



# **REGISTRATION EXAMINATION SAMPLE PAPER<sup>1</sup>**

**Spring 2009 (for examination sittings in 2009)**

**PART I (CLOSED BOOK)<sup>2</sup>**

## **Instructions to candidates:**

1. For each question there are five options **A, B, C, D** and **E**. Choose only one of the options as your answer for each question.
2. **You should answer the questions as though you were a registered pharmacist, not a preregistration trainee.**
3. There are 45 questions in this paper i.e. the paper is half the size of the actual registration examination closed book paper.
4. You should score one mark for each correct answer: no marks to be deducted for incorrect answers or omissions.
5. The time allowance for this paper is 45 minutes.

<sup>1</sup>All questions in the sample paper are taken from previous sittings of the **RPSGB registration examination**. **(Amendments have been made where necessary to ensure that the questions are still contemporary.)** The sample paper is matched to the actual examination in terms of word count, syllabus coverage, ratio of question types and overall facility (the fraction of candidates getting the questions correct).

<sup>2</sup>If you are using this sample paper as part of a "mock" examination, please note that in the "real" examination candidates undertake the **closed book paper first**.

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**SECTION I**  
**(13 questions)**

**Directions for questions 1 to 13.** Each of the questions or incomplete statements in this section is followed by five suggested answers. Select the best answer in each case.

1. An elderly woman complains of a rash which starts centrally in the upper-left region of her back, and follows a line around her body to the front, terminating just below her left breast. She further informs you that there are one or two blisters present in this rash, and that it is accompanied by an intense tingling sensation like "pins and needles". These symptoms are typical of which one of the following conditions?
  - A allergy to clothing containing nylon
  - B impetigo
  - C eczema
  - D rosacea
  - E shingles
  
2. The relatives of a deceased patient return a quantity of out-of-date prescription-only medicines (POMs) to your pharmacy. Which one of the following is the preferred method of disposal?
  - A dissolve the medicines in water and wash down the drain
  - B wrap the medicines in a secure container and place in a dustbin for domestic waste disposal
  - C dissolve the medicines in water and flush down the toilet
  - D arrange for the medicines to be disposed of by an approved agent
  - E store the medicines until a Royal Pharmaceutical Society Inspector can supervise the disposal of them

3. While running a workshop on pharmacokinetics for a group of pharmacy students you are asked to explain what is meant by 'half-life'. To check that they have understood your explanation you ask them to answer the following question.

If a medicine has a plasma elimination half-life of 4 hours how much of the medicine present in the plasma will be eliminated after 8 hours?

The correct answer is:

- A 25%
  - B 40%
  - C 50%
  - D 67%
  - E 75%
4. After visiting his GP complaining of chest pain Mr P is found to have angina. Routine tests show that he also has type 2 diabetes mellitus. As a result he is prescribed the medicines listed below. Soon after starting the new medicines Mr P returns to see his GP complaining of severe headaches, which he has **not** experienced before. The GP suspects that he could be experiencing an adverse drug reaction and asks for your advice. Which one of the following medicines is **most** likely to be implicated?
- A gliclazide
  - B atorvastatin
  - C aspirin
  - D isosorbide mononitrate
  - E enalapril

5. Which one of the following is appropriate for the initial management of a patient with diabetic ketoacidosis?
- A glucose intravenous infusion
  - B gliclazide tablets
  - C soluble insulin injection
  - D glucagon injection
  - E calcium chloride injection
6. Mr S is 45 years old and regularly takes the following medication:
- warfarin tablets 3 mg once daily
  - amlodipine tablets 5 mg once daily
  - paracetamol tablets 500 mg, two when required up to four times daily
- Initiating therapy with erythromycin tablets 500 mg four times daily to treat an atypical chest infection is likely to result in:
- A a clinically significant fall in his international normalised ratio (INR)
  - B a clinically significant rise in his INR
  - C **no** effect on his INR
  - D a rise in his INR of **no** clinical importance
  - E a fall in his INR of **no** clinical importance
7. Mr G takes isoniazid as part of his treatment regimen for tuberculosis. When he presents his prescription he asks you why he has also been prescribed pyridoxine. Which one of the following adverse effects of isoniazid can be prevented by the prophylactic use of pyridoxine?
- A agranulocytosis
  - B nausea
  - C peripheral neuropathy
  - D skin rash
  - E hepatitis

8. It is normal practice when dispensing beta-adrenoceptor blocking drugs that you add which one of the following cautionary labels to the container?
- A ... with or after food
  - B Warning. Avoid alcoholic drink
  - C Do not stop taking this medicine except on your doctor's advice
  - D Warning. May cause drowsiness. If affected do not drive or operate machinery
  - E ... with plenty of water
9. A patient asks if he can return a box of MST Continus (modified-release morphine sulphate) 10 mg tablets which are no longer needed. The box is unopened and the tablets do **not** expire for a further two years. What should you do?
- A accept the tablets and arrange for their disposal **without** entering receipt in the Controlled Drug register
  - B enter receipt of the tablets in the Controlled Drug register and put them into stock
  - C enter receipt of the tablets in the Controlled Drug register and await arrival of an approved person to supervise the disposal of them
  - D accept the tablets and put them into stock **without** entering receipt in the Controlled Drug register
  - E enter receipt of the tablets in the Controlled Drug register and arrange for their immediate disposal

10. A man in his 30's asks you to recommend a painkiller for him. On questioning him he tells you that he takes lithium tablets. Which one of the following drugs commonly included in non-prescription analgesic preparations would **not** be appropriate for this patient?
- A dihydrocodeine
  - B caffeine
  - C codeine
  - D paracetamol
  - E ibuprofen
11. A 40-year-old man asks for your advice about the treatment of mouth ulcers. On further questioning he tells you that he also has a sore throat and feels feverish. He currently takes mesalazine for ulcerative colitis, and occasionally takes temazepam at night. Which one of the following is the best course of action?
- A advise him to use Corlan (hydrocortisone) pellets
  - B advise him to use Orabase (carmellose sodium) oral paste
  - C advise him to use Merocaine (benzocaine & cetylpyridinium) lozenges
  - D advise him to see his GP as soon as possible
  - E advise/reassure him that the condition will improve **without** any treatment
12. Mrs C visits your pharmacy and asks you to recommend something to ease the pain and swelling in her big toe. After asking Mrs C some additional questions you suspect that she may be suffering from gout, and you check your patient medication record system (PMR) to see if she is taking any medicines which could have caused it. Which one of the following medicines is most likely to have caused Mrs C's gout?
- A bendroflumethiazide tablets
  - B diclofenac tablets
  - C amitriptyline tablets
  - D salbutamol inhaler
  - E beclometasone inhaler

- 13.** Mrs H asks you to recommend a suitable treatment for a rash on her arm. After questioning Mrs H and examining her arm you suspect that she has a ringworm infection. Mrs H seems surprised when you tell her and asks what that is. You should tell her that ringworm is:
- A** a viral infection
  - B** a fungal infection
  - C** a bacterial infection
  - D** an infestation with parasitic worms
  - E** an infestation with mites

**SECTION II**  
**(11 questions)**

**Directions for questions 14 to 24.** For each numbered question select from the list above it the one lettered option which is most closely related to it. Within each group of questions each lettered option may be used once, more than once, or not at all.

**Questions 14 and 15** concern the following vitamins:

- A**     vitamin B<sub>1</sub>
- B**     vitamin B<sub>12</sub>
- C**     pantothenic acid
- D**     vitamin D
- E**     vitamin K

Select, from **A** to **E**, which one of the above:

- 14.**    is given to babies to prevent haemorrhagic disease of the newborn
- 15.**    can cause hypercalcaemia in overdose

**Questions 16 to 20** concern the following actions:

- A** advise the patient that the symptom(s) they have described is/are **not** known to be caused by the medicine
- B** advise the patient to see their GP as the dose of the medicine may need to be increased
- C** advise the patient to see their GP as the dose of the medicine may need to be reduced
- D** advise the patient that they are experiencing a side effect of the medicine. It is safe to continue taking the medicine, but they may wish to see their GP for an alternative
- E** advise the patient to stop taking the medicine straight away, and to see their GP as soon as possible

Select, from **A** to **E**, which one of the above applies to the following patients:

- 16.** a patient taking nifedipine m/r tablets who complains of facial flushing
- 17.** a patient taking simvastatin who complains of unexplained muscle pain
- 18.** a patient taking carbimazole who complains of 'feeling sluggish'
- 19.** a patient taking fluoxetine capsules who complains of nausea
- 20.** a patient taking diclofenac tablets who complains of constipation

**Questions 21 to 24** concern the following antibiotics:

- A** flucloxacillin capsules
- B** doxycycline capsules
- C** metronidazole tablets
- D** ciprofloxacin tablets
- E** amoxicillin capsules

Select, from **A** to **E**, which one of the above antibiotics:

- 21.** should be taken an hour before food or on an empty stomach
- 22.** should **not** be used routinely in children under 12 years due to deposition in growing bones and teeth
- 23.** may impair the performance of skilled tasks e.g. driving
- 24.** has high activity against anaerobic bacteria

**SECTION III**  
**(12 questions)**

**Directions for questions 25 to 36.** Each of the questions or incomplete statements in this section is followed by three responses. For each question **ONE** or **MORE** of the responses is (are) correct. Decide which of the responses is (are) correct. Then choose:

- A** if **1, 2** and **3** are correct
- B** if **1** and **2** only are correct
- C** if **2** and **3** only are correct
- D** if **1** only is correct
- E** if **3** only is correct

<b>Directions Summarised</b>				
<b>A</b> <b>1, 2, 3</b>	<b>B</b> <b>1, 2</b> only	<b>C</b> <b>2, 3</b> only	<b>D</b> <b>1</b> only	<b>E</b> <b>3</b> only

- 25.** Which of the following women is considered to be at high risk of having a child with a neural tube defect?
- 1** a woman with spina bifida
  - 2** a woman whose partner has spina bifida
  - 3** a woman whose partner is taking antiepileptic medication
- 26.** For which of the following would monitoring of serum-drug levels be useful in optimising the dosage regime?
- 1** phenytoin therapy
  - 2** levothyroxine therapy
  - 3** gliclazide therapy

Directions Summarised				
<b>A</b> 1, 2, 3	<b>B</b> 1, 2 only	<b>C</b> 2, 3 only	<b>D</b> 1 only	<b>E</b> 3 only

27. Which of the following conditions apply when a pharmacist makes an emergency supply to a patient of a prescription-only medicine (POM) at the request of a doctor?
- 1 the doctor must undertake to furnish a prescription within 24 hours
  - 2 the patient must have previously been prescribed the medicine by the doctor
  - 3 the pharmacist must be satisfied that the request is from a doctor who by reason of some emergency is unable to furnish a prescription immediately
28. The use of medicines in patients with renal impairment may be problematic because:
- 1 some medicines are less effective when renal function is reduced
  - 2 many side-effects are poorly tolerated by patients with renal failure
  - 3 patients may be more sensitive to medicines even if elimination is **not** impaired
29. Mr D visits his doctor complaining of a sore mouth and is found to have oral candidiasis. Which of his current medicines is/are likely to have increased his risk of developing oral candidiasis?
- 1 salbutamol metered-dose inhaler (MDI)  
100 micrograms/metered inhalation
  - 2 beclometasone MDI 100 micrograms/metered inhalation
  - 3 amoxicillin capsules 250 mg

Directions Summarised				
<b>A</b> 1, 2, 3	<b>B</b> 1, 2 only	<b>C</b> 2, 3 only	<b>D</b> 1 only	<b>E</b> 3 only

30. Which of the following is/are part of ensuring clinical governance in pharmacy?

- 1 a system for performance related pay
- 2 a complaints procedure
- 3 a procedure to deal with poor performance

31. When questioning an adult who is asking for advice about the treatment of indigestion, which of the following factors would indicate that the client definitely should be advised to see their GP?

- 1 associated weight loss
- 2 pain which is aggravated by exercise
- 3 symptoms that are precipitated by bending

32. Mrs G visits your pharmacy on 25.3.09 to ask for your advice. She is concerned that her stools are darker than usual.

Your PMR record for Mrs G is as follows:

10.3.09	ferrous sulphate tablets	200 mg i bd	56
10.3.09	lansoprazole capsules	30 mg i om	28

She takes **no** other medication.

Regarding the above scenario, which of the following statements is/are true?

- 1 the change in Mrs G's stools could be the result of gastrointestinal bleeding
- 2 the change in Mrs G's stools could be the result of taking ferrous sulphate tablets
- 3 the change in Mrs G's stools could be the result of taking lansoprazole capsules

<b>Directions Summarised</b>				
<b>A</b> 1, 2, 3	<b>B</b> 1, 2 only	<b>C</b> 2, 3 only	<b>D</b> 1 only	<b>E</b> 3 only

- 33.** According to the Royal Pharmaceutical Society's Code of Ethics for Pharmacists and Pharmacy Technicians, which of the following is/are requirement(s) for pharmacists?

Pharmacists must:

- 1 act in the interest of their employers at all times
- 2 honour commitments for the provision of pharmacy services
- 3 maintain and improve the quality of their work by keeping their knowledge and skills up to date

- 34.** A middle-aged man asks for your advice. He has recently developed diarrhoea and wonders if it could be caused by any of his medicines. Which of the following medicines commonly cause diarrhoea?

- 1 magnesium trisilicate mixture
- 2 tramadol capsules
- 3 amitriptyline tablets

- 35.** Which of the following should be dispensed using the same manufacturer's product as previously dispensed?

- 1 lithium carbonate 400 mg tablets
- 2 theophylline MR 300 mg tablets
- 3 digoxin 125 microgram tablets

<b>Directions Summarised</b>				
<b>A</b> <b>1, 2, 3</b>	<b>B</b> <b>1, 2</b> only	<b>C</b> <b>2, 3</b> only	<b>D</b> <b>1</b> only	<b>E</b> <b>3</b> only

**36.** A woman buying antimalarials asks you to advise her on ways to protect against mosquito bites. Which of the following is/are appropriate for you to recommend to provide protection against bites?

- 1** she should take vitamin C tablets
- 2** she should wear long sleeves and trousers after dusk
- 3** she should regularly apply a topical insect repellent

**SECTION IV  
(9 questions)**

**Directions for questions 37 to 45.** The following questions consist of a statement in the left-hand column followed by a second statement in the right-hand column.

Decide whether the **first** statement is true or false.

Decide whether the **second** statement is true or false.

Then choose:

- A** if both statements are true and the second statement is a **correct explanation** of the first statement
- B** if both statements are true but the second statement is **NOT a correct explanation** of the first statement
- C** if the first statement is true but the second statement is false
- D** if the first statement is false but the second statement is true
- E** if both statements are false

<b>Directions Summarised</b>			
	<b>First Statement</b>	<b>Second Statement</b>	
<b>A</b>	True	True	2nd statement is a <b>correct explanation</b> of the first
<b>B</b>	True	True	2nd statement is <b>NOT a correct explanation</b> of the first
<b>C</b>	True	False	
<b>D</b>	False	True	
<b>E</b>	False	False	

**37.**

**FIRST STATEMENT**

It would be permissible for a pharmacist with religious beliefs that prevent him/her from supplying products for the control of fertility or conception to refer all requests for non-prescription emergency hormonal contraceptives to a suitably trained pharmacy counter assistant

**SECOND STATEMENT**

A pharmacist may object to supplying particular treatments on the grounds of conscience

<b>Directions Summarised</b>			
	<b>First Statement</b>	<b>Second Statement</b>	
<b>A</b>	True	True	2nd statement is a <b>correct explanation</b> of the first 2nd statement is <b>NOT a correct explanation</b> of the first
<b>B</b>	True	True	
<b>C</b>	True	False	
<b>D</b>	False	True	
<b>E</b>	False	False	

**Questions 38 and 39** concern the development of an antibiotic formulary and policy for your district:

**38.**

**FIRST STATEMENT**

Antibiotic therapy should always be initiated prior to taking a sample for bacteriological testing

**SECOND STATEMENT**

The choice of antibiotics for initial therapy (best guess) should be based on knowledge of prevalent organisms and their current sensitivities

**39.**

**FIRST STATEMENT**

It would be appropriate to recommend that a short course of antibiotics (e.g. 3 days) is used to treat uncomplicated urinary-tract infections in women

**SECOND STATEMENT**

Urinary-tract infections occur more commonly in women than men

**40.**

**FIRST STATEMENT**

Keeping records of administration errors is an element of clinical governance

**SECOND STATEMENT**

Regular review of errors allows continuous quality improvement

**41.**

**FIRST STATEMENT**

NHS Direct / NHS 24 (Scotland) is a helpline for healthcare professionals

**SECOND STATEMENT**

The role of NHS Direct / NHS 24 (Scotland) is to provide information to support clinicians in making decisions about the management of their patients

<b>Directions Summarised</b>			
	<b>First Statement</b>	<b>Second Statement</b>	
<b>A</b>	True	True	2nd statement is a <b>correct explanation</b> of the first 2nd statement is <b>NOT a correct explanation</b> of the first
<b>B</b>	True	True	
<b>C</b>	True	False	
<b>D</b>	False	True	
<b>E</b>	False	False	

**42.**

**FIRST STATEMENT**

Where possible medicines for children should be prescribed within the terms of the marketing authorisation (product licence)

**SECOND STATEMENT**

The Medicines Act prohibits the use of licensed medicines for applications outside their marketing authorisation

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**Question 43** concerns a 35-year-old man who asks you to recommend some tablets for hay fever that are **unlikely** to make him drowsy. He is otherwise well and takes **no** other medication.

**FIRST STATEMENT**

It would be appropriate for you to recommend loratadine tablets for this man

**SECOND STATEMENT**

Loratadine has a long duration of action allowing once daily dosing

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**44.**

**FIRST STATEMENT**

An audit is complete once any necessary changes have been identified and implemented

**SECOND STATEMENT**

Audit is a non-cyclical process by which problems are identified and addressed

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Directions Summarised			
	First Statement	Second Statement	
<b>A</b>	True	True	2nd statement is a <b>correct explanation</b> of the first 2nd statement is <b>NOT a correct explanation</b> of the first
<b>B</b>	True	True	
<b>C</b>	True	False	
<b>D</b>	False	True	
<b>E</b>	False	False	

**Question 45** concerns the information on the following standard NHS prescription which has been issued by a GP for a 13-year-old child. You receive the prescription on 25/3/09:

Pharmacy Stamp  <i>Please don't stamp age box</i>	Age  D.o.B	Title, Forename, Surname & Address  <i>Amy Smith</i>  <i>10 Town Street</i> <i>Townsville</i>
Number of days' treatment N.B. Ensure dose is stated		
Endorsements	<i>Amoxicillin capsules</i> <i>250 mg</i> <i>Sig. 250 mg tds</i> <i>Mitte: 15</i>	
Signature of Prescriber <i>K Kennedy</i>		Date 25/3/09
For Dispenser No. of Presns. on form <input type="checkbox"/>	Dr K KENNEDY TOWNSVILLE PRACTICE 7 HIGH STREET TOWNSVILLE TEL: 0120 123 4567 Newtown PCT	123456  AN1 1AB 51A
<b>NHS</b> PATIENTS – please read the notes overleaf		

### FIRST STATEMENT

This prescription is **not** legally valid

### SECOND STATEMENT

Inclusion of age is a legal requirement in the case of prescription-only medicines for children under 16 years of age

**END OF QUESTIONS**

**Now go back and check your work**