No. of Printed Pages : 4 220453B
Roll No. .....

5th Sem. / Ceramic
Subject : Modern Ceramics

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

Q.1 Modern ceramics are made from

a) Pure material b) Normal material

c) Impure material d) None of these

Q.2 Superconductor can be used in

a) Power transmission b) Power generation

c) Mobile towers d) All of these

Q.3 _____are used to reduce speed of fast fission neutrons.

a) Moderators b) Fuel elements

c) Control Rods d) All of the above

Q.4 A super conductor has zero permeability and expels (eject) magnetic line of force emitted from a nearby magnet or coil. this phenomenon is knows as _____effect.

a) Magnetic b) Irradtion

c) Electronics d) Meissner

Q.5 Classification of modern ceramics included_____.

a) Superconductors b) Nuclear Ceramics

c) Bio Ceramics d) All of these

Q.6 The functions of control rods in Nuclear reactor is to

a) Start nuclear reaction

b) Stop nuclear reaction

c) To maintain chain reaction from becoming violent

d) All of these

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Speed of fast moving neutrons is controlled by moderators. (True/False)

Q.8 Isostatic pressing is used to shape Modern ceramic materials. (True/False)

Q.9 Super conductors have zero resistance. (True/False)

Q.10 Superconductor is a perfect diamagnetic material. (True/False)

Q.11 Dental ceramics applications include filling cavity of teeth. (True/False)

Q.12 Hard ferrites are used in ____. (Speakers, Mobile Charger)

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Tell the difference between Modern and Traditional Ceramics.

Q.14 Discuss scope of modern ceramics.

Q.15 Explain meissner effect with diagram.

Q.16 List functions of control rods in nuclear reactors.

Q.17 Discuss irradiation effect in nuclear reactors.

Q.18 Differentiate hard and soft ferrites.

Q.19 Write uses of soft ferrites.

Q.20 Write properties and uses of dental ceramics.

Q.21 Compare organic and in organic membranes.

Q.22 Briefly discuss manufacture of bio ceramics.

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 Name ceramics materials used in various parts of nuclear reactors?

Q.24 Explain phenomenon, properties and uses os superconductors.

Q25 Explain the manufacture of soft ferrites.