. 44, 40, 34, ...?..., 16, 4

    (a) 26   (b) 21

    (c) 28   (d) 19

Directions (Question. Nos. 48 - 50): Each of the following questions consists of a pair of words. Establish the relationship among the given pair and identify the pair that best illustrates a similar relationship from amongst the alternatives.

48. Libertine : Immortality : :
   (a) victim : depravation
   (b) miser : selfishness
   (c) altruist : selflessness
   (d) policeman : law

49. Author : Manuscript : :
   (a) optician : eyesight
   (b) engineer : bridge
   (c) architect : blueprint
   (d) doctor : stethoscope

50. Tally : Votes : :
   (a) census : population
   (b) government : administration
   (c) taxation : revenue
   (d) team : sports

SECTION - II *(100 Marks)*

Mark for each question is indicated against it

UNIT-A

*This Unit should be answered only on the **Separate Sheet** provided.*

Attempt any 2 (two) questions.

1. Discuss the role of science and technology in revolutionizing agriculture in India and how the scientific advancements and technological innovations transformed agricultural practices, productivity, and sustainability in the country. Illustrate your answer with specific examples of key developments and their impacts on food security and rural livelihoods. **(10+10=20)**

2. Discuss the primary issues of concern regarding climate change, including its impacts on global temperatures, sea levels, weather patterns, and biodiversity. Additionally, examine how the adoption and expansion of renewable energy sources contribute to mitigating climate change and energy security by reducing greenhouse gas emissions. **(10+10=20)**

3. Discuss the potential consequences of Artificial Intelligence (AI) on the global job market in the next decade. Also discuss how the AI-driven automation could affect employment rates in India and what strategies can be implemented to mitigate its potential negative impacts. **(10+10=20)**

4. Discuss the role of Technology in the improvement of governance in India, stressing on how each specific technology is used in certain areas. Also dicuss the areas where we are lagging and suggest for improvements. **(10+10=20)**

UNIT-B

*This Unit should be answered only on the **Separate Sheet** provided.*
Attempt any 2 (two) questions.

5. Examine the social hierarchy in traditional Mizo society. **(20)**

6. Write the emergence, function and importance of *Zawlbuk* in traditional Mizo society. How did it decline? **(15+5=20)**

7. Discuss the negative and positive impact of insurgency in Mizoram (Rambuai). **(10+10=20)**

8. Describe the contribution of missionaries (Zosap) for the growth of education in Mizoram. **(20)**

UNIT-C

*This Unit should be answered only on the **Separate Sheet** provided.*
Attempt all questions.

Directions (Question Nos. 9 & 10): In the question given below, find the correct answer out of the four answer figures, if the problem figures continue in the same sequence.

9. Problem Figures **(2)**

Answer Figures

(a) (b) (c) (d)

10. Problem Figures **(2)**

Answer Figures

(a) (b) (c) (d)

11. Draw a pie chart with the following information and also answer the question given below

    Information: A- Printing costs (35%)

            B- Cost of paper (10%)

            C- Miscellaneous (4%)

            D- Royalty (15%)

            E- Advertisement charges (18%)

            F- Binder's charges (18%)

    If the miscellaneous charges are Rs. 6000, how much is the advertisement charges? **(3)**

12. If a man were to sell his wrist watch for Rs. 720, he would lose 25%. At what price he must sell it to gain 25%? **(3)**

13. Fill in the blanks with appropriate words.

    Today, most businessmen are very worried. To begin with, they are not used to competition. In the past they sold whatever_____ produced at whatever prices they chose. But_____ increasing competition, customers began to_____ and choose. Imports suddenly became _____ available and that too at cheaper prices. **(4)**

Directions (Question No. 14) : In the following question choose the word which best expresses the meaning of the given word.

14. AUGUST **(2)**

    (a) Dignified   (b) Common

    (c) Petty   (d) Ridiculous

Directions (Question Nos. 15 & 16): In each question given below are two statements followed by two conclusions numbered I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and decide which of the given conclusion (s) logically follow (s) from the two given statements, disregarding commonly known facts. Give your answer :

15. Statements I. Some bikes are trucks **(2)**

          II. All trucks are trains

    Conclusions I. Some bikes are trains

          II. No truck is a bike

    (a) If only conclusion I follows   (b) If only conclusion II follows

    (c) If either I or II follows   (d) If both I and II follows

16. Statements I. All girls are ships **(2)**

          II. Some ships are cupboards

    Conclusions I. Some ships are girls

          II. Some cupboards are not ships

    (a) If only conclusion I follows   (b) If only conclusion II follows

    (c) If either I or II follows   (d) If both I and II follows

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