

B.Tech. Civil (Construction Management)

Term-End Examination

June, 2012

**ET-521(A) : PLANNING CONSTRUCTION
OF BUILDINGS**

Time : 3 hours

Maximum Marks : 70

Note : There are two parts in the question paper. Part-A is compulsory. Attempt any four questions from Part-B carrying equal marks.

PART-A

1. Prepare a suitable proportioned and dimensioned plan of a bank building whose details are as given below : 30
- (a) Public space for people for movement, waiting and for making transactions,
 - (b) Work space for bank staff
 - (c) One room for Branch Manager
 - (d) One strong room for valuables and cash
 - (e) Two individual office rooms for the other senior personnel.
 - (f) One Locker/ Vault room
 - (g) Two staff Toilets - separate for men and women
 - (h) Drinking water/facilities area
 - (i) One small canteen for staff

Following considerations are important while planning of the Bank.

- (a) Public - space and the work - space should be near to the entrance to facilitate smooth contact between bank staff and customers.
- (b) Strong room, vault/locker room and record room should be kept inside, away from public zone.

PART-B

2. A Doglegged staircase is to be provided in an office building. The stairwell has the dimensions 2.4×5.5 m. The vertical distance between the floors is 3.2 mtr. Draw a plan of the proposed stair case showing the dimensions. 10
3. (a) Explain the construction of a wind - rose diagram for a particular site. 5
- (b) Explain important site exploration activities to be taken up before building a cinema theatre in a semi-urban location. 5
4. (a) What is the purpose of having Fire - Resistance regulations for a residential building ? 5
- (b) Discuss any two important planning considerations in designing of a school building for students of class I to V. 5
5. (a) Enlist some roofing materials. Mention suitability of use for any one of them. 5
- (b) What are various causes for settlement of foundations in buildings ? 5
6. (a) What are the different kinds of thermal insulation provided in buildings ? 5
- (b) Name different types of paving materials. 5

7. Write short notes on *any four* of the following : 4x2½=10
- (a) Humidity and Relative Humidity
 - (b) Classification of buildings on occupancy criteria (NBC - 1983)
 - (c) Insulation with reference to Air conditioning
 - (d) Components of oil based paints
 - (e) Different materials used to finish ceilings in buildings.
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