

[01 – 2113]

II/IV B.E. DEGREE EXAMINATION.

First Semester

Civil Engineering

BUILDING MATERIALS AND CONSTRUCTION

(Common for Civil and Civil Environmental
Engineering and M.S. Civil Engineering)

(Effective from the admitted batch of 2006–2007)

Time : Three hours

Maximum : 70 marks

Question No.1 is compulsory. Write all the bits in the
same order at one place.

Answer any FOUR questions from remaining Seven
questions.

All questions carry equal marks.

1. (a) What is difference between setting and hardening of Portland cement?
- (b) List the different types defects in wood and timber.
- (c) What is difference between Asphalt and Bitumen?

- (d) What is meant by "FAL-G Block"?
- (e) What are the basic constituents of cement concrete? State their functions.
- (f) What is Distemper? State its use.
- (g) What are constituents of varnishes?

- 2. (a) What is OPC? Explain the chemical and physical analysis of OPC.
- (b) What are acoustical materials? Explain their requirements.
- 3. (a) Explain in detailed the need and various methods of seasoning of wood.
- (b) What are different types of glass? Explain their applications in building industry.
- 4. (a) What are defects of painting? Mention their causes and remedies.
- (b) What are various types of plastics and their civil engineering?
- 5. (a) Explain the Flemish bond and English bond in brick masonry with neat sketches.
- (b) What is meant by bearing capacity of soil? Explain different types of foundation with their suitability in construction industry.

6. (a) What are advantages and disadvantages of rubber flooring?
- (b) What are tests to be conducted cement concrete? Explain mix design procedure for M₂₀ concrete mix.
7. (a) Draw a neat sketch of a king post. Mention its typical features.
- (b) What are the different types of stairs? Explain their suitability in building industry with neat sketches.
8. Write short notes on
- (a) Thermal insulation
- (b) Grillage foundation
- (c) Madras terrace roof.