

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Sem-I [Ceramic Technology] examination January 2009

Subject code: 310010

Subject Name: Ceramic Materials

Date: 01 / 01 / 2009

Time: 11:00am-1:30pm

Instructions:

Total Marks: 70

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

Q.1. (A) Explain the effect of heat on Quartz. (07)
(B) What is grog? Why grog is used in refractory brick making? (07)

Q.2. (A) Mention the various raw materials used for glass manufacturing. (07)
(B) What are the various methods of mining? Mention. (07)

OR

(B) Describe the various properties of feldspar, ballclay and quartz. (07)
Q.3. Write informative notes on the following: (14)

- (i) Grading of sand.
- (ii) Physical weathering.
- (iii) Hard abrasives and soft abrasives.

OR

Q.3. Write short notes on the following: (14)
(1) Classification of clay.
(2) Various forms of gypsum.
(3) Soda ash.

Q.4. Describe the following raw materials with their molecular formula and uses (14)
1. Fire Clay. 2. China Clay. 3. Lime Stone.

OR

Q.4. Write short notes on the following- (14)
1. Glaze Materials 2. Vitreous Enamel. 3. Refractory Materials.

Q.5. Answer the following: (14)
1. What is cullet? Why cullet is used in glass manufacturing.
2. Give the melting point of Bauxite, Felspar, Red clay, Fire clay, & Silica.

OR

Q.5. 1. Describe the occurrences of Ball clay, Fire clay, & Bauxite in Gujarat State. (14)
2. Write the various raw materials used for manufacturing pottery products.
