

FINAL EXAMINATION FOR THE FELLOWSHIP IN CLINICAL RADIOLOGY – PART A

Candidate Reference Sheet

This reference sheet is for candidate use during the single best answer (SBA) question papers. It provides information about frequently used abbreviations and normal ranges for investigations.

ABBREVIATIONS

5-HIAA	5-hydroxyindoleacetic acid
¹¹C	choline C-11
¹⁸FDG	¹⁸ fluoro-2-deoxy-D-glucose
⁶⁷Ga	gallium-67
^{99m}Tc	technetium-99m
^{99m}Tc HDP	technetium-99m hydroxymethylene diphosphonate
^{99m}Tc HMPAO	technetium-99m hexamethylpropyleneamine oxime
¹¹¹In	indium-111
¹²³I-MIBG	iodine-123 meta-iodobenzyl guanidine
¹³¹I	iodine-131
¹³³Xe	xenon-133
AAA	abdominal aortic aneurysm
ABER	abduction and external rotation
ABPA	allergic bronchopulmonary aspergillosis
AC	acromioclavicular
ACA	anterior cerebral artery
ACE	angiotensin converting enzyme
ACL	anterior cruciate ligament
ACTH	adrenocorticotrophic hormone
ADC	apparent diffusion coefficient
ADEM	acute disseminated encephalomyelitis
ADH	antidiuretic hormone
AF	atrial fibrillation
AFP	alpha-fetoprotein
AIDS	acquired immune deficiency syndrome
ALPSA	anterior labral periosteal sleeve avulsion
ALL	acute lymphoblastic leukemia
ALT	alanine aminotransferase
ALVAL	aseptic lymphocyte-dominated vasculitis-associated lesion
AML	acute myeloid leukaemia
ANCA	anti-neutrophil cytoplasmic antibodies
AP	anteroposterior
APTT	activated partial thromboplastin time
ARDS	adult respiratory distress syndrome
ASD	atrial septal defect
AST	aspartate transaminase
AV	arteriovenous
AVM	arteriovenous malformation
βHCG	beta-human chorionic gonadotrophin

BMI	body mass index
BOPTA	benzyloxypropionictetra-acetate
BPH	benign prostatic hyperplasia
BRCA1	breast cancer gene type 1
CA 125	cancer antigen 125
CABG	coronary artery bypass graft
CADASIL	cerebral autosomal dominant arteriopathy with subcortical infarcts and leucoencephalopathy
CAM	cavernous angiomatous malformation
CBD	common bile duct
CC	cranio-caudal
CCD	charge coupled device
CEA	carcinoembryonic antigen
CECT	contrast-enhanced computed tomography
CFA	common femoral artery
CJD	Creutzfeldt-Jakob disease
CKD	chronic kidney disease
CLD	chronic lung disease
CMV	cytomegalovirus
CNS	central nervous system
CO₂	carbon dioxide
COP	cryptogenic organising pneumonia
COPD	chronic obstructive pulmonary disease
CPA	cerebellopontine angle
CPAM	congenital pulmonary airway malformation
CPPD	calcium pyrophosphate deposition disease
CR	computed radiography
CREST	calcinosis, Raynaud's phenomenon, esophageal dysmotility, sclerodactyly, and telangiectasia
CRM	circumferential resection margin
CRMO	chronic recurrent multifocal osteomyelitis
CRP	C-reactive protein
CSF	cerebrospinal fluid
CSOM	chronic secretory otitis media
CT	computed tomography
CTA	CT angiography
CTC	CT colonography
CTCA	CT coronary angiography
CTPA	CT pulmonary angiogram
CTU	CT urography / urogram
DAI	diffuse axonal injury
DaTSCAN	dopamine active transporter scan
DCE	dynamic contrast-enhanced
DCIS	ductal carcinoma in situ
DDH	developmental dysplasia of the hip
DEXA	dual-energy x-ray absorptiometry
DIOS	distal intestinal obstruction syndrome
DIP	desquamative interstitial pneumonia
DISH	diffuse idiopathic skeletal hyperostosis
DIPJ	distal interphalangeal joint
DISI	dorsal intercalated segment instability
DJ	duodenojejunal
DMSA	dimercaptosuccinic acid
DNET	dysembryoplastic neuroepithelial tumour

DP	dorsoplantar
DR	digital radiography
DSA	digital subtraction angiography
DTPA	diethylene-triamine penta-acetic acid
DVT	deep vein thrombosis
DW	diffusion weighted
DWI	diffusion-weighted imaging
EAA	extrinsic allergic alveolitis
EBUS	endobronchial ultrasound
ECG	electrocardiogram
ECMO	extracorporeal membrane oxygenation
ED	emergency department
EEG	electroencephalogram
eGFR	estimated glomerular filtration rate
ENT	ear, nose and throat
Eob	ethoxybenzyl
ER	emergency room
ERCP	endoscopic retrograde cholangiopancreatography
ESR	erythrocyte sedimentation rate
ESWL	extracorporeal shockwave lithotripsy
ETT	endotracheal tube
EUA	examination under anaesthesia
EUS	endoscopic ultrasound
EVAR	endovascular aneurysm repair
F2	Foundation Year 2
FAST	focused abdominal ultrasonography in trauma
FBC	full blood count
FDG	fluorodeoxyglucose
FEES	fibre-optic endoscopic evaluation of swallowing
FESS	functional endoscopic sinus surgery
FEV1	forced expired volume in one second
FIT	faecal immunochemical test
FLAIR	fluid attenuated inversion recovery
FMH	fibromuscular hyperplasia
FNA	fine needle aspiration
FNAC	fine needle aspiration cytology
FNH	focal nodular hyperplasia
FOB	faecal occult blood
FS	fat suppressed
FSE	fast spin echo
FSH	follicle stimulating hormone
GB	gall bladder
GBM	glioblastoma multiforme
GCS	Glasgow coma score
G-CSF	granulocyte-colony stimulating factor
Gd	gadolinium
Gd-EOB-DTPA	gadolinium ethoxybenzyl diethylenetriamine penta-acetic acid
GE	gradient echo
GGT	gamma-glutamyl transpeptidase / gamma-glutamyl transferase
GI	gastrointestinal
GIST	gastrointestinal stromal tumour
GOJ	gastro-oesophageal junction
GP	general practitioner

GPA	granulomatosis with polyangiitis
GRE	gradient recalled echo
GTN	glyceryl trinitrate
H1N1	influenza A
HAART	highly active antiretroviral therapy
HAGL	humeral avulsion glenohumeral ligament
HBsAg	hepatitis B surface antigen
HCC	hepatocellular carcinoma
HDU	high dependency unit
HELLP	haemolytic anemia, elevated liver enzymes and low platelet
HHT	hereditary haemorrhagic telangiectasia
HIDA	hepatic iminodiacetic acid
HIFU	high intensity focused ultrasound
HIV	human immunodeficiency virus
HLA-B27	human leucocyte antigen B27
HLRCC	hereditary leiomyomatosis and renal cell cancer
HMPAO	hexamethylpropyleneamine oxime
HOA	hypertrophic osteoarthropathy
HP	hypersensitivity pneumonitis (formerly EAA)
HPOA	hypertrophic pulmonary osteoarthropathy
HPV	human papillomavirus
HR	high-resolution
HRCT	high-resolution computed tomography
HRT	hormone replacement therapy
HSG	hysterosalpingogram
HU	Hounsfield unit
IA	intra-arterial
IAM	internal auditory meatus
ICA	internal carotid artery
IDA	iminodiacetic acid
IgG4	immunoglobulin G4- related disease
IHH	infantile hepatic hemangioma
IJV	internal jugular vein
IM	intramuscular
IMA	inferior mesenteric artery
INR	international normalised ratio
IPF	idiopathic pulmonary fibrosis
IPMN	intraductal papillary mucinous neoplasm
ITU	intensive therapy unit
IUCD	intrauterine contraceptive device
IV	intravenous
IVC	inferior vena cava
IVF	in vitro fertilisation
IVU	intravenous urography/urogram
JIA	juvenile idiopathic arthritis
JVP	jugular venous pressure
KUB	kidney, ureter and bladder
kV	kilovoltage
LAD	left anterior descending
LAM	lymphangioliomyomatosis
LAO	left anterior oblique
LASER	light amplification by stimulated emission of radiation

LCH	Langerhans cell histiocytosis
LDH	lactate dehydrogenase
LFTs	liver function tests
LH	luteinising hormone
LIQ	lower inner quadrant
LIP	lymphocytic interstitial pneumonitis
LMP	last menstrual period
LMWH	low molecular weight heparin
LOQ	lower outer quadrant
LUL	left upper lobe
LV	left ventricle
mA	tube current
MAA	macroaggregated albumin
MAG3	mercaptoacetyltriglycine
MALToma	mucosa-associated lymphatic tissue lymphoma
MCA	middle cerebral artery
MCL	medial collateral ligament
MCP	metacarpophalangeal
MCUG	micturating cystourethrogram
MCV	mean corpuscular volume
MDCT	multidetector computed tomography
MDP	methylene diphosphonate
MDT	multidisciplinary team
ME	myalgic encephalomyelitis
MELAS	mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes
MEN	multiple endocrine neoplasia
MI	myocardial infarction
MIBI	methoxyisobutylisonitrile
MIBG	metaiodobenzylguanidine
Mn-DPDP	manganese dipyridoxal diphosphate
MLO	mediolateral-oblique
mpMR	multiparametric magnetic resonance
MPO	myeloperoxidase
MR	magnetic resonance
MRA	magnetic resonance angiography
MRCP	magnetic resonance cholangiopancreatography
MRI	magnetic resonance imaging
MRU	magnetic resonance urography
MRV	magnetic resonance venography
MS	multiple sclerosis
MSU	mid-stream urine
MTP	metatarsophalangeal
MTPJ	metatarsophalangeal joint
NAA	N-acetylaspartate
NASCET	North American Symptomatic Carotid Endarterectomy Trial
NASH	non-alcoholic steatohepatitis
NAI	non-accidental injury
NBSS	National Breast Screening Service
NEC	necrotising enterocolitis
NET	neuroendocrine tumour
NF-1	neurofibromatosis Type 1
NG	nasogastric
NICE	National Institute for Health and Clinical Excellence
NJ	nasojejunal

NMDA	N-Methyl-D-aspartate
NMO	neuromyelitis optica
NUU	neonatal unit
NPV	negative predictive value
NSAIDs	non-steroidal anti-inflammatory drugs
NSF	nephrogenic systemic fibrosis
NSIP	non-specific interstitial pneumonia
OA	osteo-arthritis
OARs	Ottawa ankle rules
OGD	oesophagogastroduodenoscopy
OM	occipitomenal
OPG/T	orthopantomography/orthopantomogram
PR3	proteinase 3
PA	posteroanterior
p-ANCA	perinuclear anti-neutrophil cytoplasmic antibodies
PAPVR	partial anomalous pulmonary venous return
PCA	posterior cerebral artery
PCNL	percutaneous nephrolithotomy
PCOS	polycystic ovary syndrome
PCOM	posterior communicating
PCL	posterior cruciate ligament
PCP	Pneumocystis pneumonia / Pneumocystis jirovecii pneumonia
PDA	patent ductus arteriosus
PD	proton-density
PDW	proton-density-weighted
PE	pulmonary embolism
PET	positron emission tomography
PICA	posterior inferior cerebellar artery
PICU	paediatric intensive care unit
PIMS	paediatric inflammatory multi-system syndrome
PIP	proximal interphalangeal
PI-RADS	prostate imaging reporting and data system
PIPJ	proximal interphalangeal joint
PMB	post-menopausal bleeding
PMC	pseudomembranous colitis
PML	progressive multifocal leucoencephalopathy
PMR	polymyalgia rheumatica
PNET	primitive neuroectodermal tumour
PR	per rectum
PRES	posterior reversible encephalopathy syndrome
PSA	prostate specific antigen
PSMA	prostate specific membrane antigen
PT	prothrombin time
PTC	percutaneous transhepatic cholangiography
PTH	parathyroid hormone
PTLD	post-transplant lymphoproliferative disorder
PUJ	pelviureteric junction
PV	per vagina
PVA	polyvinyl alcohol
PVNS	pigmented villonodular synovitis
RBC	red blood cell
RB-ILD	respiratory bronchiolitis-associated interstitial lung disease
RCA	right coronary artery

RCC	renal cell carcinoma
RDS	respiratory distress syndrome
RF	radiofrequency
RICH	rapidly involuting congenital haemangioma
RIF	right iliac fossa
RLQ	right lower quadrant
RPF	retroperitoneal fibrosis
RR	respiratory rate
RSD	reflex sympathetic dystrophy
RTC	road traffic collision
RUQ	right upper quadrant
RV	right ventricular
SAPHO	synovitis, acne, pustulosis, hyperostosis and osteitis
SCC	squamous cell carcinoma
SE	spin echo
SFA	superficial femoral artery
SI	sacroiliac
SLAC	scapholunate advanced collapse
SLAP	superior labrum anterior to posterior tear
SLE	systemic lupus erythematosus
SMA	superior mesenteric artery
SMV	superior mesenteric vein
SPECT	single photon emission computed tomography
SPEN	solid and papillary epithelial neoplasm
SPGR	spoiled gradient recalled echo
SPIO	superparamagnetic iron oxide
SPN	solitary pulmonary nodule
STIR	short tau inversion recovery
SUV	standardised uptake value
SVC	superior vena cava
SWI	susceptibility-weighted imaging
T1FS	T1-weighted fat suppressed spin echo
T1W	T1-weighted
T2W	T2-weighted
T1WI	T1-weighted image
T2WI	T2-weighted image
TACE	trans-arterial chemoembolisation
TAPVD	total anomalous pulmonary venous drainage
TAVI	transcatheter aortic valve implantation
TB	tuberculosis
Tc-HIDA	technetium hepatic iminodiacetic acid
TCC	transitional cell carcinoma
TE	echo time
TI	time to inversion
TIA	transient ischemic attack
TIPS	transjugular intrahepatic portosystemic shunt
TMT	tarsometatarsal
TNM	tumor, node, metastasis staging
TKR	total knee replacement
TORCH	TOxoplasmosis, Rubella, Cytomegalovirus and Herpes
TR	repetition time
TRUS	transrectal ultrasound
TSE	turbo spin echo
TSH	thyroid stimulating hormone

TURBT	transurethral resection of bladder tumour
TURP	transurethral resection of the prostate
TVUS	transvaginal ultrasound
UAC	umbilical arterial catheter
UIQ	upper inner quadrant
UIP	usual interstitial pneumonia
USPIO	ultrasmall superparamagnetic iron oxide particles
USS	ultrasound scan
UOQ	upper outer quadrant
UTI	urinary tract infection
UVC	umbilical venous catheter
VA	vertebral artery
VATER	vertebrae, anus, trachea, oesophagus, radial and renal
VATS	video-assisted thoracic surgery
VHL	von Hippel-Lindau
VIP	vasoactive intestinal peptide
VISI	volar intercalated segmental instability
VMA	vanillylmandelic acid
VQ	ventilation perfusion
VSD	ventricular septal defect
VUJ	vesicoureteric junction
WCC	white cell count
WHO	World Health Organisation

NORMAL RANGES

alanine aminotransferase (ALT)	5 – 35 U/L
alkaline phosphatase (ALP)	45 – 105 U/L
alphafetoprotein (AFP)	< 44 µg/L
bilirubin	1 – 22 µmol/L
calcium	2.2 – 2.6 mmol/L
cancer antigen 125 (CA 125)	< 35 U/mL
carcinoembryonic antigen (CEA)	< 5 ng/mL
cluster of differentiation (CD4)	500 – 1600 cells/mm ³
C-reactive protein (CRP)	< 10 mg/L
creatinine	60 – 100 µmol/L
eGFR	70 – 140 mL/min
erythrocyte sedimentation rate (ESR)	0 – 20 mm/first hour
gamma-glutamyl transferase	4 – 35 U/L
glomerular filtration rate (GFR)	70 – 140 mL/min
glucose (fasting)	3.0 – 6.0 mmol/L
haemoglobin (Hb)	130 – 180 g/L (males) 115 – 165 g/L (females)
INR	0.5 – 1.2
MCV	80 – 96 fL
phosphate	0.8 – 1.4 mmol/L
platelet count	150 – 400 × 10 ⁹ /L
potassium	3.5 – 4.9 mmol/L
prolactin	80 – 520 mU/L
prostate specific antigen (PSA)	< 4 µg/L
prothrombin time	11-15 seconds
serum cholesterol	< 5.2 mmol/L
sodium	137 – 144 mmol/L
thyroid stimulating hormone (TSH)	0.3 – 5.5 miu/L
urea	2.5 – 7.5 mmol/L
white cell count (WCC)	4 – 11 × 10 ⁹ /L