

**B.Tech. Civil (Construction Management) /
(BTCLEVI)**

Term-End Examination

December, 2017

00543

**ET-521(A) : PLANNING AND 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 an assembly building whose details are as given below : 30
- (a) Main entrance foyer
 - (b) Assembly/auditorium proper with a balcony
 - (c) Activity areas namely storage, dressing rooms and backstage
 - (d) Storage for new or old furniture and locker room
 - (e) Canteen
 - (f) Toilet facilities for visitors and for stage/backstage persons

Following considerations are important while planning of the assembly building :

- (i) The foyer and auditorium should be adjacent to each other so that access to them from either place is direct.
- (ii) Secondary functional spaces like the canteen, restaurants, toilets and waiting space may form part of the foyer.
- (iii) The entry of audience should be separate from that of performers.
- (iv) Likewise, performers should have independent entry/exit to green rooms/dressing rooms, and their toilet facilities, etc.

PART B

- 2. (a) Distinguish between ultimate, safe and allowable bearing capacities. 4
- (b) Explain the important site exploration activities to be taken up before building a cinema theatre in a semi-urban location. 6
- 3. Why do we require bond in brick masonry ? Draw the plan of one brick wall in English bond and also draw the elevation of the wall with corner and stopped end in English bond. 10
- 4. (a) Draw a dimensional sketch of a solid core type flush door. 6
- (b) What do you understand by air change ? 4



5. (a) How will you decide about the dimensions of treads and risers in stairs ? 4
- (b) What is the purpose of having fire-resistance regulations for a residential building ? 6
6. Describe the Principles of Planning used in buildings in detail. (Provide sketches wherever required) 10
7. (a) Name the different types of roofing materials available. 5
- (b) How do you insulate air-conditioning pipes ? 5
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