



**THE ROYAL AUSTRALIAN COLLEGE OF GENERAL
PRACTITIONERS**

APPLIED KNOWLEDGE TEST

PRACTICE PAPER

Please Note: This practice paper contains 12
Single Best Answer and 8 Extended Matching
Questions - the College examination will include **70**
SBAs and **80** EMQs.

Question 1

Ron Rowe, an otherwise well 30-year-old Commonwealth Games rower, presents with persistent upper left chest pain of several hours duration. The pain is not related to exertion or to respiratory effort, but does cause mild respiratory restriction. There are no related cardiac symptoms, he is afebrile and is not distressed. Which of the following should NOT be considered as a possible diagnosis?

- A. spontaneous pneumothorax
- B. functional chest pain (anxiety neurosis)
- C. costo-chondral syndrome
- D. muscle strain
- E. pleurodynia (Bornholm's disease)

Question 2

Tim Harper, a 15-year-old schoolboy athlete, consults you with high left posterior thigh pain of six days' duration. Pain and a click developed suddenly as he was competing in a one hundred metre sprint and prevented him from completing the race. He is still experiencing considerable discomfort, is limping and unable to run. Which of the following is MOST likely?

- A. slipped upper femoral epiphysis
- B. iliopsoas tendon strain
- C. indirect injury of the adductor group
- D. indirect injury of the hamstring group
- E. sciatic nerve root irritation associated with an acute lumbar disc prolapse

Question 3

An elderly patient, with rheumatoid arthritis, has been on a dose of 12.5 mg of prednisone daily for 8 years. After a fall, she complains of severe pain over her lower thoracic spine and is found to be very tender over T11 and T12 thoracic vertebral spines. A radiograph shows 'cod-fish' vertebrae, with generalised radiolucency of bones and collapse of two vertebral bodies. Examination of her serum is MOST likely to show:

- A. high calcium, low phosphate, raised alkaline phosphatase
- B. low calcium, high phosphate, normal alkaline phosphatase
- C. low calcium, low phosphate, raised alkaline phosphatase
- D. low calcium, normal phosphate, normal alkaline phosphatase
- E. normal calcium, normal phosphate, normal alkaline phosphatase

Question 4

A 3 year old child would be expected to do all of the following EXCEPT:

- A. go up stairs alternating feet
- B. copy a circle
- C. know his age and sex
- D. hop on one foot
- E. play in parallel with other children

Question 5

Sam Lewis, an avid cyclist in good health and fitness, experiences the sudden onset of severe stabbing pain in the upper anterior left chest while riding his bicycle up a hill. The MOST probable diagnosis is:

- A. a spontaneous fracture of a rib
- B. pneumothorax
- C. pericarditis
- D. dissecting aneurysm
- E. pulmonary infarction

Question 6

A patient presents with acute gout but has a normal serum uric acid. Which of the following drugs can be responsible for a low reading?

- A. colchicine
- B. prednisolone
- C. indomethacin
- D. naproxen
- E. salicylates

Question 7

While traveling on a long distance flight, you are called to attend a woman who had 'collapsed' soon after take off. The steward is administering oxygen and informs you that the patient, who was agitated prior to take off, had stated that she is prone to air sickness. On examination she is semi-conscious, very pale with a pulse of 50/min. and a respiration rate of 30/min. There are no injectable drugs on board the aircraft. You would:

- A. advise the pilot to return to the airport
- B. lie the patient flat and elevate her legs
- C. slap the patient's face and talk sternly to her
- D. continue to administer oxygen and await further developments
- E. make the patient breathe into a paper bag

Question 8

A 20 year old man was admitted to hospital because of the sudden onset of intense headache and neck stiffness. For the past 4 years, the patient had had occasional focal motor seizures on the right side of the body. Which of the following is the MOST likely diagnosis?

- A. ruptured saccular ('berry') aneurysm
- B. hypertensive cerebral haemorrhage
- C. haemorrhagic infarction
- D. haemorrhage in cerebral neoplasm
- E. arteriovenous malformation of brain

Question 9

The Director of Nursing at a nearby Nursing Home calls you to see your patient Mrs Freda Lang. Mrs Lang has been bedridden for some time because of severe osteoarthritis of the hips and a knee, and an unsuccessful repair of a fractured neck of femur and shaft of femur from a fall several years ago. She has now developed diarrhoea.

Which of the following is the MOST likely cause in such a patient?

- A. carcinoma of the rectum
- B. diverticulitis
- C. faecal impaction
- D. ischaemic colitis
- E. ulcerative colitis

Question 10

Miss Marion Brune aged 56 complains of constipation, tiredness, lethargy and lack of energy. She looks puffy in the face, is faintly yellowish in colour and has a pulse of 56 beats/minute. Her haemoglobin is 9.7 g/dl, she has macrocytosis, lymphocytosis and a raised ESR. The MOST likely diagnosis is:

- A. pernicious anaemia
- B. carcinoma of the bowel
- C. alcoholism with malnutrition
- D. hypothyroidism
- E. lymphocytic leukaemia

Question 11

15 year old Shannon Ling presents with a 5 day history of fever and 'palpitations', followed by sore throat, headache and cough over the last 24 hours. Chest X-ray shows bilateral hilar infiltrates, and the white cell count is normal. The MOST likely causative organism is:

- A. Streptococcus pneumoniae
- B. Mycoplasma pneumoniae
- C. Mycoplasma hominis
- D. Mycobacterium tuberculosis
- E. Legionella pneumophila

Question 12

A juvenile-type diabetic recently stabilised on insulin and diet, who is now showing a sudden reduction in insulin requirement will MOST probably:

- A. continue to recover from undiagnosed viral thyroiditis (or thyrotoxicosis)
- B. develop acromegaly
- C. develop a pancreatic islet cell tumour
- D. show an increase in insulin requirement within 2 months
- E. experience a permanent remission of his diabetes

EXTENDED MATCHING QUESTIONS

Weight loss

- | | | | |
|----|-------------------|----|----------------------------|
| A. | Cardiac failure | H. | Hyperthyroidism |
| B. | Coeliac disease | I. | Inflammatory bowel disease |
| C. | Depression | J. | Lymphoma |
| D. | Diabetes mellitus | K. | Malaria |
| E. | Duodenal ulcer | L. | Oesophageal stricture |
| F. | Eating disorders | M. | Substance abuse |
| G. | HIV/AIDS | N. | Tuberculosis |

For each of the following patients with weight loss, select the MOST likely diagnosis

Question 1

A 49 year old Vietnamese woman who is a factory worker, has lost 5 kg in 6 months. She complains of excess sweating, especially at night. She is irritable with poor concentration. Her pulse rate is 100/minute. She has a fine tremor and moist palms.

Question 2

A 44 year old business woman who imports artifacts and is a regular traveler to South East Asia, has lost around 4 kg in a month. She complains of severe night sweats, headaches and abdominal pain.

Headaches

- | | | | |
|----|----------------------------|----|--|
| A. | Acute sinusitis | L. | Lateral sinus thrombosis |
| B. | Angioma headache | M. | Meningitis |
| C. | Brain abscess | N. | Muscle contraction headache (tension headache) |
| D. | Cerebral tumour | O. | Oral Contraceptive Pill headache |
| E. | Cervical dysfunction | P. | Post-traumatic headache |
| F. | Chronic subdural haematoma | Q. | Psychogenic headache |
| G. | Classic migraine | R. | Subarachnoid haemorrhage |
| H. | Cluster headache | S. | Temporal arteritis |
| I. | Atypical migraine | T. | Trigeminal neuralgia |
| J. | Frontal sinusitis | U. | Viraemia |
| K. | Hypertensive headache | | |

For each of the following patients with headache, select the MOST likely diagnosis

Question 3

A 26 year old Anne Sims presents with throbbing headache over the left side of her head associated with nausea, vomiting and photophobia. It began about 2 hours ago with a feeling of elation, flushing and a craving for sweet food. This was followed by zigzag lines in the left eye and left tunnel vision. She has been getting these attacks every 3 to 4 months since she was about 14 years old.

Question 4

Colin Crawford aged 32 presents with acute onset of very severe bilateral frontal and retro-orbital headaches in the last 24 hours. He has nausea, has vomited several times, is listless and photophobic. On examination, BP 120/85, temp. 39 degrees C, pulse 115 regular, pupils react to light but the light hurts his eyes. The headache is exacerbated by bending his head forward and there is neck stiffness.

EXTENDED MATCHING QUESTIONS

Chest pain

- | | | | |
|----|----------------------------|----|------------------------|
| A. | Aortic stenosis | J. | Myocardial infarction |
| B. | Bronchial carcinoma | K. | Oesophageal reflux |
| C. | Cardiomyopathy | L. | Oesophageal spasm |
| D. | Cervical disc lesion | M. | Pericarditis |
| E. | Costochondritis | N. | Pleurisy |
| F. | Dissecting aortic aneurysm | O. | Pneumothorax |
| G. | Herpes zoster | P. | Pulmonary embolus |
| H. | Intercostal neuralgia | Q. | Pulmonary hypertension |
| I. | Lobar pneumonia | R. | Tracheobronchitis |

For each of the following patients with chest pain, select the MOST likely diagnosis

Question 5

59 year old Bob Brown presents with 'heavy' central chest pain for the last 1/2 hour, radiating to the neck, the left shoulder and upper arm. He feels weak, sweaty and breathless. On examination he appears pale, restless and anxious and belches frequently. His BP is 140/85, heart sounds are regular and lungs clear. ECG shows elevated ST segment and inverted T waves in leads II, III and aVF, and depressed ST segment and tall T waves in aVL. Chest X-ray is NAD.

Question 6

Mrs Muriel Browne aged 62 presents with a history of retrosternal pain radiating to the back and to the throat. She has been getting these pains on and off for some weeks, and they usually last only a few minutes. They often come on at rest and may be associated with sweating and dysphagia. On examination her BP is 140/85, heart sounds normal, lungs clear and the abdomen is NAD.

Abdominal pain

- | | | | |
|----|----------------------------|----|-----------------------------|
| A. | Acute appendicitis | K. | Herpes zoster |
| B. | Acute pancreatitis | L. | Inguinal hernia |
| C. | Bowel obstruction | M. | Irritable bowel syndrome |
| D. | Carcinoma of pancreas | N. | Mesenteric artery embolus |
| E. | Carcinoma of stomach | O. | Pelvic inflammatory disease |
| F. | Chronic pancreatitis | P. | Peptic ulcer |
| G. | Dissecting aortic aneurysm | Q. | Perforated peptic ulcer |
| H. | Diverticulitis | R. | Porphyria |
| I. | Ectopic pregnancy | S. | Torsion of testis |
| J. | Gall bladder colic | T. | Ureteric calculus |

For each of the following patients with abdominal pain, select the MOST likely diagnosis

Question 7

14 year old Tommy Sutton presents complaining of abdominal pain of about 6 hours duration. It began around his umbilical area and was coming in paroxysms. However it is now constant and more severe, and has localised in the right iliac area. It is aggravated by movement and by coughing, he is off his food and feels nauseated. On examination, temperature. 37.6 degrees C, pulse 90, urine NAD. He is tender to palpation and to percussion in the right lower quadrant. There is hyperaesthesia over the RIF. On rectal examination he is tender on the right.

Question 8

Mr Ted Piper aged 62 presents with a history of vague upper abdominal discomfort and fullness after meals over the last 3 months. More recently the pain has been mild and constant in the epigastrium. He has lost his appetite has some nausea and weight loss. On examination he appears a little pale, his urine is NAD, there is no abdominal tenderness and no palpable masses. Hb is 9.6 gm/dl.