

Hospital Management Stream: Batch 2019-2021

**SUBJECT: Hospital Planning and Design**

**End Term Examination**

**Time allowed: 2 hrs**

**Max. Marks: 70**

**NOTES –**

1. *Please read all the questions carefully before answering*
2. *Choose only ONE department in question 3 (a)*
3. *The layout diagram is to be uploaded as a pdf*

**Part 1**

**1. Select the correct answer**

**20 marks (2marks each)**

- (i). All the following are equipment for Radiology department except
  - a. C T Scan
  - b. MRI
  - c. Ultrasound
  - d. LINAC
- (ii). To ensure functional efficiency, the Accident & Emergency department in a 500-bed hospital multi-speciality hospital should be
  - a) Separate from the OPD
  - b) Part of the OPD
  - c) Depends on the distance from the road
  - d) None of the above
- (iii). Which of the following is not part of OT Zoning concept -
  - a. Clean zone
  - b. Sterile zone
  - c. Protective zone
  - d. Patient zone
- (iv). In case of fire in a hospital, the ramps should be used -
  - a. Always
  - b. Never
  - c. Sometimes
  - d. Not significant
- (v). A Pneumatic Tube Transport System in a hospital is used for transporting all except -
  - a. Medicines
  - b. Laboratory samples

- c. Laundry
  - d. Patients
- (vi). For planning purposes, the average number of patients expected to visit the OPD of a general hospital are –
- a) 2-3 for every authorised bed
  - b) 10 for every authorised bed
  - c) 10 for every 100 authorised beds
  - d) None of the above
- (vii). The following department is sometimes called the “**Shopping Window**” of the hospital –
- a) Operation Theatre
  - b) ICU
  - c) OPD
  - d) CSSD
- (viii). HEPA filters are used in several areas of hospitals, especially in the OT. In the context of filters, **HEPA** is an abbreviation of –
- a) Hospital Electric Process Assembly
  - b) High Efficiency Particulate Air
  - c) High Energy Pathway Access
  - d) None of the above
- (ix). Positive pressure is planned in all the following areas of the hospital except
- a) Operation Theatre
  - b) ICU
  - c) Burns ward
  - d) Infectious Diseases Isolation Ward
- (x). All the following are true regarding the healthcare scenario in India, except –
- a) Private sector dominates the existing bed capacity
  - b) The burden of disease is gradually shifting from communicable diseases to non-communicable diseases
  - c) The rural and urban populations have equal access to specialist care
  - d) The government plans to increase public health spending to 2.5% of the GDP by 2025.

## **Part 2**

2. (a) What are the steps in planning of a hospital? Briefly explain the major steps. **(15 marks)**

**(b)** M/s Acme plan to build a hospital in a metro city on a plot of size 50m \*100m. If the permitted FAR= 3, ground coverage 40%, and the maximum building height permitted is 100 feet, can the complete FAR be utilized? Briefly explain with calculations.

(Note - Consider 10 feet as the height of each floor).

**(5 marks)**

3. (a) Explain the planning parameters for OPD / A&E (choose ONE of the departments) in a multi-speciality 300-bed hospital. **(15 marks)**
- (b) Give a rough schematic diagram of the planned layout. **(5 marks)**
- (Note - Diagram is to be uploaded as a scanned pdf )**

**Part 3**

4. Write short notes on ANY TWO **(5marks each)**
- a) Architects Brief
  - b) FAR (Floor Area Ratio)
  - c) Hospital commissioning phase

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