No. of Printed Pages : 4 220453B

Roll No. .....

5th Sem / Ceramic Engg

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 material are used in

a) Space b) Automobile

c) Nuclear reactors d) All of these

Q.2 Modern ceramics are made from raw material of

a) control purity b) Impure raw materials

c) Both A & B d) None of the above

Q.3 The resistance of a superconductor is

a) 0 ohm b) 1 ohm

c) 2 ohm d) 3 ohm

Q.4 Superconductivity was first observed by

a) H.K. Onnes b) Ampere

c) Ohm d) Schrieffer

SECTION-D

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

Q.23 With the help of flow diagram, explain manufacture of Hard ferrites.

Q.24 Explain in brief manufacture of bio ceramics.

Q.25 Write Ceramics material used in various parts of nuclear reactor.

Q.5 Superconductors can be used in

a) Beam weapons

b) Electric current transmission

c) Power generation

d) All of the above

Q.6 Dental Ceramics application include

a) Filling the tooth cavities

b) Capping of teeth

c) Making artificial teeth

d) All of above

SECTION-B

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

Q.7 Pure materials are used to make modern ceramic products. (True/False)

Q.8 Raw materials of modern ceramics are of controlled purity and_____ . (Size, colour)

Q.9 Superconductors can be used in defense. (True/False)

Q.10 The nuclear_____ reaction takes place in nuclear reactor. (True/False)

Q.11 Bio-ceramics are used for repair and reconstruction of damaged body parts. (True/False)

Q.12 Soft ferrites have_____ coercivity as compared to hard ferrites. (Low / High)

SECTION-C

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

Q.13 Write scope and classification of modern Ceramics.

Q.14 List five modern ceramic products.

Q.15 In brief explain meissner effect.

Q.16 State difference between hard and soft ferrites.

Q.17 Why moderators are used in nuclear reactors? Explain.

Q.18 Classify Bio Ceramics.

Q.19 Enlist properties of superconductors.

Q.20 Write uses of Hard or soft ferrites.

Q.21 Write applications of super conductors.

Q.22 Tell functions of control rod.