

Contents

Forewords by Dr Pravin Suryawanshi, Prof (Dr) D Maruthu Pandian, Dr Santhosh John Abraham and Dr Tejaswini Vallabha	vii
Preface to the Seventh Edition	ix
Preface to the First Edition	x
Competencies	xix

VOLUME 1

SECTION I: BASIC PRINCIPLES OF SURGERY

1. Doctor–Patient Relationship	3	16. Postoperative Complications	56
2. Communication and Counselling	6	□ Postoperative fever 56	
3. Ethics in General Surgery	10	□ Postoperative jaundice 58	
4. Surgical Audit	14	□ Postoperative hypoxia and desaturation 60	
5. Principles and Steps of Clinical Research in General Surgery	16	□ Perioperative acute kidney injury 61	
6. Perioperative Care	19	17. Shock and Haemorrhage	64
7. Pain Management	22	□ Haemorrhage 65	
8. Biohazard Disposal/Biomedical Waste Management	27	□ Indicators of fluid responsiveness 73	
9. Investigation and Interpretation	29	18. Blood Transfusion	77
10. Asepsis, Sterilization and Disinfection	30	□ Complications of blood transfusion 79	
11. Nutrition in Surgical Patients	34	□ Autologous transfusion 80	
□ Perioperative nutritional support 40	38	□ Hyperbaric oxygen 81	
□ Route of administration of nutrition 40		19. Acid–Base Balance	83
12. Prophylactic and Therapeutic Antibiotics in Surgery	44	□ Basic definitions 83	
13. Day Case/Care Surgery	47	□ The Henderson and Henderson-Hasselbalch equations 83	
14. Principles of Safe General Surgery	50	□ Regulation of acid–base balance 84	
15. Metabolic Response to Injury	52	□ Acid–base disorders 84	
		□ Rapid interpretation of an ABG report 87	
		20. Fluids and Electrolytes	90
		□ Normal physiology 91	
		□ Water regulation (regulation of volume) 91	
		□ Disturbances of volume 91	
		□ Regulation of sodium concentration 92	
		□ Disturbances in concentration 92	
		□ Disturbances in composition of body fluids 94	
		□ Perioperative fluid therapy 97	

SECTION II: GENERAL SURGERY

21. Wound, Keloid and Hypertrophic Scar	103	23. Tetanus and Gas Gangrene	128
□ Compartment syndrome 108		□ Tetanus 128	
□ Hypertrophic scar and keloid 109		□ Gas gangrene 130	
22. Acute Infections, and Surgical Site Infections	113	24. Hand and Foot Infections	135
Transmissible Viral Infections		□ Superficial infections 135	
□ Abscess 115		□ Deep infections 137	
□ Ludwig angina 118		□ Foot infections 141	
□ Vincent's angina 119		25. Chronic Infectious Disease and Tendon Transfer	144
□ Other special types of pyogenic infections 118		□ Actinomycosis 144	
□ Surgical site infections (SSIs) 122		□ Leprosy (Hansen's disease) 146	
□ Transmissible viral infections 124		□ Tendon transfer 148	

26. Differential Diagnosis of Leg Ulcer and Pressure Sore	151	34. Cystic Swellings, Neck Swellings and Metastasis Lymph Node Neck	298
□ Clinical examination of an ulcer 152		□ Cystic swellings 298	
□ Management of ulcer 154		□ Transilluminant swellings in the body 306	
□ Traumatic ulcer 156		□ Differential diagnosis of midline swellings in the neck 310	
□ Venous ulcer 156		□ Swellings in submandibular triangle 315	
□ Arterial/ischaemic ulcer 156		□ Differential diagnosis of swellings in the carotid triangle 315	
□ Neurogenic ulcer, neuropathic ulcer, trophic ulcer 157		□ Differential diagnosis of swellings in the posterior triangle 321	
□ Tropical ulcer 157		□ Congenital arteriovenous (AV) fistula (arterial haemangioma) 324	
□ Post-thrombotic ulcer 158		□ Lymph nodes secondaries (metastasis) in the head and neck 326	
□ Rare ulcers 158		□ Neck dissections 330	
□ Diabetic foot 158		□ Metastasis in cervical lymph nodes—various levels 330	
□ Pressure sores 166		□ Investigation and management of the unknown primary with metastasis in the neck 333	
27. Lower Limb Ischaemia and Popliteal Aneurysm	170	□ Pancoast's tumour 335	
□ Acute arterial occlusion 176			
□ Peripheral aneurysms 187			
28. Upper Limb Ischaemia and Gangrene	190	35. Oral Cavity, Odontomes, Lip and Palate	337
□ Thoracic outlet syndrome 192		□ Oral cancer 337	
□ Axillary vein thrombosis 197		□ Carcinoma of buccal mucosa 343	
□ Vasculitis syndromes 197		□ Carcinoma of tongue 346	
□ Gangrene 198		□ Carcinoma of lip 350	
□ Various types of gangrene 199		□ Carcinoma maxillary antrum 353	
□ Drug abuse and gangrene 200		□ Benign lesions in the oral cavity 354	
29. Lymphatics, Lymphoedema, Tuberculous Lymphadenitis and Lymphoma	202	□ Odontomes 355	
□ Lymphoedema 202		□ Median mental sinus 358	
□ Primary (congenital) lymphoedema 203		□ Cleft lip and cleft palate 359	
□ Secondary lymphoedema (acquired) 204		□ Miscellaneous 361	
□ Cervical tuberculous lymphadenitis 210		□ Mucous cysts 361	
□ Hodgkin's lymphoma (HL) 215			
□ Non-Hodgkin's lymphoma (NHL) 218			
□ Burkitt's lymphoma (small noncleaved lymphoma) 220			
□ Sézary's syndrome 220			
□ Chyluria 220			
30. Varicose Veins and Deep Vein Thrombosis	223	36. Salivary Glands	365
□ Deep vein thrombosis (DVT) 236		□ Surgical anatomy of the parotid gland 365	
31. Skin Tumours	240	□ Acute parotitis 366	
□ Premalignant lesions of the skin and risk factors 240		□ Surgical anatomy of the submandibular salivary gland 367	
□ Squamous cell carcinoma (SCC)/epithelioma 246		□ Chronic submandibular sialoadenitis 368	
□ Melanocytic tumours 250		□ Salivary gland tumours 370	
□ Malignant melanoma (melanocarcinoma) 250		□ Pleomorphic adenoma of parotid gland (mixed tumour) 370	
□ Stagewise treatment (more details) and recent advances 258		□ Adenolymphoma (Warthin's tumour, papillary cystadenoma lymphomatosum) 374	
□ Other malignant skin tumours 262		□ Mucoepidermoid tumour 374	
32. Burns and Skin Grafting	268	□ Other tumours 375	
□ Free skin grafting 274		□ Minor salivary gland tumour 375	
33. Tumours and Soft Tissue Sarcoma	279	□ Malignant parotid tumours 376	
□ Benign tumours 279		□ Postoperative complications 377	
□ Neural tumours 283		□ Peripheral nerve repair and transfers 378	
□ Malignant tumours 286		□ Rare causes of salivary gland enlargement 379	
□ Paraneoplastic syndromes (PNS) 287			
□ Soft tissue sarcomas (STS) 288			
□ Differential diagnosis of soft tissue sarcoma 292		37. Thyroid Gland	383
□ Useful tips in a case of soft tissue sarcoma 296		□ Surgical anatomy of thyroid gland 383	
		□ Physiology 386	
		□ Thyroid function tests 386	
		□ Clinical examination of thyroid swelling 387	
		□ Goitre 390	
		□ Multinodular goitre 391	
		□ Retrosternal goitre 394	
		□ Toxic goitre—thyrotoxicosis 396	
		□ Graves' disease 396	
		□ Malignant tumours 403	
		□ Well-differentiated carcinoma 403	
		□ Anaplastic carcinoma 412	
		□ Medullary carcinoma of the thyroid (MCT) 413	

❑ Solitary nodule of the thyroid gland 415	❑ Aberrations of normal development and involution of the breast 449
❑ Thyroiditis 418	❑ Cyclical mastalgia with nodularity 451
❑ Complications of thyroidectomy 419	❑ Idiopathic granulomatous mastitis (IGM) 455
❑ Miscellaneous 421	❑ Macrocysts 455
❑ Ectopic thyroid 422	❑ Galactocele 456
38. Parathyroid and Adrenals	426
❑ Parathyroid glands 426	❑ Discharge per nipple 456
❑ Hyperparathyroidism 428	❑ Duct papilloma 456
❑ Adrenal glands/suprarenal glands 434	❑ Galactorrhoea 457
❑ Disorders of adrenal cortex 435	❑ Axillary tail hypertrophy 457
❑ Tumours of the adrenal gland 436	❑ Traumatic fat necrosis 457
❑ Incidentalomas 436	❑ Gynaecomastia 457
39. Breast	443
❑ Congenital anomalies of breast 443	❑ Phyllodes tumours 458
❑ Surgical anatomy of breast 444	❑ Carcinoma breast 459
❑ Cystic swellings of breast 446	❑ Angiosarcoma of the breast 484
❑ Acute bacterial mastitis (breast abscess—pyogenic mastitis) 447	❑ Breast reconstruction 485
❑ Other types of breast abscesses 448	❑ Male breast carcinoma 488
	❑ Mondor's disease 489
	❑ Disorders of augmented breast 489
	❑ Rare breast cancers 489
	❑ Oncoplastic breast conservation surgery 490

SECTION III: UROLOGY

40. Investigations of the Urinary Tract	495	❑ Surgical anatomy of the urethra 540	
❑ Urine examination 495		❑ Rupture urethra 541	
❑ Blood tests 496		❑ Stricture urethra 543	
❑ X-ray KUB (kidney, ureter, bladder) 496		❑ Differential diagnosis of urinary retention 544	
❑ Imaging 496		❑ Interstitial cystitis 545	
❑ Renal arteriography: Angiography 498		❑ Schistosoma haematobium 545	
❑ Micturating cystourethrography (MCU) 499		❑ Urinary diversion 545	
❑ Computerised tomography (CT) scanning 500			
❑ Endoscopy 501			
41. Congenital Anomalies of the Genitourinary Tract	504	44. Prostate and Seminal Vesicles	548
❑ Development of genitourinary tract 504		❑ Surgical anatomy 548	
❑ Polycystic kidneys 505		❑ Benign prostatic hyperplasia (BPH) 549	
❑ Horseshoe kidney 507		❑ Carcinoma of the prostate 551	
❑ Congenital hydronephrosis 508		❑ Prostatitis 555	
❑ Anomalies in the urinary bladder and urethra 508			
❑ Anomalies of the urethra 509		45. Penis, Testis and Scrotum	558
❑ Anomalies of the testis 511		❑ Surgical anatomy of the penis 558	
❑ Ectopic testis 512		❑ Phimosis 558	
42. Kidney and Ureter	513	❑ Paraphimosis 559	
❑ Surgical anatomy of kidney 513		❑ Carcinoma penis 559	
❑ Renal stones 514		❑ Peyronie's disease (penile fibromatosis) 563	
❑ Ureteric stone 518		❑ Differential diagnosis of ulcer penis 564	
❑ Hydronephrosis 519		❑ Anatomy of the testis and epididymis 564	
❑ Renal tuberculosis (TB) 523		❑ Hydrocoele 565	
❑ Renal neoplasms 525		❑ Cystic swellings in the scrotum 568	
❑ Wilms' tumour (nephroblastoma) 525		❑ Varicocele 569	
❑ Renal cell carcinoma (RCC) 527		❑ Torsion testis (torsion of the spermatic cord) 570	
❑ Renal mass in the surgical ward 531		❑ Testicular tumours 570	
43. Urinary Bladder and Urethra	535	❑ Interstitial cell tumours 574	
❑ Surgical anatomy of the bladder 535		❑ Fournier's gangrene (idiopathic gangrene of the scrotal skin) 574	
❑ Vesical calculus 536			
❑ Carcinoma of the bladder 537		46. Haematuria and Urinary Tract Infections	578
❑ Rupture of the urinary bladder 540		❑ History and examination 578	
		❑ Investigations 579	
		❑ Haematuria 581	
		❑ Urinary tract infections 581	

SECTION IV: SPECIALITIES

47. Chest Trauma and Cardiothoracic Surgery	589	<ul style="list-style-type: none"> ❑ Chest trauma 589 ❑ Blunt trauma to the chest 590 ❑ Pulmonary injuries 591 ❑ Injury to trachea and major bronchi 595 ❑ Injury to the diaphragm 595 ❑ Injury to the aorta (rupture of the aorta) 595 ❑ Myocardial contusion 596 ❑ Surgical emphysema 596 ❑ Penetrating thoracic wounds 597 ❑ Mediastinal emphysema 597 ❑ Empyema 598 ❑ Bronchopleural fistula 599 ❑ Surgical anatomy of mediastinum and mediastinal masses 600 ❑ Anterior mediastinal masses 600 ❑ Middle mediastinal masses 602 ❑ Posterior mediastinal masses 602 ❑ Pulmonary aspergilloma 603 ❑ Bronchogenic carcinoma 603 ❑ Congenital heart diseases 606 ❑ Coronary artery bypass surgery 609 ❑ Off pump coronary artery bypass surgery 611
48. Neurosurgery		<ul style="list-style-type: none"> ❑ Pathophysiology and mechanism of head injuries 613 ❑ Intracranial haematoma 615 ❑ Chronic subdural haematoma 617 ❑ Raised intracranial pressure 618 ❑ Fracture skull 618
	613	
49. Principles of Anaesthesiology	622	<ul style="list-style-type: none"> ❑ Types of anaesthesia 622 ❑ Preoperative assessment and premedication 623 ❑ Airway management 625 ❑ Monitoring in anaesthesia 629 ❑ Local anaesthetics 630 ❑ Spinal and epidural anaesthesia 632 ❑ Other regional techniques 636 ❑ Complications of anaesthesia 637 ❑ General anaesthetic agents 639 ❑ Intravenous anaesthetic agents 641 ❑ Physiology of neuromuscular junction 643 ❑ Muscle relaxants 643
50. Organ Transplantation	647	<ul style="list-style-type: none"> ❑ Principles of transplantation 647 ❑ Liver transplantation 648 ❑ Renal transplantation 650 ❑ Medicolegal aspects of organ donation 652
51. Principles of Clinical Radiation Oncology and Chemotherapy	654	<ul style="list-style-type: none"> ❑ Radiation 654 ❑ Radiotherapy—sources and methods of delivery 655 ❑ Source of radiation 655 ❑ Oncology: Concise concepts of chemotherapy 662

VOLUME 2**SECTION V: GASTROINTESTINAL SURGERY**

52. Oesophagus and Diaphragm	673	<ul style="list-style-type: none"> ❑ Gastro-oesophageal reflux disease 676 ❑ Barrett's oesophagus 682 ❑ Motility disorders of the pharynx and oesophagus 683 ❑ Carcinoma of the oesophagus 687 ❑ Transhiatal oesophagectomy (THE)—without thoracotomy—Orringer 695 ❑ Corrosive oesophageal stricture 697 ❑ Oesophageal perforations 699 ❑ Tracheo-oesophageal fistula 704
53. Stomach and Duodenum	707	<ul style="list-style-type: none"> ❑ Surgical anatomy 707 ❑ Gastric physiology 710 ❑ <i>Helicobacter pylori</i> infection 711 ❑ Gastritis 713 ❑ Zollinger-Ellison syndrome 714 ❑ Peptic ulcer disease 715 ❑ Acute complications of peptic ulcer 722 ❑ Haemorrhage from peptic ulcer 725 ❑ Differential diagnosis of haematemesis (upper GI tract bleeding) 727 ❑ Chronic complications of peptic ulcer 732 ❑ Carcinoma stomach 734 ❑ Other tumours of the stomach 746 ❑ Complications of gastrectomy 750 ❑ Volvulus of the stomach 753
	54.	
Gallbladder and Pancreas	762	<ul style="list-style-type: none"> ❑ Surgical anatomy of the gallbladder and bile ducts 762 ❑ Physiology 763 ❑ Congenital anomalies of gallbladder 764 ❑ Bilirubin metabolism 764 ❑ Gallstone disease (cholelithiasis) 765 ❑ Acute cholecystitis 768 ❑ Chronic cholecystitis 772 ❑ Obstructive jaundice (surgical jaundice) 778 ❑ Other causes of obstructive jaundice 789 ❑ Chronic pancreatitis 794 ❑ Carcinoma of pancreas 801 ❑ Endocrine tumours of the pancreas 805 ❑ Acute pancreatitis 807 ❑ Pseudocyst of pancreas 818 ❑ Congenital anomalies of the pancreas 821 ❑ Miscellaneous 823
55. Liver	827	<ul style="list-style-type: none"> ❑ Pyogenic liver abscess 828 ❑ Amoebic liver abscess 830 ❑ Hydatid cyst of the liver 833 ❑ Other cystic disease 837

❑ Benign tumours of the liver 837		
❑ Primary liver cancer—hepatoma or hepatocellular carcinoma (HCC) 638		
❑ Liver resections 845		
56. Spleen	849	
❑ Surgical anatomy 849		
❑ Functions of the spleen 850		
❑ Congenital abnormalities 851		
❑ Rupture of the spleen 851		
❑ Haematological indications for splenectomy 856		
❑ Splenectomy for other conditions 860		
❑ OPSI 863		
57. Peritoneum, Peritoneal Cavity, Mesentery and Retroperitoneum	866	
❑ Peritoneum 866		
❑ Intra-abdominal sepsis 867		
❑ Abdominal compartment syndrome 877		
❑ Complications of peritonitis 879		
❑ Special types of peritonitis 883		
❑ Tumours of the peritoneum 888		
❑ Mesentery 890		
❑ Retroperitoneum 891		
❑ Retroperitoneal abscess 892		
58. Small Intestine	900	
❑ Abdominal tuberculosis (TB) 903		
❑ Inflammatory bowel diseases 911		
❑ Surgical complications of enteric fever 921		
❑ Small bowel tumours 924		
❑ Neuroendocrine tumours (NET) 926		
❑ Short gut syndrome 928		
❑ Intestinal fistulae 930		
❑ Small intestinal diverticula 932		
59. Large Intestine (Colon)	937	
❑ Surgical anatomy 937		
❑ Colectomy 940		
❑ Colonic function 942		
❑ Examination of colon 943		
❑ Tumours of the large intestine 944		
❑ Carcinoma colon 947		
❑ Surgeries in a case of carcinoma colon 958		
❑ Colon screening 960		
❑ Diverticular disease of colon 960		
❑ Miscellaneous 964		
60. Intestinal Obstruction	968	
❑ Causes of intestinal obstruction as per age 978		
❑ Differential diagnosis of intestinal obstruction 978		
❑ Mesenteric vascular occlusion 991		
❑ Neonatal intestinal obstruction 996		
❑ Anorectal anomalies 1001		
❑ Paralytic ileus (neurogenic ileus) 1002		
❑ Intestinal obstruction—special causes 1004		
❑ Malrotation and midgut volvulus 1006		
61. Rectum and Anal Canal	1010	
❑ Surgical anatomy of the rectum 1010		
❑ Surgical anatomy of anal canal 1012		
❑ Carcinoma rectum 1015		
❑ Colostomy 1025		
❑ Anorectal physiology 1028		
❑ Anal incontinence 1028		
❑ Prolapse rectum 1029		
❑ Haemorrhoids (piles) 1033		
❑ Stapler haemorrhoidopexy 1038		
❑ Anorectal abscess 1038		
❑ Fistula <i>in ano</i> 1040		
❑ Fissure <i>in ano</i> 1043		
❑ Pilonidal sinus (jeep-bottom) 1045		
❑ Sacrococcygeal teratoma 1046		
❑ Malignant tumours of anal canal 1047		
❑ Stricture of anal canal and rectum 1048		
❑ Proctalgia fugax 1048		
❑ Pruritus ani 1048		
❑ Hidradenitis suppurativa 1049		
62. Lower Gastrointestinal Bleeding	1052	
63. Appendix	1064	
❑ Development and anomalies 1064		
❑ Surgical anatomy of the appendix 1065		
❑ Acute appendicitis 1066		
❑ Scoring system 1070		
❑ Differential diagnosis of acute appendicitis 1074		
❑ Neoplasm of the appendix 1078		
❑ Mucocoele of the appendix 1078		
64. Hernia	1083	
❑ Anatomy of the inguinal region 1083		
❑ Inguinal defence mechanisms 1085		
❑ Aetiology of hernia: What causes hernia? 1085		
❑ Classification of hernia 1085		
❑ Indirect hernia 1086		
❑ Direct hernia 1087		
❑ Clinical examination of a case of hernia 1088		
❑ Complications of hernia 1095		
❑ Recurrent hernia 1097		
❑ Special hernias 1098		
❑ Femoral hernia 1101		
❑ Ventral hernia 1103		
❑ Incisional hernia 1107		
❑ Management of massive abdominal wall hernias 1111		
❑ Epigastric hernia 1113		
❑ Rare external hernias 1113		
65. Umbilicus, Wound Dehiscence, Wound Closure and Abdominal Wall Swellings	1120	
❑ Classification of umbilical diseases 1121		
❑ Umbilical inflammation 1121		
❑ Umbilical fistulae 1121		
❑ Umbilical neoplasms 1122		
❑ Umbilical hernia 1122		
❑ Abdominal wall 1122		
❑ Burst abdomen: Abdominal dehiscence 1123		
❑ Fibromatoses: Desmoid tumour 1126		
❑ Divarication of recti 1127		
❑ Endometriosis of the abdominal wall 1127		
❑ Miscellaneous 1127		
66. Trauma—Initial Management, Blunt Abdominal Trauma, War and Blast Injuries and Triage	1129	
❑ Initial management of trauma victims 1129		
❑ Blast injuries 1135		
❑ Warfare injuries 1135		
❑ Missile wounds of abdomen 1136		
❑ Gunshot wounds 1136		
❑ Blunt abdominal trauma 1138		
❑ Vascular trauma 1152		

SECTION VI: VIVA VOCE EXAMINATION

67. Principles of Radiology and Imaging	1157	<input type="checkbox"/> Plain X-rays 1157 <input type="checkbox"/> Barium studies 1161 <input type="checkbox"/> Angiography 1166 <input type="checkbox"/> Ultrasoundography 1168 <input type="checkbox"/> Computed tomography (CT) 1169 <input type="checkbox"/> Virtual colonoscopy 1170 <input type="checkbox"/> Cholangiogram/ERCP/MRCP 1172 <input type="checkbox"/> Magnetic resonance imaging (MRI) 1173 <input type="checkbox"/> Positron emission tomography (PET scan) 1175 <input type="checkbox"/> Interventional radiology 1176
68. Instruments, Sutures, Needles, Skin and Anastomosis	1179	<input type="checkbox"/> Incision and drainage (I and D) 1213 <input type="checkbox"/> Circumcision 1215 <input type="checkbox"/> Venesection or cut down 1215 <input type="checkbox"/> Vasectomy 1216 <input type="checkbox"/> Tracheostomy 1217 <input type="checkbox"/> Thyroidectomy 1218 <input type="checkbox"/> Amputations 1221 <input type="checkbox"/> Amputations in leg 1221 <input type="checkbox"/> Upper limb amputations 1224 <input type="checkbox"/> Abdominal incisions 1225 <input type="checkbox"/> Appendicectomy 1225 <input type="checkbox"/> Bassini's herniorrhaphy 1228 <input type="checkbox"/> Open cholecystectomy 1232 <input type="checkbox"/> Vagotomy gastrojejunostomy (GJ) 1233 <input type="checkbox"/> Staplers in surgery 1234 <input type="checkbox"/> Laparoscopic surgery 1235 <input type="checkbox"/> Hernia repair: TAPP (transabdominal preperitoneal mesh repair) 1239 <input type="checkbox"/> SILS (LESS) 1240 <input type="checkbox"/> Natural orifice transluminal endoscopic surgery (NOTES) 1241 <input type="checkbox"/> VAAFT technique 1241 <input type="checkbox"/> Robotic surgery 1242 <input type="checkbox"/> Energy sources in surgery 1243 <input type="checkbox"/> Harmonic scalpel 1244
69. Specimens	1199	
70. Operative Surgery, Laparoscopic Surgery and Accessories	1208	
Index		1247

Contents

VOLUME 2

SECTION V: GASTROINTESTINAL SURGERY

52. Oesophagus and Diaphragm	673	<ul style="list-style-type: none">❑ Gastro-oesophageal reflux disease 676❑ Barrett's oesophagus 682❑ Motility disorders of the pharynx and oesophagus 683❑ Carcinoma of the oesophagus 687❑ Transhiatal oesophagectomy (THE)—without thoracotomy—Orringer 695❑ Corrosive oesophageal stricture 697❑ Oesophageal perforations 699❑ Tracheo-oesophageal fistula 704
53. Stomach and Duodenum	707	<ul style="list-style-type: none">❑ Surgical anatomy 707❑ Gastric physiology 710❑ <i>Helicobacter pylori</i> infection 711❑ Gastritis 713❑ Zollinger-Ellison syndrome 714❑ Peptic ulcer disease 715❑ Acute complications of peptic ulcer 722❑ Haemorrhage from peptic ulcer 725❑ Differential diagnosis of haematemesis (upper gi tract bleeding) 727❑ Chronic complications of peptic ulcer 732❑ Carcinoma stomach 734❑ Other tumours of the stomach 746❑ Complications of gastrectomy 750❑ Volvulus of the stomach 753❑ Bezoars 753❑ Idiopathic hypertrophic pyloric stenosis (IHPS) 754❑ Chronic duodenal ileus 755❑ Duodenal anatomy and obstruction 756
54. Gallbladder and Pancreas	762	<ul style="list-style-type: none">❑ Surgical anatomy of the gallbladder and bile ducts 762❑ Physiology 763❑ Congenital anomalies of gallbladder 764❑ Bilirubin metabolism 764❑ Gallstone disease (cholelithiasis) 765❑ Acute cholecystitis 768❑ Chronic cholecystitis 772❑ Obstructive jaundice (surgical jaundice) 778❑ Other causes of obstructive jaundice 789❑ Chronic pancreatitis 794❑ Carcinoma of pancreas 801❑ Endocrine tumours of the pancreas 805❑ Acute pancreatitis 807❑ Pseudocyst of pancreas 818❑ Congenital anomalies of the pancreas 821❑ Miscellaneous 823
55. Liver	827	<ul style="list-style-type: none">❑ Pyogenic liver abscess 828❑ Amoebic liver abscess 830❑ Hydatid cyst of liver 833❑ Other cystic disease 837
56. Spleen	849	<ul style="list-style-type: none">❑ Benign tumours of the liver 837❑ Primary liver cancer—hepatoma or hepatocellular carcinoma (HCC) 638❑ Liver resections 845
57. Peritoneum, Peritoneal Cavity, Mesentery and Retroperitoneum	866	<ul style="list-style-type: none">❑ Surgical anatomy 849❑ Functions of the spleen 850❑ Congenital abnormalities 851❑ Rupture of the spleen 851❑ Haematological indications for splenectomy 856❑ Splenectomy for other conditions 860❑ OPSI 863
58. Small Intestine	900	<ul style="list-style-type: none">❑ Peritoneum 866❑ Intra-abdominal sepsis 867❑ Abdominal compartment syndrome 877❑ Complications of peritonitis 879❑ Special types of peritonitis 883❑ Tumours of the peritoneum 888❑ Mesentery 890❑ Retroperitoneum 891❑ Retroperitoneal abscess 892
59. Large Intestine	937	<ul style="list-style-type: none">❑ Small Intestine 900❑ Abdominal tuberculosis (TB) 903❑ Inflammatory bowel diseases 911❑ Surgical complications of enteric fever 921❑ Small bowel tumours 924❑ Neuroendocrine tumours (NET) 926❑ Short gut syndrome 928❑ Intestinal fistulae 930❑ Small intestinal diverticula 932
60. Intestinal Obstruction	968	<ul style="list-style-type: none">❑ Large Intestine 937❑ Surgical anatomy 937❑ Colectomy 940❑ Colonic function 942❑ Examination of colon 943❑ Tumours of the large intestine 944❑ Carcinoma colon 947❑ Surgeries in a case of carcinoma colon 958❑ Colon screening 960❑ Diverticular disease of colon 960❑ Miscellaneous 964
		<ul style="list-style-type: none">❑ Differential diagnosis of intestinal obstruction 978❑ Mesenteric vascular occlusion 991❑ Neonatal intestinal obstruction 996❑ Anorectal anomalies 1001❑ Paralytic ileus (neurogenic ileus) 1002❑ Intestinal obstruction—special causes 1004❑ Malrotation and midgut volvulus 1006

61. Rectum and Anal Canal

- ❑ Surgical anatomy of the rectum 1010
- ❑ Carcinoma rectum 1015
- ❑ Colostomy 1025
- ❑ Prolapse rectum 1029
- ❑ Surgical anatomy of anal canal 1012
- ❑ Anorectal physiology 1028
- ❑ Haemorrhoids (piles) 1033
- ❑ Stapler haemorrhoidopexy 1038
- ❑ Anorectal abscess 1038
- ❑ Fistula *in ano* 1040
- ❑ Fissure *in ano* 1049
- ❑ Pilonidal sinus (jeep-bottom) 1045
- ❑ Sacrococcygeal teratoma 1046
- ❑ Malignant tumours of anal canal 1047
- ❑ Stricture of anal canal and rectum 1048
- ❑ Proctalgia fugax 1048
- ❑ Pruritus ani 1048
- ❑ Hidradenitis suppurativa 1049

62. Lower Gastrointestinal Bleeding**63. Appendix**

- ❑ Development and anomalies 1064
- ❑ Surgical anatomy of the appendix 1065
- ❑ Acute appendicitis 1066
- ❑ Scoring system 1070
- ❑ Differential diagnosis of acute appendicitis 1074
- ❑ Neoplasm of the appendix 1078
- ❑ Mucocoele of the appendix 1078

64. Hernia

- ❑ Anatomy of the inguinal region 1083
- ❑ Inguinal defence mechanisms 1085
- ❑ Aetiology of hernia: What causes hernia? 1085

1010

- ❑ Classification of hernia 1085
- ❑ Indirect hernia 1086
- ❑ Direct hernia 1087
- ❑ Clinical examination of a case of hernia 1088
- ❑ Complications of hernia 1095
- ❑ Recurrent hernia 1097
- ❑ Special hernias 1098
- ❑ Femoral hernia 1101
- ❑ Ventral hernia 1103
- ❑ Incisional hernia 1107
- ❑ Management of massive abdominal wall hernias 1111
- ❑ Epigastric hernia 1113
- ❑ Rare external hernias 1113

65. Umbilicus, Wound Dehiscence, Wound Closure 1120 and Abdominal Wall Swellings

- ❑ Classification of umbilical diseases 1121
- ❑ Umbilical inflammation 1121
- ❑ Umbilical fistulae 1121
- ❑ Umbilical neoplasms 1122
- ❑ Umbilical hernia 1122
- ❑ Abdominal wall 1122
- ❑ Burst abdomen: Abdominal dehiscence 1123
- ❑ Divarication of recti 1127
- ❑ Fibromatoses: Desmoid tumour 1126
- ❑ Endometriosis of the abdominal wall 1127

1052**66. Trauma—Initial Management, Blunt Abdominal 1129 Trauma, War and Blast Injuries and Triage**

- ❑ Initial management of trauma victims 1129
- ❑ Blast injuries 1135
- ❑ Warfare injuries 1135
- ❑ Missile wounds of abdomen 1136
- ❑ Gunshot wounds 1136
- ❑ Blunt abdominal trauma 1138
- ❑ Vascular trauma 1138

1064**1083****SECTION VI: VIVA VOCE EXAMINATION****67. Principles of Radiology and Imaging**

- ❑ Plain X-rays 1157
- ❑ Barium studies 1161
- ❑ Angiography 1166
- ❑ Ultrasonography 1168
- ❑ Computed tomography (CT) 1169
- ❑ Virtual colonoscopy 1170
- ❑ Cholangiogram/ERCP/MRCP 1172
- ❑ Magnetic resonance imaging (MRI) 1173
- ❑ Positron emission tomography (PET scan) 1175
- ❑ Interventional radiology 1176

1157

- ❑ Incision and drainage (I and D) 1213
- ❑ Circumcision 1215
- ❑ Venesection or cut down 1215
- ❑ Vasectomy 1216
- ❑ Tracheostomy 1217
- ❑ Thyroidectomy 1218
- ❑ Amputations 1221
- ❑ Amputations in leg 1221
- ❑ Upper limb amputations 1224
- ❑ Abdominal incisions 1225
- ❑ Appendicectomy 1225
- ❑ Bassini's herniorrhaphy 1228
- ❑ Open cholecystectomy 1232
- ❑ Vagotomy gastrojejunostomy (GJ) 1233
- ❑ Staplers in surgery 1234
- ❑ Laparoscopic surgery 1235

1179

- ❑ Hernia repair: Tapp (transabdominal preperitoneal mesh repair) 1239
- ❑ SILS (LESS) 1240
- ❑ Natural orifice transluminal endoscopic surgery (NOTES) 1241
- ❑ VAAFT technique 1241
- ❑ Robotic surgery 1242
- ❑ Energy sources in surgery 1243
- ❑ Harmonic scalpel 1244

68. Instruments, Sutures, Needles, Skin and Anastomosis

- ❑ Suture materials 1257
- ❑ Skin closure techniques 1194
- ❑ Intestinal resection and anastomosis 1195

1109**69. Specimens****70. Operative Surgery, Laparoscopic Surgery and Accessories**

- ❑ History of surgery 1208
- ❑ Operative surgery 1209
- ❑ Excision of swellings 1209
- ❑ Surgery for hydrocoele 1211

1208