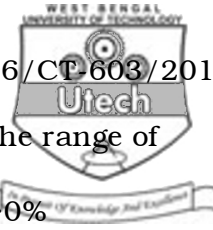




- iii) Vitreous sanitary ware has close pores in order of
- a) less than 0.5%
 - b) more than 10%
 - c) between 4 and 5%
 - d) less than 10%.
- iv) Monoporosa is
- a) fast fired wall tiles
 - b) double stage fired wall tiles
 - c) recrystallised mullite
 - d) none of these.
- v) Which of the following operation is essential for tiles preparation ?
- a) spray drying
 - b) pugging
 - c) sintering
 - d) none of these.
- vi) Yellow core defect is mainly due to
- a) insufficient oxidation
 - b) insufficient reduction
 - c) presence of high volatile & organic matters
 - d) all of these.
- vii) Green strength is more when body is made with
- a) defloccuted slip
 - b) flocculated slip
 - c) without any electrolyte
 - d) none of these.



viii) Close porosity of a vitreous body lies in the range of

- a) less than 0.5% b) 0.5 – 1.0%
- c) 1 – 3% d) 4 – 6%.

ix) Working mould is made with

- a) Gamma Plaster of Paris
- b) Beta Plaster of Paris
- c) Alpha Plaster of Paris
- d) Gypsum.

x) Lamination crack is due to problem at

- a) firing process b) shaping process
- c) filter press operation d) extrusion process.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Write a short note on spark plug insulators.
3. What is kiln furniture ? Discuss the characteristics of ideal materials for kiln furniture used in ceramic industries.
4. Write a short note on wear resistant ceramics.
5. Discuss the role of wollastonite for the fast firing wall tiles.
6. Discuss the firing of cordierite from clay-talc mixture.



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

7. Discuss operation of a tunnel kiln along with temperature schedule and pressure curve. Why is reducing atmosphere maintained ? Black core defect is observed after firing — what are the possible causes for it and how will you overcome this ?
10 + 1 + 4
8. Write the characteristics of a sanitary ware. Give the composition of body and glaze. Write the manufacturing process of it along with process flow chart. Write different oxidation & decomposition reactions for a whiteware body. What is dunting and how will you overcome this ?
1 + 2 + 6 + 3 + 3
9. What are the raw materials used for the manufacture of a cordierite body ? How does cordierite fraction increase by adopting special firing technique ? Why is mullite-cordierite composite of special industrial interest for selection of kiln furniture ? Why is cordierite body difficult to glaze ?
3 + 6 + 4 + 2
10. Compare the single fast firing over double stage firing for wall tile production in the Indian scenario. Give flow-chart for the production of wall tiles in industry. Why flint is pre-calcined ?
6 + 5 + 4
11. Define biocompatibility. Discuss clinical significance of dental ceramics. Discuss the ceramic materials used in dental ceramics. Discuss the manufacture of dental ceramics.
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