

Q.21 Write applications of dental Ceramics.

Q.22 Write uses of Hard ferrites.

### SECTION-D

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

Q.23 How will you manufacture soft ferrites? Explain.

Q.24 Explain manufacture of Multi layer Ceramics.

Q.25 Write different Ceramic materials used in nuclear reactor.

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(4)

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### 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 \_\_\_\_\_ are used to absorb fission neutrons in nuclear reactors

- a) Control Rods                      b) Steel
- c) Air                                      d) All of the above

Q.2 The resistance of \_\_\_\_\_ is zero.

- a) Super conductors                  b) Insulator
- c) Wood                                      d) Normal conductor

Q.3 Dental Ceramics materials are used for

- a) Filing the tooth cavities
- b) Capping of teeth
- c) Making artificial teeth
- d) All of above

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Q.4 Modern ceramics are made from \_\_\_\_\_ raw materials.

- a) Pure raw materials of controlled purity
- b) Impure raw materials
- c) Both A & B
- d) None of the above

Q.5 The functions of control rods in Nuclear reactor is to

- a) Start nuclear reaction
- b) stop nuclear reaction
- c) To maintain chain reactor from becoming violent
- d) All of these

Q.6 Superconductors are be used in

- a) Beam weapons
- b) Electric current transmission
- c) Power generation
- d) All of the above

### SECTION-B

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

Q.7 Soft ferrites have low coercivity as compared to hard ferrites. (True/False)

Q.8 Uranium dioxide is used as fuel in nuclear reactor. (True/False)

Q.9 Super conductors have \_\_\_\_\_ resistance. (Zero /High)

Q.10 Bio ceramics are used for repair and reconstruction of body parts. (True/False)

Q.11 Modern ceramics are used in nuclear reactors. (True/False)

Q.12 Hard ferrites are used in speakers. (True/False)

### SECTION-C

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

Q.13 Differentiate between Modern and Traditional Ceramics.

Q.14 Write functions of control rods.

Q.15 Explain meissner effect of super conductor.

Q.16 Tell the difference between Organic and inorganic membranes.

Q.17 List the difference between hard and soft ferrites.

Q.18 Explain manufacture of grinding wheels in brief.

Q.19 Discuss catalytic convertor.

Q.20 List five modern ceramics products.