

IV B.Tech II Semester Supplementary Examinations, April/May 2005

GEMS AND PRECIOUS STONES
(Metallurgy & Material Technology)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the differences between gems and diamonds.
(b) Describe how gems are originates from.
 - i. Beryl
 - ii. Coral and
 - iii. Topaz.
2. (a) Explain the following properties of GEM STONES.
 - i. Hardness
 - ii. Chemical Properties
 - iii. Crystal structure and Transparancy.(b) Write a short notes on:
Secondary 'GEMS'.
3. Explain about the composition, appeance and physical and other details for the following:
 - (a) Diamond;
 - (b) Corundum and
 - (c) Ruby
4. Explain the following:
 - (a) CHRYSO BERYL
 - (b) TOPAZ
 - (c) EMERALD.
5. Describe the following:
 - (a) GARNET
 - (b) AMETHYST
 - (c) OPAL.
6. (a) What are artificial diamonds? How are they produced. Bring out the differences between natural diamonds and artificial diamonds.
(b) Explain the following with respect to the following i.e.
 - i. Value

- ii. Occurance
- iii. Color
- iv. Destructive features and. Chemical properties.

7. Describe the following:

- (a) Pink corals
- (b) Synthetic gems
- (c) Natural pearls
- (d) Organic gems.

8. Write short notes on the following:

- (a) Golden BERYL
- (b) Star rubies
- (c) Blue corals
- (d) GEMSTONES.

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