

MIZORAM PUBLIC SERVICE COMMISSION
DEPARTMENTAL EXAMINATIONS FOR JUNIOR GRADE OF M.E.S. (AE/SDO)
UNDER PUBLIC WORKS DEPARTMENT,
GOVERNMENT OF MIZORAM, JULY, 2022.

ARCHITECTURE ENGINEERING PAPER – I

Time Allowed : 3 hours

FM : 100 PM : 40

Marks for each question is indicated against it.
Attempt all questions.

Direction (Question No. 1 - 25) Multiple choice questions. Attempt all questions. (25×2=50)

1. What is the minimum plot size and minimum width for commercial buildings as per The Aizawl Municipal Council Building Regulations, 2012?
 - (a) 55 square metre with a minimum width of 6 m.
 - (b) 60 square metre with a minimum width of 6.5 m.
 - (c) 50 square metre with a minimum width of 6 m.
 - (d) 65 square metre with a minimum width of 7m.
2. Who designed the Al Wakrah Stadium, a venue for the 2022 FIFA World Cup at Qatar?



- (a) Aecom and Zaha Hadid Architects
 - (b) Foster + Partners
 - (c) Fenwick Iribarren Architects
 - (d) Ibrahim Jaidah
3. Which of the following is not a green building rating systems in India:
 - (a) LEED (USGBC)
 - (b) IGBC (CII)
 - (c) GRIHA (TERI)
 - (d) BEE
4. 1 Acre of land is equal to
 - (a) 4046.85 sq.m
 - (b) 5056.85 sq.m
 - (c) 4056.85 sq.m
 - (d) 5000.85 sq.m
5. What does the term Necropolis refer to in history
 - (a) Organically growing settlement
 - (b) Origin of a settlement
 - (c) A dead settlement
 - (d) Merging of two settlements
6. Star Rating of an Air Conditioner is determined by its
 - (a) Power Consumption
 - (b) Energy Efficiency Ratio
 - (c) Cooling Capacity
 - (d) Power of Compressor

7. What is the minimum width of an internal staircase for residential dwellings as per The Aizawl Municipal Council Building Regulations, 2012?
 - (a) 120 cm
 - (b) 100 cm
 - (c) 110 cm
 - (d) 90 cm
8. As per AMC rules, in large buildings, the fire escape placements shall be dictated by the travelling distance, the maximum of which should not be more than
 - (a) 23 metres
 - (b) 20 metres
 - (c) 21 metres
 - (d) 22 metres
9. What is the minimum water requirement for offices (including canteen) per head per day as per the NBC?
 - (a) 45 ltrs
 - (b) 50 ltrs
 - (c) 60 ltrs
 - (d) 70 ltrs
10. Which famous architect coined the term 'Less is more'?
 - (a) Mies van der Rohe
 - (b) Rem Koolhaas
 - (c) Louis Sullivan
 - (d) Frank Gehry
11. As per the Council of Architecture guidelines, how many Classification of Competitions are there?
 - (a) 2
 - (b) 3
 - (c) 1
 - (d) 4
12. Who was the first woman architect to win the Pritzker prize?
 - (a) Julia Morgan
 - (b) Zaha Hadid
 - (c) Annabelle Selldorf
 - (d) Odile Decq
13. What is the maximum permissible FAR for Government or Semi- Government buildings as per The Aizawl Municipal Council Building Regulations, 2012?
 - (a) 2.5
 - (b) 2
 - (c) 3
 - (d) 1.5
14. Ozone-depleting substances are commonly found in which products?
 - (a) paints and lacquers
 - (b) refrigerants
 - (c) household appliances
 - (d) furniture
15. What are the minimum vertical and horizontal distance of the roof of a building from High Voltage lines upto and including 33.000V:
 - (a) 3.0 m vertically and 2.5 metres horizontally
 - (b) 3.7 m vertically and 2 metres horizontally
 - (c) 2.7 m vertically and 2 metres horizontally
 - (d) 2 m vertically and 3 metres horizontally
16. The total length of a Stair in a horizontal plane is known as the _____.
 - (a) run
 - (b) soffit
 - (c) scotia
 - (d) step
17. What is Brise-soleil in architecture?
 - (a) architectural feature that reduces heat gain within that building
 - (b) an architectural feature that reduces the entrance of cold air
 - (c) an architectural feature for rain and moisture protection
 - (d) an aesthetic feature of a building

- 18.** Which is the first LEED Platinum certified building in India?
- (a) CII- Sohrabji Godrej Green Business Centre, Hyderabad
 - (b) Suzlon One Earth, Pune
 - (c) ITC Green Centre, Gurgaon
 - (d) Jawaharlal Nehru Bhawan, New Delhi
- 19.** The phenomenon of heat buildup in cities leads to the formation of:
- (a) Carbon Island
 - (b) Urban Island
 - (c) Heat Island
 - (d) Green House Island
- 20.** As per the COA Comprehensive Architectural Services, how many stages of work are there?
- (a) 5
 - (b) 6
 - (c) 7
 - (d) 8
- 21.** What is the recommended entrance/ opening width of a 13 passenger Lift well?
- (a) 1000mm
 - (b) 900 mm
 - (c) 850 mm
 - (d) 950 mm
- 22.** For all disputes or differences which may arise between the client and the architect under conditions of agreement and scale of charges, an arbitrator shall be appointed by:
- (a) the client
 - (b) the architect
 - (c) mutual agreement between the client and architect
 - (d) President of the COA
- 23.** What is generally considered the best orientation for the longer axis of a football field?
- (a) North west- South east
 - (b) East- West
 - (c) North east- South west
 - (d) North- South
- 24.** What is the full form of ECBC?
- (a) Energy Conservation Building Code
 - (b) Energy Conservation in Building Construction
 - (c) Environmental Conservation Building Code
 - (d) Environmental Conservation in Building Construction
- 25.** The name of the Master Plan adopted for Aizawl city is
- (a) Master Plan for Aizawl, Vision 2020
 - (b) Master Plan for Aizawl, Vision 2030
 - (c) Master Plan for Aizawl, Vision 2025
 - (d) Master Plan for Aizawl, Vision 2022

Direction (Question No. 26 - 35) : Short answer type questions. Attempt all questions. (10×5=50)

26. What are the components of site survey and investigation used in site planning?
27. How would the climate of Aizawl influence your design ideas for a residential building?
28. Suggest ways in which solar energy can be incorporated in buildings for a more environment friendly design?
29. Write a short note on how trees improve the microclimate of a place with reference to landscape architecture.
30. What do you mean by vernacular architecture? Give examples.
31. Write a brief specification for a 2 car parking garage using materials of your choice.
32. What are the features of a Project and Ideas Competition as per the COA Handbook of Professional documents?
33. Describe how you understand the word 'Green architecture'.
34. Design a toilet for the physically challenged, giving all the basic dimensions in mm.
35. Give your suggestions for any architectural design intervention to improve the pedestrian experience along the main spine of Aizawl town.

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