



21CV485

USN

[illegible]

Question Paper Version : A

Fourth Semester B.E. Degree Examination, June/July 2025
Green Building

Time: 1 hr.

Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
 2. Use only **Black ball point pen** for writing / darkening the circles.
 3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
 4. Darkening two circles for the same question makes the answer invalid.
 5. **Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.**
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1. The minimum crushing strength of third class brick is :
a) 3.5 N/mm^2 b) 7 N/mm^2
c) 10 N/mm^2 d) 20 N/mm^2
 2. According to the recommendations laid by the Concrete Association of India. What should be the least strength of the blocks used in concrete masonry?
a) 3 N/mm^2 b) 4 N/mm^2 c) 2 N/mm^2 d) 5 N/mm^2
 3. The initial setting time of lime-pozzolana is,
a) 30 minutes b) 60 minutes
c) 90 minutes d) 120 minutes
 4. Plaster of Paris contains about,
a) 4 % of water b) 6% of water
c) 8% of water d) 10% of water
 5. What is concrete?
a) A mixture of homogeneous materials
b) A mixture of material and hydrogen
c) A mixture of cement and hydrogen sulphide
d) A mixture of cement, water and aggregates
 6. Which of the following is a disadvantage of steel?
a) High durability b) Reusable
c) High strength per unit mass d) Fire and corrosion resistance

7. Plastics are _____ in weight.
a) Very heavy b) Light c) Negligible d) Heavy
8. Raw materials for plastics are _____ based.
a) Wax b) Petroleum c) Wood d) All of these
9. Industrial wastes _____ municipal solid wastes.
a) are more easily separated than are
b) are more difficult to separate than are
c) is equally difficult to separate as that of
d) it depends upon type of industry
10. Circular finished stones are generally used for,
a) Pillar b) Tombstone c) Landscaping d) Column
11. In _____ type of bond, the headers are distributed evenly,
a) Stretcher bond b) Flenish bond c) Header bond d) English bond
12. PSC stands for,
a) Post-stressed concrete b) Post-strained concrete
c) Pre-stressed concrete d) Pre-strained concrete
13. _____ is used to construct very thin, hard and strong surface,
a) R.C.C. b) PSC c) PCC d) Ferro-cement
14. In an RCC structure, the tension zone lies in the,
a) Top b) Middle c) Side d) Bottom
15. The diameter of longitudinal bars of a column should never be less than _____
a) 6 mm b) 8 mm c) 10 mm d) 12 mm
16. Pick the correct options from the following :
a) Septic tank is a highly aerobic tank
b) In a septic tank, sedimentation and digestion takes place in the same chamber
c) In a septic tank, sedimentation and digestion takes place in different chambers.
d) None of these
17. Which of the below is not a filler material in filler slabs?
a) Rubber pieces b) Clay pots
c) Burnt clay bricks d) Coconut shell
18. An assembled product made up of veneers and adhesives is called,
a) Plywood b) Board c) Batten d) Plank
19. Age of a tree can be estimated by :
a) Biomass b) Number of annual rings
c) Diameter of its heartwood d) Its height and girth
20. Prefabrication is a _____ construction method.
a) Automotive b) Modern
c) Established d) Industrialized

21. Which one of the following cause global warming?
 - a) Carbon dioxide
 - b) Oxygen
 - c) Nitrogen
 - d) Hydrogen
22. Which one of the following result takes place due to global warming?
 - a) Maintaining steady temperature
 - b) Changes in the rainfall
 - c) Pleasant environment
 - d) Causing less pollution
23. Which of the following country is the largest emitter of carbon dioxide (CO₂)?
 - a) USA
 - b) China
 - c) India
 - d) Saudi Arabia
24. The concept of the carbon foot print was developed by :
 - a) UNFCCC
 - b) UNEP
 - c) Willian E Rees and Math is Wackernagel
 - d) Ernst Haeckel
25. The largest source of methane emission is _____.
 - a) Agriculture sector
 - b) Dam
 - c) Industries
 - d) Transportation sector
26. For which of the following reason, it is necessary to secure a large area for forest?
 - a) Absorption carbon dioxide
 - b) Conservation of wild
 - c) More rain
 - d) Ecological balance
27. Which energy efficiency measures are in the buildings envelope?
 - a) Orientation and passive design
 - b) Outside walls, windows, doors, roof etc.
 - c) HVAC, LED's, Fridge and TV
 - d) Bricks and Stones
28. Which of the following is not a preservation of timber?
 - a) Solution of barium hydroxide
 - b) Creosote
 - c) Chemical salt
 - d) Solignum salt
29. Which one of the following is used to protect the steel from rusting?
 - a) zinc
 - b) white lead
 - c) Molten lead
 - d) Red lead
30. Which among the following features can make a building green?
 - a) Efficient use of energy, water and other resources
 - b) Use of renewable energy
 - c) Good indoor environmental air quality
 - d) All of these
31. GRIHA means that,
 - a) Green Rating for Indian Habital Assessment
 - b) Green Rating for Integrated Habitat Assessment
 - c) Green Rating for International Habital Assessment
 - d) Green Rating for Information Habital Assessment
32. When GRIHA was launched in India?
 - a) 2008
 - b) 2006
 - c) 2010
 - d) 2011

33. Full name of TERI is,
 a) The Energy and Resources Institute
 b) The Energy and Rating Institute
 c) The Energy and Resources India
 d) The Environmental and Resources Institute
34. Which rating star is given by GRIHA for points between 71 – 80?
 a) 5 b) 4 c) 3 d) 2
35. How many points are minimum to earn in order to achieve LEED certification you need?
 a) 35 b) 40 c) 55 d) 45
36. If you have earned 55 credits, which level of LEED certification have you achieved?
 a) Platinum b) Gold
 c) Silver d) Certified
37. Sustainable building means that,
 a) Green building b) Environmental building
 c) Both A and B d) None of these
38. Which of the following is not a green building component?
 a) Water efficiency b) Design efficiency
 c) Material efficiency d) None of these
39. Which of the following green rating systems are currently working in India?
 a) LEED b) GRIHA c) Both A and B d) None of these
40. ADARSH means _____
 a) Association for Design and Research of sustainable Habitas
 b) Association for Development and Rating of sustainable Habitas
 c) Association for Development and Research of sustainable Habitas
 d) Association for Design and Rating of sustainable Habitas
41. India is utilizing solar energy through _____
 a) Photovoltaic Route b) Photometric Route
 c) Photo Power d) Photosynthesis
42. Which is the least preferred strategy of integrated solid waste management according to their Environmental benefits?
 a) Land fills b) Composting
 c) Waste to energy d) Recycling
43. Which of the following is the most suitable method of municipal solid waste disposal, for an inland village with sufficient land area?
 a) Composting b) Barging it out into the sea
 c) Incineration d) Destructive distillation
44. Waste water from different sources like bathrooms, kitchens and wash basins is called _____.
 a) Sewage b) Garbage c) Sullage d) Discharge

45. Which of the following conditions is not suitable for the disposal of excrete or sewage?
- a) The waste does not pollute the ground surface
 - b) It is not exposed to the atmosphere
 - c) It should be accessible for children
 - d) It does not give odour nuisance
46. Which of the following is not used in a passive solar heating / cooling system?
- a) Building walls
 - b) Building roofs
 - c) Air conditioners
 - d) Building floors
47. What are the major causes of air pollution in urban areas?
- a) Emission of gases
 - b) Unburnt hydrocarbons
 - c) Smoke particles / un-burnt hydrocarbons / emissioner gases
 - d) Un-burnt hydrocarbons / emission of fossil fuels
48. Which of the following type of foundation is used for the construction of building on black cotton soil?
- a) Grillage Foundation
 - b) Inverted Arch Foundation
 - c) Floating Foundation
 - d) Mat Foundation
49. In old times, the construction of super structure was done by using which of the following building material?
- a) Rubber
 - b) Timber
 - c) Bamboo
 - d) Mud
50. The main purpose of rainwater harvesting is recharge the,
- a) Spring
 - b) Well
 - c) Canal
 - d) Ground water

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