



**SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR**  
Siddharth Nagar, Narayanavanam Road – 517583

**QUESTION BANK AND OBJECTIVES**

**Subject with Code :** BMC(15A01302)

**Course & Branch:** B.Tech - CE

**Year & Sem:** II-B.Tech & I-Sem

**Regulation:** R15

**UNIT – III**  
**INSULATING MATERILAS**

1. Explain the fundamentals of heat transfer?
2. Describe the thermal properties of insulating materials?
3. How are heat insulating materials classified?
4. Write short notes on the following:  
Rockwool, Gypsum, Thermocole, Light weight concrete, Vermiculite?
5. What are commonly used building insulation materials?
6. How to selection of Insulating Materials in building construction?
7. Give the classification of a good sound insulating materials and explain it?
8. State the requirements of a good sound insulating materials?
9. Write short notes on the following:  
Acoustical plaster, Acoustical tiles, Quits and mats?
10. (a) What is thermal insulation?  
(b) What is sound insulation?  
(c) What is electrical insulation?  
(d) Enumerate the organic and inorganic insulators?  
(e) Give common types of sound absorbent materials?

**Objectives**

1. Materials which can store electrical energy are called [ ]  
(a) Magnetic materials. (b) Semiconductors.  
(C) Dielectric materials. (d) Super conductors.
2. ACSR (Aluminium Conductor Steel Reinforced) are used as [ ]  
(a) Over head transmission lines. (b) Super conductors.  
(c) Fuse (d) Underground cables.
3. Brass is an alloy of [ ]  
(a) Copper and zinc. (b) Copper and iron.  
(c) Copper and aluminum. (d) Copper and tin.
4. Property of material which allows it to be drawn out into wires is [ ]  
(a) Ductility. (b) Solder ability.  
(c) Super conductivity. (d) Malleability.
5. In n type semi-conductor added impurity is [ ]  
(a) Pentavalent. (b) Divalent.  
(c) Tetravalent. (d) Trivalent.
6. The covers of electrical machines are made of [ ]

- (a) Soft magnetic materials. (b) Hard magnetic materials.  
(c) Super conductors. (d) Semiconductors.
7. The dielectric constant of air is practically taken as [ ]  
(a) More than unity. (b) Unity.  
(c) Less than unity. (d) Zero.
8. n-type semiconductor is an example of [ ]  
(a) Extrinsic semiconductor. (b) Intrinsic semiconductor.  
(c) Super conductor. (d) Insulators.
9. Atomic weight of an atom is [ ]  
(a) Sum of the number of protons and neutrons. (b) Sum of the number of protons and electrons.  
(c) Sum of the number of electrons and neutrons. (d) Sum of the number of electrons, protons and neutrons.
10. Gold and silver are [ ]  
(a) Dielectric materials (b) Low resistivity conducting materials.  
(c) Magnetic materials. (d) Insulating materials.
11. Dielectric materials are [ ]  
(a) Insulating materials. (b) Semiconducting materials.  
(c) Magnetic materials. (d) Ferroelectric materials.
12. A pure semiconductor under ordinary conditions behaves like [ ]  
(a) A conductor. (b) An insulator.  
(c) A magnetic material. (d) A ferro-electric material.
13. The most malleable, ductile low resistivity material is [ ]  
(a) Copper. (b) Aluminum.  
(c) Silver. (d) Iron.
14. The percentage of carbon in mild steel is [ ]  
(a) 0.08 to 0.3 % (b) 0.5 to 1.4 %  
(d) 2.35 % (d) 0.5 %
15. Aluminum is [ ]  
(a) Silvery white in colour. (b) Yellow in colour.  
(c) Reddish in colour. (d) Pale yellow in colour.
16. Hard ferrites are used for making [ ]  
(a) Transformer cores. (b) Electrical machinery.  
(c) High frequency equipment. (d) Light weight permanent magnets.
17. Micanite is a form of [ ]  
(a) Built up mica. (b) Hydrated potassium aluminum silicate.  
(c) Magnesium mica. (d) Calcium mica.
18. Insulators have [ ]  
(a) A full valence band. (b) An empty conduction band.  
(c) A large energy gap. (d) All the above.
19. The property of steel is influenced maximum by [ ]  
(a) Iron (b) Manganese  
(c) Carbon (d) Sulphur
20. The adhesive recommended for structural purposes is [ ]  
(a) Silane resin (b) glues  
(c) Rubber toughened epoxy (d) acrylic
21. Neoprene is a [ ]  
(a) Organic solvent thinned adhesive (b) latex adhesive  
(c) water-dispersed adhesive (d) two-package adhesive
22. Dextrin adhesive is [ ]  
(a) Active and nonpolar (b) vinyl copolymer

- (c) Made from starch (d) an epoxy adhesive
23. The material recommended for roofing is [ ]  
(a) Linoleum (b) asbestos  
(c) thermocole (d) geosynthetic
24. Which of the following is a cellular plastic material? [ ]  
(a) Thermocole (b) Linoleum  
(c) Neoprene (d) Asbestos
25. Which of the following is not used in the making of geosynthetics? [ ]  
(a) Nylon (b) PVC  
(c) Polypropylene (d) Ceramics
26. The minimum depth of foundation in clayey soils is [ ]  
a) 0.5 m b) 0.7 m  
c) 0.9 m d) 1.2 m
27. The maximum total settlement for raft foundation on clayey soils should be limited to [ ]  
a) 25 mm b) 25 to 40 mm  
c) 40 to 65 mm d) 65 to 100 mm
28. In fire proof paints, the main constituent is [ ]  
a. aluminium powder b. red lead  
c. copper powder d. asbestos fibers
29. Which of the following is not a varnish [ ]  
a. spar varnish b. flat varnish  
c. asphalt varnish d. methyl varnish
30. Which of the following is not a binder [ ]  
a. linseed oil b. turpentine oil  
c. nut oil d. poppy oil
31. Which of the following is not a drier [ ]  
a. letharge b. lead acetate  
c. lithophone d. white lead
32. Which of the following increase by adding extruders in paints [ ]  
a. washability b. adhesion  
c. durability d. pigment volume concentration