Q.22 What are hard ferrite and soft ferrite explain.
Q.23 Define permeability and permittivity.
Q.24 Enlist the applications of super conductors.
Q.25 Explain manufacturing of thick film capacitor.
Q.26 Explain Meissner Effect.
Q.27 Explain the crystal structure of superconductor.
Q.28 Write different types of nuclear reactors.
Q.29 Write working of fuels elements in nuclear reactor.
Q.30 Give the detail classification of ferrites with example.
Q.31 Explain manufacture of bioceramics.
Q.32 Describe electro-optic ceramics.
Q.33 Describe manufacture of hard ferrites.
Q.34 With exam write what are bio-ceramics?
Q.35 Write multilayer ceramics manufacturing process.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the applications & properties of Super conductors.
Q.37 Explain the preparation, application and properties bio-ceramics.
Q.38 Explain manufacturing of thermistors with neat flow diagram.

No. of Printed Pages : 4 180455/120455/030455
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5th Sem. / Ceramic Engg.

Subject:- Modern Ceramics

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Modern ceramics are made from
a) Pure material b) Normal material
c) Impure material d) None of these

Q.2 Heat energy can be obtained by
a) Nuclear conductivity
b) Nuclear insulator
c) Nuclear resistance
d) Nuclear fission

Q.3 In nuclear reactor speed of fast moving neutrons are controlled by
a) Control rods b) Moderators
c) Coolant d) All of above

Q.4 Superconductor can be used in _____
a) Transmission b) Power generation
c) Mobile towers d) All of these

Q.5 Examples of ceramic material used in safety rods is

a) Refractory borides
b) Rare earth metal oxide
c) Boron carbides
d) All of these

Q.6 Dental ceramics include

a) Tooth cap b) Tooth
c) Tooth cavity d) All of these

Q.7 Varistors are electronic components used to protect electronic circuit against _____.

a) Water b) Temperature
c) Air d) Over voltage

Q.8 Which of the following are piezoelectric substance?

a) Barium Titanate b) Lead Titanate
c) Lead Zironate d) Cadmium Sulphate

Q.9 Fuel elements in nuclear reactor can be in shape of

a) Rods b) Pallets
c) Rings d) All of these

Q.10 The temperature at which a conductor becomes superconductor is called

a) Curie temperature
b) Superconducting temperature
c) Min temperature
d) Critical temperature

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Nuclear reactor is used to produce Electricity. (True/False)

Q.12 Super conductor is example of modern ceramics. (True/False)

Q.13 Resistance of super conductor is Zero. (True/False)

Q.14 Thermistor is temperature sensitive resistor. (True/False)

Q.15 Ferrite is a example of modern ceramic material. (True/False)

Q.16 Hard ferrites are used in making speakers. (True/False)

Q.17 Superconductor is a perfect diamagnetic material. (True/False)

Q.18 Variators are use to protect sensors from high voltage (True/False)

Q.19 Dielectric materials have high thermal conductivity. (True/False)

Q.20 Modern ceramic products are made from pure materials. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Give classification of modern ceramics.