Q.22 Define Ferrites.

Q.23 Differentiate modern and traditional ceramics.

Q.24 Difference between pyroelectric & ferroelectric.

Q.25 What are the capacitor.

Q.26 Write applications of soft ferrites.

Q.27 Explain developing of high super conductivity.

Q.28 What are fuel elements in nuclear reactor?

Q.29 Explain in brief manufacture of bioceramics.

Q.30 Explain in brief meissner effect.

Q.31 Write applications of Bio-ceramics.

Q.32 Explain the properties of super conductor.

Q.33 List applications of super conductors.

Q.34 Draw flow diagram for manufacturing of thermistors.

Q.35 Differentiate soft and hard ferrites.

SECTION-D

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

Q.36 Explain manufacture of soft ferrites.

Q.37 Explain working of nuclear reactor and write ceramics materials used in various parts of nuclear reactor.

Q.38 Explain manufacture of multilayer ceramics.

Roll No. .....

5th Sem / Ceramic
Subject:- Modern Ceramics

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Modern Ceramics material are used in

a) Space b) Automobiles

c) Nuclear reactors d) In all of these

Q.2 Bio ceramics are materials which are used for ____ diseased body parts.

a) Repair b) reconstruction

c) Both A& B d) None of these

Q.3 Function of control rod in nuclear reactor is to

a) Start nuclear reactor b) Stop reactor

c) Absorb electrons d) All of these

Q.4 PTC stands for

a) +ve temp conductor

b) +ve thermal Coefficient

c) Permanent temp change

d) None of these

Q.5 Superconductivity was first observed by

a) H.K. Onnes b) Ohm

c) Ampere d) Schrieffer

Q6 Varistors are used in

a) Timers b) Computers

c) None of these d) in both A & B

Q.7 Nuclear energy is be obtained by

a) Nuclear conductivity

b) Nuclear insulator

c) Nuclear resistance

d) Nuclear fission

Q8 The newer ceramic are fabricated (shaped) by

a) isostatic pressing b) hot pressing

c) Tape casting d) All of these

Q.9 Which product is not a modern ceramics?

a) Wall tiles b) Floor tiles

c) Sanitary ware d) All of these

Q.10 Hard ferrites have

a) Low power loss b) Low resonance

c) Low coactivity d) high coercivity

SECTION-B

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

Q.11 Resistance of super conductor is zero. (True/False)

Q.12 Dielectric materials have high thermal conductivity. (True/False)

Q.13 Thermistor is temperature sensitive resistor. (True/False)

Q.14 Speed of fast moving neutrons are controlled by moderators. (True/False)

Q.15 Isostatic pressing is used to shape ceramic materials. (True/False)

Q.16 PLZT means Lead Lanthanum Zirconia Titanate. (True/False)

Q.17 Moderators are used to stop nuclear reactors. (True/False)

Q.18 Quartz is used in dental ceramics. (True/False)

Q.19 Soft ferrites are anti-ferromagnetic material. (True/False)

Q.20 Nuclear fission reaction takes place in nuclear reactor. (True/False)

SECTION-C

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

Q.21 List functions of ceramic control rods.