Question 1

An 80-year-old woman presented to her general practitioner with a 24-hour history of profuse diarrhoea and mild abdominal pain. Her diabetes had been treated with metformin for 10 years. Two days previously, she had been discharged from hospital following treatment for community-acquired pneumonia. Her medication comprised omeprazole 20 mg once daily and metformin 850 mg twice daily.

What is the most likely explanation for her diarrhoea?

\boxtimes	Α	Clostridium difficile toxin
	В	constipation with overflow
	С	diverticulitis
	D	metformin
	E	omeprazole

Explanation: There is increased incidence of *C. difficile* after antibiotic treatment for community-acquired pneumonia. Also increased risk in those taking a PPI.



Question 2

A 76-year-old man with severe rheumatoid arthritis, who lived with his son, presented with multiple bruises. He was taking ibuprofen for pain, omeprazole 20 mg daily, prednisolone 7.5 mg daily and methotrexate 15 mg weekly.

Investigations:

 $\begin{array}{lll} \text{haemoglobin} & 76 \text{ g/L } (130-180) \\ \text{MCV} & 105 \text{ fL } (80-96) \\ \text{white cell count} & 1.0 \times 10^9 \text{/L } (4.0-11.0) \\ \text{platelet count} & 10 \times 10^9 \text{/L } (150-400) \\ \end{array}$

What is the most likely cause of his bruising?

	Α	elder abuse by the son
	В	hypersplenism due to Felty's syndrome
	С	pancytopenia related to chronic rheumatoid arthritis
	D	purpura due to long-term prednisolone
\boxtimes	Е	thrombocytopenia due to methotrexate

Explanation: Common (1–10%) haematological adverse effect of methotrexate.



Question 3

A 73-year-old man presented with a shuffling gait and increasing forgetfulness, which had been of gradual onset. He had a longstanding history of hypertension and diabetes. He had had a myocardial infarction 3 years previously and a stroke 2 years previously.

at is the most likely diagnosis?		
	Α	Alzheimer's disease
	В	cerebrovascular disease
	С	Lewy body disease
	D	normal pressure hydrocephalus
	E	Parkinson's disease

Explanation: All options are associated with gait abnormality or memory impairment. Only B and C usually present with shuffling gait and memory difficulties. The history of vascular disease favours B as the most likely.



Question 4

A 79-year-old woman presented with a sudden loss of vision in the right eye. She was taking warfarin and digoxin for chronic atrial fibrillation and had a history of longstanding hypertension. Her INR was in the therapeutic range at 2.5.

What is the most likely diagnosis?		
	Α	acute glaucoma
	В	cranial arteritis
	С	macular degeneration
	D	retinal artery occlusion
	Е	retrobulbar neuritis

Explanation: Warfarin reduces, but not abolishes, the risk of a thromboembolic event, even in the therapeutic range.



Question 5

A 79-year-old woman presented with weight loss of 10 kg over the preceding 3 months. On questioning, she admitted that she was pessimistic about the future and that she had vague gastrointestinal symptoms, including loss of appetite. She found it hard to go to sleep and tended to wake early in the morning, when she felt particularly tired, but this improved during the day. The family had noticed her complaining of memory problems over the previous 6 months or so. Her past history included a stay in a psychiatric hospital for 4 months after the birth of her son, 47 years previously.

On examination, she was thin. Although examination of her abdomen was normal, she said that she felt that there was a blockage there, which she doubted could be helped. There were no other abnormal findings.

viriatio tho most intoly diagnosis.		
	Α	Alzheimer's disease
	В	carcinoma of head of pancreas
\boxtimes	С	depression
	D	hyperthyroidism
	Е	paraphrenia

Explanation: Typical symptoms of depressive illness.

What is the most likely diagnosis?



Question 6

Ageing is associated with multiple changes in the gastrointestinal system.

What is the most clinically significant change in the gastrointestinal tract with ageing?

Α	a reduction in gut motility
В	a reduction in pancreatic secretions
С	a reduction in small intestinal absorptive area
D	an increased prevalence of atrophic gastritis
Е	an increased prevalence of Helicobacter pylori infestation

Explanation: Physiological effect of ageing on gut motility



Question 7

An 86-year-old man with significant disability following a cerebrovascular event 6 months previously lived with his wife in a privately owned bungalow. He received assistance from home care services, and the occupational therapists had provided him with several aids and appliances. However, his wife contacted the general practitioner to say that she was exhausted, as she had to provide a significant amount of care for her husband, especially at night. She was otherwise well, and the patient's condition had not recently changed.

What is the most appropriate next step in management?		
	Α	admit the husband to hospital
	В	community nurse to visit
	С	domiciliary visit from a geriatrician
	D	respite care for husband
	Е	transfer husband to nursing home

Explanation: There is no medical or physical health reason to admit him to hospital or require a geriatrician domiciliary visit or district nurse. He has a relatively good care package and adaptations in place but carer burden is evident. Respite would be a preferred option in this scenario to provide carer relief in an attempt to avoid placement into a care home.

