a. GENERAL FEATURES

1. Manager-Responsible person of the Pathology Laboratory should be a pathologist, and he/she should be responsible to a superior authority ((head psysician). Laboratory head is responsible for;

   i. Safety,

   ii. Managerial work,

   iii. Education,

   iv. Quality Assurance.

b. PATHOLOGIST

1. Maximum 2000 surgical material and 1500 cytology a year must be provided for every pathologist at full time working training hospitals.

   i. These numbers must be lower if there is subspeciality branches.

2. These numbers must be calculated not per tissue number but per case.

c. TECHNICIAN

1. Pathology laboratory technician(s) must be at least high school graduate(s). Health College Medical Laboratory Department or Pathology Laboratory Technicianship College graduates must be preferred.
2. All personnel must be well educated. Positions in the work process and terms of references for all workers must be determined in written form.
3. An experienced tecnician with only routine work must be responsible for maximum 4000 surgical and 3000 cytology material in a year.
4. Separate technician(s) for histochemistry, immunohistochemistry, immunflouresence, frozen section, molecular and cytogenetic methods, and autopsy must be assigned.

d. SECRETARY

1. There should be a secretary(ies) responsible for recording, report writing, result rendering and correspondence work.
2. Ideal number is to have a number of secretaries equal to the number of full-capacity working specialists.

e. LABORATORY PHYSICAL ENVIRONMENTS

1. Plate with the name and identity of the laboratory, personnel board and announcements regarding techniques applied and reporting period should be placed where they can be easily seen.
2. There should be a place tag on all of the rooms.
3. Laboratory floor should be covered with seramic, marble or chemical-resistant PVC. Workbenches should also be covered with material that is resistant to heat, cuts and chemicals.
4. There should be sufficient water, electricity, light, air flow (fume hood or aspirator) system.
5. Material receiving and report delivery section should be in a room or section which is separate from the laboratory and from which laboratory cannot be seen.
6. A separate macroscopy room
7. A separate tissue processing and embedding space
8. A separate staining space
9. A separate coverslipping space
10. A separate microscopy room
11. A separate technician room

12. A separate material (tissue) storage space
13. Block and slide archieve room
14. A separate chemical storage space
15. A separate flammable-dangerous substance storage space
16. A separate document archieve space
17. Secretary room (could be the same space where materials are received)
18. Space for frozen apparatus
19. Room for tissue processing, staining, covering apparatus
20. Immunohistochemistry space
21. Space for multi-headed microscope and/or training space with close-circuit television
22. Cytology preparation space
23. Microscopy room
24. Common room
25. Autopsy room

    i. Shower, dressing room

    ii. Report and preparation room

    iii. Organ exhibition room

    iv. Cooling room

    v. Tissue storage room

f. LABORATORY EQUIPMENT

1. Air conditioned cross section space
2. Safety cabin
3. Material storage cabinets
4. Washing taps
5. Fixtures (knife, penset, scalpel handle, scalpel head, dissection scalpel, scissors, coping saw, etc. , various sizes glass or hard plastic lidded jars, Petri's dish, challet, beaker, flasks, pippettes, measuring cylinder, ruler, scale, etc.)
6. Consumables (slide, lamel, casette, brush, slide writing pen, alcohol, xylol, formaline, paraffine, staining solutions, covering resin, absorbent paper, disposal containers, etc.)
7. Adequate free spaces
8. Tissue processing apparatus (or equipment)
9. Mikrotom (s)
10. 56 ^{0}C sterilizer
11. Water bath
12. Tissue embedding apparatus (or equipment)
13. Staining apparatus (or equipment)
14. Covering apparatus (or equipment)
15. Centrifuge apparatus
16. Refrigerator
17. Deep freezer
18. pHmeter
19. Alcoholometer
20. Solution preparation apparatus
21. Toxic disposal container (or system)
22. Macroscopic material disposal system
23. Microscope
24. Secretarial writing system
25. Tissue, paraffine block, slide, report archiving storage and system
26. Fire extinguisher
27. Chemical disinfectant
28. Protective clothes
29. First aid cabinet
30. Back leaning, adjustable seats
31. Frozen apparatus
32. Mixer (vortex)
33. Cytocentrifuge

34. Photographing unit
35. Microwave oven
36. Autoclave
37. Immunflorescent microscope

Followings are the things that should be available according to needs:

38. Immunohistochemistry apparatus
39. Drying oven
40. Liquid nitrogen tank
41. Molecular and cytogenetic laboratory
42. Electron microscopy room

Following are the properties that are suggested to be provided according to the facilities of the unit:

43. Fast washing system (for toxic and caustic chemicals)
44. Eye washing station and eye washing apparatus
45. Safety shower
46. Automatic (fire) watering system

g. LABORATORY PHYSICAL ENVIRONMENT MINIMUM SIZES

1. Spaces suggested for pathology laboratory (These spaces are for a pathology laboratory, in a hospital that serves a region with a population of 100.000 - 500.000, which has an annual 15.000 - 20.000 surgical material capacity and with 3 specialists working. Adaptations should be made according to population served, and surgical material capacity and the number of specialists, teaching staff, and residents)

Region	**Area (m^2)**
General laboratory area (3 microtomes)	40
Histopathology laboratory (staining, etc.)	12
Tissue processing (and if available staining and covering) equipment (s)	8 (15)
Frozen equipment space (or a separate room)	4 (10)
Histochemistry and immunohistochemistry space-room	15
Macroscopy	25
Cytopathology	10
Microscopy	25
Technician room	15
Physician room (each 10 m^2x3)	30
Specialist student room	12
Secretary room	12
Chemical substance storage and preparation	15
Slide, block and report archieve	20