



# CBCS SCHEME

21CV385

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Question Paper Version : B

Third Semester B.E. Degree Examination, Jan./Feb. 2023

## Fire Safety in Buildings

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. Which of the following are the offences in fire and safety?
    - a) A person who disturbs the fire marshal in the execution of his duties.
    - b) Any owner or occupier of premises who permits more persons than the maximum number
    - c) Any owner or occupier of premises that do not comply with the codes or standards declared
    - d) All of the above
  2. The fire management plan contains
    - a) The name of officers
    - b) Current arrangements for management of fire safety
    - c) Map of the city
    - d) All of the above.
  3. What is the best time to write the fire incidence report?
    - a) The best time to write your report is when the incident is one day older
    - b) The best time to write your report is when the incident is two weeks older
    - c) The best time to write your report is when the incident is fresh in your mind
    - d) The best time to write your report is when the incident is one week older
  4. All fire protection features and systems required for the finished building are included in which of the following document?
    - a) Maintenance
    - b) Inspection
    - c) Design
    - d) Construction
  5. Process of maintaining different components of buildings so that it can provide proper service throughout its working life is known as \_\_\_\_\_
    - a) Building maintenance
    - b) Building management
    - c) Building service
    - d) Building repairs

6. Which type of works is done in day to day repair?  
 a) Remove chokage in pipes                      b) Cleaning of manholes  
 c) Lawn moving                                      d) All of these
7. The main aim of maintaining any structures is to  
 a) Improve its appearance  
 b) Utilize the funds provided  
 c) Stabilize the structure so as to enable it carry the functions for which it is constructed  
 d) Utilize services of in charge maintenance
8. If the cracks width is less than 0.1mm then they are called  
 a) Fine                                      b) Thin                                      c) Medium                                      d) Wide
9. Use of electricity is measured in \_\_\_\_\_ for home electric system.  
 a) V                                      b) W                                      c) KWh                                      d) mA
10. The repair and rehabilitation of damaged or spalled concrete is done by removing the \_\_\_\_\_  
 a) Loose concrete                      b) Collapsing                      c) Breakage                      d) Bonding
11. The short term modulus of elasticity of concrete (in  $N/mm^2$ ) as per IS 456-2000 is given by where  $f_{ck}$  is characteristic strength of concrete  
 a)  $5000\sqrt{f_{ck}}$                       b)  $5700\sqrt{f_{ck}}$                       c)  $3000\sqrt{f_{ck}}$                       d)  $4000\sqrt{f_{ck}}$
12. \_\_\_\_\_ is rarely used as a structural material at present construction works.  
 a) Steel                                      b) Cast iron                                      c) Aluminium                                      d) Asbestos cement
13. According to IS 1641, the fire resistance of an RCC structural elements expressed in terms of  
 a) Strength in  $N/mm^2$                                       b) Temperature in degree Celsius  
 c) Time in hours                                      d) Deformation in mm
14. There are following zones of a flame:  
 a) 2                                      b) 3  
 c) 4                                      d) No any zone
15. What is the role of class A extinguisher?  
 a) Used on ordinary combustible such as wood and paper  
 b) Used on flammable liquids  
 c) Used on electrically energized fire  
 d) Used on nonflammable metals
16. Which of the following is NOT the cause of electric fire?  
 a) Open doors                                      b) Electric short circuit  
 c) Loose connection                                      d) Over loading on wires.
17. Urban fire services provide the services to the community including \_\_\_\_\_  
 a) Fire prevention                      b) Education                      c) Fire suppression                      d) All of these

18. Which of the following are correct about common fire problems in rural areas?  
 a) Wood stoves, are involved in most rural residential heating fires  
 b) Damaged electrical equipment is often the source of fire  
 c) Heating is a common cause of deaths  
 d) All of the above.
19. The head room clearance for all pump house should be minimum \_\_\_\_\_  
 a) 1.75m                      b) 2.75m                      c) 1.5m                      d) 1m
20. Which system is installed to extinguish fire of liquids having flash point below 65°C?  
 a) FWSS                      b) HVWS                      c) MVWS                      d) None of these
21. Which type of fire protection is required for vapour explosion?  
 a) Sprinkler system                      b) Fire hydrant system  
 c) Water mist fire protection system                      d) Portable fire extinguisher
22. Smoke detector may not be more than \_\_\_\_\_ feet from any point of ceiling.  
 a) 15                      b) 30                      c) 45                      d) 21
23. Whenever a leakage (whatever leakage) is noticed, rectify it immediately to  
 a) High voltage                      b) Low voltage                      c) Flux                      d) Fire hazards
24. Which type of fire extinguisher is used for fire due to liquids?  
 a) Class A                      b) Class B                      c) Class D                      d) Class C
25. Supply of outside air into or the removal of inside air from an enclosed space is called as  
 \_\_\_\_\_  
 a) Venting fire                      b) Ventilation                      c) Fire drill                      d) None of these
26. In \_\_\_\_\_ system, the use of made of doors, windows, ventilators and skylights to make the room properly ventilated.  
 a) Artificial ventilation                      b) Air conditioning  
 c) Natural ventilation                      d) Mechanical ventilation
27. Exhaust system, Supply system, air conditioning, etc comes under \_\_\_\_\_ type of ventilation system.  
 a) Natural                      b) Mechanical  
 c) Manmade                      d) Doors
28. Simplest method of identifying weak spots are \_\_\_\_\_  
 a) Visual inspection                      b) Tapping the surface  
 c) Chipping the weak concrete                      d) Both a and b
29. In general, electric wiring of the buildings are change at every \_\_\_\_\_ year  
 a) 15 - 20                      b) 20 - 30                      c) 20 - 25                      d) 30 - 45
30. Ultrasonic testing is done in materials to determine  
 a) Cracks below the surface                      b) Yield strength  
 c) Ultimate tensile strength                      d) Hardness
31. \_\_\_\_\_ is a very good conductor of heat.  
 a) Asbestos cement                      b) Wrought iron                      c) Cast iron                      d) Aluminium



