# Dr. Babasaheb Ambedkar Technological University Lonere Raigad

# Department of Civil Engineering *Question Bank*

Subject - BTCVC401\_Building Planning & Drawing

#### Module 1

- 1. Describe following principles of planning? a) Grouping b) Privacy
- 2. Describe following principles of planning? a) Aspect b) Prospect
- 3. Describe following principles of planning? a) Roominess b) Circulation
- 4. Describe following principles of planning? a) Accentuation b) Contrast
- 5. Explain sun path diagram with sketch?
- 6. Describe importance of sun path diagram?
- 7. What are the components of sun path diagram? Explain these components?
- 8. What is the importance of wind diagram in building planning?
- 9. Which are the governing factors for orientation of building?
- 10. How orientation of building gives better design?
- 11. Describe design criteria for building to be designed in hot and humid climatic zone?
- 12. Describe design criteria for building to be designed in hot and dry climatic zone?
- 13. Describe design criteria for building to be designed in cold climatic zone?
- 14. Explain the concept of green building?
- 15. Which are the criteria to be fulfilled for green building?
- 16. Explain GIHA rating system for green building?

#### **OR**

17. Draw a plan of a two storey bunglow with living room, bedrooms (2 no), kitchen and toilets. Scale – 1: 100\_\_\_\_\_\_(20 marks)

#### Module-2

- 1. Describe development plan with its scale, Colour code etc.?
- 2. Describe bye laws for means of access?
- 3. Describe bye laws for recreational open space?
- 4. Describe bye laws for front open space and side open space?
- 5. Which projections are allowed in open space around the building?
- 6. Explain floor space index?
- 7. What is the minimum area of following 1) kitchen 2) bathroom 3) WC?
- 8. What is the minimum width of following 1) kitchen 2) bathroom 3) WC?
- 9. What is the minimum height of following 1) living room 2) Basement?
- 10. What is the minimum parking space for car & scooter?
- 11. Which documents are required to get development permission?
- 12. Describe the requirement of municipal drawing for development permission?
- 13. Explain the term Anthropometry?
- 14. What is the difference between a) row house b) twin bungalow c) apartment?
- 15. Describe content of municipal drawing required for development permission?

### Module-3

- 1. Which are the various services provided in plumbing &drainage system?
- 2. Describe direct & indirect water distribution system?
- 3. Which are the bye laws for water requirement for different types of buildings?

- 4. Describe drainage below ground and drainage above ground?
- 5. Describe nahni trap with sketch?
- 6. Describe gully trap with sketch?
- 7. Describe intercepting trap with sketch?
- 8. Describe one pipe & two pipe plumbing system?
- 9. Describe septic tank & soak pit sketch?
- 10. Describe how to calculate rain water harvesting tank?
- 11. Describe lumen method of lighting design with example?
- 12. Describe various factors affecting selection of wiring system?
- 13. Describe different types of wiring system?
- 14. Describe various firefighting systems?
- 15. Which are the bye laws to be used for firefighting system of building?
- 16. Draw a typica layout of toilet showing all drainage pipes?

### **Module-4**

- 1. Describe definition & function of natural ventilation?
- 2. Describe design consideration for natural ventilation?
- 3. What are the functions of air conditioning?
- 4. Describe working of air conditioning system?
- 5. Describe various types of AC systems?
- 6. Describe the tonnage calculation for AC unit with example?
- 7. Explain various methods of reducing load on AC?
- 8. Explain working of window air conditioning system?
- 9. Explain working of split AC unit?
- 10. Describe conduction, convection & radiation?
- 11. What are the advantages of thermal insulation?
- 12. Which materials are used for thermal insulation? explain each of them?
- 13. Describe the calculation for heat loss?
- 14. Which are the methods for mechanical ventilation?
- 15. What are the recommended values of air change/hour for different types of building?
- 16. Draw a sketch of window AC unit showing all components?
- 17. Draw a plan of one BHK flat showing furniture layout (scale 1: 50)?

## **Module-5**

- 1. Which are the criteria to be fulfilled for green building?
- 2. Explain GRIHA rating system for green building?
- 3. What is the definition & importance of Acoustics?
- 4. Explain wavelength & frequency of sound?
- 5. Explain reflection & absorption of sound?
- 6. Describe the term reverberation?
- 7. Explain Sabine's formula with an example?
- 8. Which are the factors affecting acoustics of the building?
- 9. Explain noise and its types?
- 10. How to control external noise?
- 11. How to control internal noise?
- 12. Which are the various international rating systems for green building?
- 13. What are the criteria for site selection and material selection in green building evaluation?
- 14. Describe any four criteria for green building rating system?
- 15. What is the importance of green building?

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