

Total No. of printed pages = 2

CT-501/CT/5th Sem/2013/M

## CONSTRUCTION TECHNOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer question No.1 and any *four* from the rest.

1. (a) At what situation pipe arch single or multiple is used ? 4
- (b) What is the use of — 3+3=6
  - (i) A V-frame in the construction of steel beam bridge ?
  - (ii) A crane in the construction of steel arch bridge ?
2. (a) Define beam bridge. 3
- (b) How bending, shear, buckling and torsion affect bridges ? 8
- (c) With suitable diagrams show all the components of a bridge. 4

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3. (a) What do you understand by wide trench installation and subtrench installation in culvert construction ? 6
- (b) How transverse or circumferential cracks occur in culvert pipes ? 6
- (c) What do you understand by abutment of bridge ? 3
4. (a) How subgrade is being layed in the construction of highways ? 7
- (b) Discuss the various interlayer coats. 8
5. (a) For what purpose aggregate spreaders and rollers are used in highway construction ? 6
- (b) How railway tracks are layed ? 9
6. (a) What are the causes of failure of weirs ? 7
- (b) Define : 8
- (i) Non-gravity weirs.
- (ii) Storage dams
- (iii) Regid dams
- (iv) Barrage.