

MODEL QUESTION PAPER

MFC4

I Semester M.TECH Examination, August 2011 PAVEMENT MATERIAL

Time: 3 Hours

Max. Marks: 75

GROUP A : Answer any three questions

- Q.1 What is seasoning of timber and why is seasoning done?
- Q.2 State the composition and method of manufacture of terra-cotta and stone ware pipes.
- Q.3 What considerations will guide you in selecting a suitable time for building purposes? Discuss the various methods of seasoning & preserving timber.
- Q.4 What are dry rot and wet rot in timber? How are they caused and prevented?
- Q.5 What considerations will guide you in selecting a suitable timber for building purposes? Discuss various methods of seasoning of timber.

GROUP B : Answer any three questions.

- Q.6 Describe any process by which lime is manufactured from kantar.
- Q.7 Describe the process of manufacture of bricks right from collection of earth to burning in a bull's trench kiln?
- Q.8 What is Varnish? Why it is used? Classify different kinds of varnish and give a brief description of each.
- Q.9 Write short notes on any three types of non fusion metals and describe the uses of alloy made with those?
- Q.10 What do you mean by "hardness of water"? What are the causes of hardness? What are the evil effects of hardness?

GROUP C: All Questions are Compulsory.

Q.11 Fill in the blanks

- (i) _____ rocks are derived from sedimentary rocks.
- (ii) The presence of cementite increases _____ in cast iron.
- (iii) Maximum acceptable concentration of silver present in water is _____ mg/l.
- (iv) Low carbon steel contains up to _____ % carbon.
- (v) Hand compaction is always preferred, because use of vibrator may cause _____ of the aggregates.

Q.12 Multiple choice question.

- (i) Carbonates and bicarbonates of sodium and potassium induces _____.
 - (a) Temporary hardness
 - (b) Permanent Hardness
 - (c) Both a and b
 - (d) None of the above
- (ii) Basalt is a compact _____ rock.
 - (a) Igneous
 - (b) Sedimentary
 - (c) Metamorphic
 - (d) Granite.
- (iii) Maximum allowable slumps for pavements and heavy mass concrete construction is _____.
 - (a) 5.0 cm
 - (b) 7.5 cm
 - (c) 15.0 cm
 - (d) 10.0 cm
- (iv) The width of road pavements, depends upon _____.
 - (a) Width of traffic lane
 - (b) number of traffic
 - (c) Width of median strip
 - (d) all the above
- (v) A paste of lime & surki is known as _____.
 - (a) Mud mortar
 - (b) Composite mortar
 - (c) Lime mortar
 - (d) Surki mortar.

Q.13 True or false

- (i) PH value of water greater than 7 is called as acidic water.
- (ii) Concrete should be tested for crushing after 28 days curing.
- (iii) Excavation of stones from natural rock is known as dressing.
- (iv) Fire bricks are made from a mixture of sand and hydrated lime.
- (v) The presence of clay in the mortar decreases cohesive strength.
