



# **Australian Pharmacy Council Ltd**

## **Knowledge Assessment of Pharmaceutical Sciences**

### **(KAPS)**

### **Paper 2 Sample 2**

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- 1 The elimination half-life of penicillin G is approximately 0.5 hours. Thus when administered IV every six hours
- A Half the administered dose will be eliminated in the urine at one hour
  - B Little accumulation of penicillin in the body will occur after repeated administration
  - C Each dose will only act for half an hour
  - D It will take an hour for each dose to be eliminated
  - E All of the administered dose will be metabolized one hour after taking the dose
- 2 Which ONE of the following insulin preparations has a duration of action of less than 12 hours?
- A Insulin injection B.P. (neutral insulin)
  - B Insulin zinc suspension
  - C Crystalline insulin zinc suspension
  - D Protamine zinc insulin (isophane insulin)
  - E Insulin glargine
- 3 After initial immunisation with tetanus toxoid, booster injections should be given every
- A Year
  - B Two years
  - C Three years
  - D Five years
  - E Ten years

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- 4 The Rideal-Walker test is used to measure the
- A Presence of bacteria in eye drops
  - B Sporulation rate of bacteria
  - C Germicidal efficiency of disinfectants
  - D Multiplication rate of bacteria
  - E Viral contamination in injections
- 5 Fluphenazine dodecanoate is administered:
- A Orally
  - B Intravenously
  - C Intramuscularly
  - D By topical application
  - E Subcutaneously
- 6 In some situations there may **NOT** be an obvious relationship between the intensity of the pharmacological response of a drug and the plasma concentration of that drug because:
- A The drug may be slowly absorbed
  - B The drug irreversibly interacts with the receptor
  - C Pharmacological response is related to the dose
  - D The drug may be metabolised quickly

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- 7 Which ONE of the following statements is **INCORRECT**? Sublingual drug administration is suitable for drugs that:
- A Have a high molecular weight
  - B Have high lipid solubility
  - C Undergo presystemic metabolism in the liver
  - D Are non-ionic
- 8 What is meant by the term "steady state" in relation to the plasma levels of a drug?
- A Where the rate of drug administration equals the rate of drug elimination
  - B Where the dosing interval of the drug remains constant
  - C Where the concentration of drug in the plasma exceeds the minimum effective (or minimum inhibitory) concentration for the particular drug
  - D The period after therapeutically effective levels have been reached
  - E Where protein binding of a drug has come to equilibrium
- 9 Which ONE of the following suppository bases is immiscible with body fluids?
- A Gelatin
  - B Polyethylene glycol
  - C Glycerinated gelatin
  - D Cocoa butter
  - E Macrogol base

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10 Given that:

- (i) ascorbic acid (Vitamin C), in an aqueous mixture decomposes by first order kinetics and
- (ii) the half-life of ascorbic acid in this mixture at shelf temperature is 8 months,

What is the acceptable shelf-life of ascorbic acid in aqueous solution assuming that it is unacceptable when its initial concentration is reduced by  $1/8$ ?

- A 0.2 month
- B 0.5 month
- C 1.5 months
- D 3.0 months
- E 4.0 months

11 Which ONE of the following statements about capsules is **NOT** true?

- A Liquids can be filled into capsules made from soft or hard gelatine
- B Capsules should be stored in areas of low humidity
- C In general, increasing the packing density results in a decrease in dissolution rate
- D In general, the bioavailability of a powdered drug from a hard gelatine capsule is less than that of the same drug in a compressed tablet
- E Soft gelatine capsules may have an antifungal preservative added to the capsule shell

12 A suitable method for the sterilisation of a solution of a thermolabile drug for ophthalmic use is

- A Heating with a bactericide at 100 °C for 30 min
- B Aseptic filtration through a membrane filter of 4 micron pore size
- C Autoclaving at 121 °C for 15 min
- D Aseptic filtration through a membrane filter of 0.2 micron pore size
- E Heating at 60 °C for 15 min

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13 A drug active against methicillin-resistant staphylococcal strain is:

- A Gentamicin
- B Cephalothin
- C Erythromycin
- D Vancomycin
- E Tetracycline

14 Stearyl alcohol, cetyl alcohol, cholesterol and other related compounds are used as

- A Solvents for steroidal drug prescriptions
- B Preservatives in small volume parenteral preparations
- C Primary emulsifiers for oil in water preparations
- D Stabilisers in emulsion formulations
- E Surfactants for topical preparations

15 Cocaine has two ester bonds that hydrolyse to produce either benzoylecgonine or ecgonine methyl ester. At 40 °C and pH 7.25, cocaine has a half-life of 5 h.

If the total extent of degradation is not allowed to be more than 10% what would the shelf-life be for cocaine under those conditions?

- A 0.76 h
- B 1.52 h
- C 3.0 h
- D 7.5 h

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- 16 Certain tablets contain micronised drug particles because:
- A Coarse particles irritate the gastrointestinal tract
  - B They have higher bioavailability
  - C Tablets prepared from this form disintegrate more rapidly
  - D They are intended to act locally
  - E They enhance pinocytosis
- 17 Surface-active agents are included in some tablets to
- A Increase the bulk of the tablet
  - B Make the tablet easier to swallow
  - C Reduce the disintegration rate of the drug
  - D Improve the flow properties of the granules
  - E Increase the dissolution rate of the drug
- 18 Morphine in a 70 kg patient taking 20 mg sustained-release capsules twice daily was found to have a steady-state concentration of 4 ng/mL. Assuming a bioavailability of 25%, the clearance of morphine from this patient was
- A 30 L/h
  - B 52 L/h
  - C 104 L/h
  - D 208 L/h

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- 19 Particle size and crystal structure are generally important factors in bioavailability from oral dosage forms when:
- A The drug is relatively insoluble in water (less than 1%)
  - B The molecular weight of the drug is high (exceeds 1000)
  - C The drug is administered as a solution
  - D The characteristics of the drug are such that it is not absorbed from the gastrointestinal tract
  - E It is a racemic mixture of isomers
- 20 A prescription calls for 0.1% chlorhexidine hydrochloride in an oil-in-water emulsion cream base. Which ONE of the following is the **MOST** suitable emulgent for the preparation of the base?
- A Sodium lauryl sulphate
  - B Wool alcohols
  - C Cetrimide
  - D Sodium stearate
  - E Calcium oleate
- 21 Total parenteral nutrition fluids should be stored
- A Between 2 °C and 8 °C
  - B In the freezing compartment
  - C In a cool place
  - D Between 15 °C and 25 °C
  - E At 37.5 °C



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22	Chalk	1.5 g
	Light kaolin	2.5 g
	Alum	10 mg
	Concentrated chloroform water	0.25 mL
	Purified water	10 mL

The inclusion of the alum in the above formulation is to

- A Flocculate the kaolin
  - B Peptise the chalk
  - C Act as a preservative
  - D Act as an astringent
  - E Act as a chelating agent
- 23 Dosage adjustment in patients with renal impairment can be based on:
- A Urine volume (24 hour)
  - B Glucose level in urine
  - C Serum albumin concentration
  - D Specific gravity of urine
  - E Serum creatinine concentration
- 24 Which of the following drugs is NOT used sublingually?
- A Glyceryl trinitrate
  - B Isosorbide nitrate
  - C Ergotamine tartrate
  - D Ergometrine maleate

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- 25 Psyllium is **MOST** likely to be used to manage the side effect of which medication?
- A Piroxicam
  - B Metoclopramide
  - C Amitriptyline
  - D Dexamethasone
  - E Zinc sulphate
- 26 A soap can be formed by a reaction between:
- A An alcohol and an organic (fatty) acid
  - B A phenol and an inorganic acid (such as sulphuric)
  - C An inorganic base and an inorganic acid
  - D An inorganic base and an organic acid
  - E An organic base and an inorganic acid
- 27 Sodium polystyrene sulfonate achieves its therapeutic effect by acting as an exchange resin. Which ONE of the following ions is exchanged with sodium?
- A Potassium
  - B Phosphorus
  - C Calcium
  - D Chloride
  - E Lithium

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- 28 The elimination half-life for ranitidine is approximately 2 hours. What percentage of this drug would be eliminated from the body 4 hours after an intravenous (IV) bolus dose?
- A 12.5%
  - B 25%
  - C 50%
  - D 75%
  - E 87.5%
- 29 The antiarrhythmic agent, lignocaine, is unsuitable for oral administration because it:
- A Is not absorbed from the gastrointestinal tract
  - B Is metabolised rapidly in the liver to inactive compounds
  - C Causes nausea and vomiting
  - D Is decomposed by gastric acid
  - E Binds to mucoproteins in the intestine
- 30 Chlorocresol is used as a preservative in oil-in-water creams at a percentage concentration of
- A 0.001
  - B 0.01
  - C 0.1
  - D 0.5
  - E 1.0

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- 31 The usual starting dose for venlafaxine is
- A 37.5 mg daily
  - B 150 mg daily
  - C 75 mg daily
  - D 300 mg at night
  - E 30 mg twice daily
- 32 The most common side effect(s) associated with ketoconazole is/are
- A Fever and abnormal kidney function
  - B Hypersensitivity reactions
  - C Gastrointestinal disturbances and headache
  - D Gastrointestinal disturbances
  - E Headache
- 33 All of the following statements apply when considering oestradiol nasal spray **EXCEPT**:
- A It is as effective as oestradiol tablets and patches for the relief of postmenopausal symptoms
  - B Administration via the nasal mucosa avoids the first pass effect, allowing a smaller dose of oestrogen to be used
  - C Local effects such as nosebleeds, sneezing and rhinorrhea
  - D Should be used at the same time each day
  - E Is effective as a contraceptive in the peri-menopause period

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34 In the management of gout, all of the following statements are correct **EXCEPT**:

- A Allopurinol should not be used to treat acute attacks
- B Thiazide diuretics can precipitate gout
- C Probenecid should be avoided in patients with severe renal impairment
- D Aspirin is a suitable medication for an acute attack
- E A common side-effect of colchicine is constipation

35 Which ONE of the following represents the highest concentration?

- A 10 mg/mL
- B 100 parts per million
- C 1 in 20,000
- D 0.01 mg/mL
- E 1 mg/L

36 Toxic effects of the tricyclic antidepressants include all of the following **EXCEPT**:

- A Sedation
- B Electrocardiographic abnormalities
- C Retinal degeneration
- D Blurred vision
- E Urinary retention

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37 The maximum recommended dose of acarbose is:

- A 100 mg
- B 450 mg
- C 600 mg
- D 750 mg
- E 900 mg

38 Paraffin is what type of laxative?

- A Stimulant
- B Bulk-forming
- C Surfactant
- D Osmotic
- E Lubricant

39 A woman brings the following prescription to the pharmacy after visiting the oncologist:

Sucralfate	1 g	8 tablets
Sorbitol	70%	40 mL
Water qs ad	120 mL	
Sig: swish and expectorate	10 mL q 4h	

How much sucralfate is in 10 mL of this product?

- A 66.7 mg
- B 500 mg
- C 0.667 g
- D 1.0 g
- E 6.7 g

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- 40 All of the following statements regarding black cohosh are true **EXCEPT**:
- A Oestrogenic effects
  - B Elevation of liver enzymes
  - C Minimises hot flushes
  - D The active constituent is oestrogen
  - E Has positive effects on vaginal epithelium
- 41 Over the counter aspirin-containing preparations are generally not recommended for children under the age of 16 years because of the risk of
- A Cross sensitivity with peanut allergy
  - B Skin rashes
  - C Raynaud's syndrome
  - D Reye's syndrome
  - E Anaphylaxis
- 42 Patients given monoamine oxidase inhibitors (MAOI) should avoid matured cheese in their diet because substances are present in cheese that:
- A Interfere with the metabolism of MAOI
  - B Have MAOI activity
  - C Release noradrenaline
  - D Release histamine
  - E Prevent the absorption of MAOI

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43 Clinically significant drug interactions occur between warfarin and

- A Sodium valproate
- B Paroxetine
- C Omeprazole
- D Fluconazole
- E Gentamicin

44 Which ONE of the following is **NOT** an osmotic laxative?

- A Lactulose
- B Macrogol
- C Magnesium sulphate
- D Sorbitol
- E Bisacodyl

45 What needle size has the smallest diameter?

- A 28 gauge
- B 25 gauge
- C 22 gauge
- D 19 gauge
- E 18 gauge



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46 Which ONE of the following statements about alcoholic and aqueous echinacea extracts does **NOT** apply?

They:

- A Have in vitro antiviral activity
- B May enhance immunosuppressive therapy
- C Are stated to possess vasodilator properties
- D Have been used for boils, carbuncles and abscesses
- E Have been used for nasopharyngeal catarrh

47 The anthracycline group of antineoplastic drugs (eg doxorubicin, epirubicin, daunorubicin) are associated with which ONE of the following groups of adverse effects?

- A Neurotoxicity, constipation, alopecia
- B Ototoxicity, renal impairment, alopecia
- C Cardiotoxicity, tissue necrosis if extravasated, nausea and vomiting
- D Renal toxicity, hepatotoxicity, oral ulceration

48 Which of the following is a potential common problem with the use of fluoxetine?

- A Agranulocytosis
- B Systemic lupus erythematosus
- C Inhibition of hepatic metabolism of other drugs
- D Antioestrogenic effects
- E Hypertension

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- 49 When determining the appropriate dosage of frusemide for an individual patient, it is most appropriate to consider
- A The liver function of the patient
  - B The patient's current frusemide dose
  - C **Both** the liver function of the patient **and** the patient's current frusemide dose
  - D The renal function of the patient
  - E **Both** the renal function of the patient **and** the patient's current frusemide dose
- 50 Which of the following is **TRUE**?
- A Zanamivir should not be used in pregnancy
  - B Zanamivir should be used in all patients with asthma who get the flu
  - C Chronic obstructive pulmonary disease patients who get the flu are advised to take zanamivir as soon as possible
  - D Gastrointestinal reactions to zanamivir are of major significance
  - E Zanamivir is active against *Haemophilus influenzae*
- 51 Which treatment course with gentamicin is more likely to cause nephrotoxicity?
- A 1 mg/kg three times a day for 14 days
  - B 1 mg/kg twice a day for 10 days
  - C 3 mg/kg twice a day for 5 days
  - D 5 mg/kg once a day for 5 days
  - E 7 mg/kg once a day for 3 days

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52     **SULFACETAMIDE EYE-DROPS**

Sulphacetamide sodium	10 g
Sodium metabisulphite	0.1 g
Disodium edetate	0.05 g
Phenylmercuric nitrate	0.002 g
Water for injections to	100 mL

The phenylmercuric nitrate is available as a sterile aqueous solution containing 3 mg in 10 mL. The volume of this solution required to prepare 15 mL of the above formula is:

- A     0.3 mL
- B     1.0 mL
- C     1.5 mL
- D     5.0 mL
- E     10.0 mL

53     Clotrimazole is available in pessary form to treat vaginal candidiasis. The correct dose is:

- A     500 mg as a single dose at bedtime
- B     100 mg daily at bedtime for 10 days
- C     500 mg daily at bedtime for 3 days
- D     100 mg daily at bedtime for 14 days

54     Which ONE of the following drugs may induce thyrotoxicosis?

- A     Lithium
- B     Carbimazole
- C     Amiodarone
- D     Phenytoin
- E     Propranolol

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- 55 Moclobemide is a reversible inhibitor of the enzyme monoamine oxidase. The frequency and severity of food and drug interactions with the traditional irreversible monoamine oxidase inhibitors is significantly reduced with this drug.

However, moclobemide should NEVER be prescribed in combination with:

- A Ranitidine
  - B Amoxycillin
  - C Nitrazepam
  - D Pethidine
  - E Frusemide
- 56 If a patient has been ordered salbutamol aerosol and beclomethasone aerosol, both to be inhaled four times a day, the patient should inhale the beclomethasone:
- A 10 minutes after salbutamol
  - B Immediately after salbutamol
  - C 10 minutes before salbutamol
  - D Immediately before salbutamol
  - E At any convenient time
- 57 Which ONE of the following drugs would **NOT** increase serum theophylline levels?
- A Erythromycin
  - B Omeprazole
  - C Ciprofloxacin
  - D Cimetidine

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58 Pharmacological strategies used to treat drug addiction include

- A Disulfiram to treat heroin dependence
- B Acamprosate to treat alcoholism in abstinent patients
- C Benzodiazepine to treat the depression apparent during withdrawal
- D Opioid antagonists such as methadone to treat opioid dependence

59 Rachel, a female customer, has a prescription for aciclovir for shingles (which started 2 days ago). She is uncertain about filling it due to the cost.

Based on the known effectiveness for herpes zoster, which ONE of the following should the pharmacist discuss with Rachel?

Aciclovir:

- A Will not be effective because more than 24 hours has passed
- B Will prevent acute herpes zoster-related pain
- C Needs to be taken 3 times a day for 7 days
- D Reduces acute pain and progression of the rash
- E Usually controls the pain without the need for analgesics

60 Which one of the following combinations of drugs has been shown to prolong the QT interval?

- A Loratadine and roxithromycin
- B Promethazine and roxithromycin
- C Erythromycin and haloperidol
- D Fexofenadine and doxycycline
- E Cetirizine and doxycycline

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- 61 Which ONE of the following suggested doses would **NOT** be appropriate for an adult?
- A Frusemide 80 mg bd
  - B Perindopril 24 mg daily
  - C Simvastatin 40 mg night
  - D Doxepin 75 mg nocte
- 62 A solution with a concentration of 0.05 per cent may also be described as containing
- A 1 part in 100 parts
  - B 1 part in 200 parts
  - C 1 part in 500 parts
  - D 1 part in 2000 parts
  - E 1 part in 5000 parts
- 63 Which of the following statements is **NOT** true? Aspirin
- A May interact with coumarin anticoagulants
  - B May interact with oral hypoglycaemic agents
  - C Can stimulate respiration
  - D May interact with monoamine oxidase inhibitors
  - E May induce asthma

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- 64 Following initial successful use of aerosol bronchodilators, a subsequent increase in requirement may be due to any of the following **EXCEPT**:
- A Worsening of asthma
  - B Upper respiratory tract infection
  - C Resistance to the smooth muscle relaxant effects of the bronchodilator
  - D Incorrect technique in administering the aerosol
  - E Recent contact with allergens
- 65 How much of a 10% injection of a drug is required to make 100 mL of a mixture containing 7.5 mg in 2.5 mL?
- A 0.03 mL
  - B 0.3 mL
  - C 3 mL
  - D 5 mL
  - E 30 mL
- 66 The **MOST** common adverse effect of raloxifene is
- A Irregular uterine bleeding
  - B Rash and allergic reactions
  - C Leg cramps
  - D Nausea and gastrointestinal upset
  - E Breast tenderness

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- 67 A common side effect of minocycline is
- A Inhibition of salivary secretion
  - B Giddiness
  - C Bradycardia
  - D Rhinitis
  - E Ataxia
- 68 Which ONE of the following is a recommended treatment option for severe pain due to acute herpes zoster?
- A Topical steroids
  - B Transcutaneous electrical nerve stimulation (TENS)
  - C Topical capsaicin
  - D Parenteral opioid
- 69 Which of the following statements is NOT true regarding the management of drug therapy in the elderly?
- A Prochlorperazine rarely improves dizziness but instead often produces gait disorders
  - B Anticholinergic agents should generally be avoided
  - C Tricyclic antidepressive agents should not be prescribed as nocturnal sedatives unless associated with depressive illness
  - D Allopurinol is the drug of choice in acute gout
  - E Ranitidine is a safer alternative to cimetidine for dyspepsia



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70 Which ONE of the following drugs does **NOT** have a place in the acute treatment of migraine?

- A Dihydroergotamine
- B Methysergide
- C Zolmitriptan
- D Sumatriptan
- E Aspirin

71 A patient receiving tranylcypromine should avoid:

- A Tomatoes
- B White bread
- C Cheese
- D Milk
- E Fresh fruit

72 Which ONE of the following drugs is used to treat vertigo?

- A Haloperidol
- B Metoclopramide
- C Prochlorperazine
- D Selegiline
- E Carbamazepine

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- 73 Drug-induced agranulocytosis refers to
- A A reduction in the level of circulating polymorphonuclear leukocytes
  - B A reduction in the level of circulating lymphocytes
  - C Increased levels of circulating non-functional leukocytes
  - D Total suppression of bone marrow activity
  - E Increased levels of circulating erythrocytes
- 74 All of the following agents represent an approved OTC treatment for acne vulgaris **EXCEPT:**
- A Salicylic acid
  - B Sulfur
  - C Resorcinol and sulfur
  - D Hydrocortisone
  - E Benzoyl peroxide
- 75 Which ONE of the following drugs may be administered to a patient with a known sulfonamide allergy?
- A Cotrimoxazole
  - B Sulphacetamide
  - C Sulphasalazine
  - D Celecoxib
  - E Ciprofloxacin

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- 76 A woman has a prescription for 32 mmol/day KCl orally. The pharmacy has 600 mg KCl controlled-release tablets. How many tablets does she need to take each day to provide this dose?

[Mol Wt KCl: 74.5]

- A Two tablets
- B Three tablets
- C Four tablets
- D Five tablets
- E Six tablets
- 77 The normal sublingual dose of glyceryl trinitrate is within the range of:
- A 10 - 50  $\mu$ g
- B 0.5 - 1 mg
- C 5 - 10 mg
- D 10 - 50 mg
- E 50 - 100 mg
- 78 After surgery, (radical thyroidectomy), what dose of thyroxine would you recommend therapy be initiated on?
- A 150 microgram daily
- B 25 milligram daily
- C 25 microgram daily
- D None
- E 50 milligram daily

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- 79 Norethisterone is used to treat a variety of conditions. Which of the following doses is INCORRECT?
- A Treatment of endometriosis; 5-10 mg for 4 to 6 months
  - B Contraception; 350 mcg daily
  - C Hormone replacement therapy; orally 1.25 mg for 10 to 14 days for each cycle with daily oestrogen
  - D Hormone replacement therapy; orally 1.25 mg daily with continuous oestrogen
- 80 At what age should an infant be immunised against measles?
- A 1 year old
  - B 2 years old
  - C 3 years old
  - D 4 years old
  - E 5 years old
- 81 A patient stabilised on lithium has been diagnosed with mild hypertension. Non-drug intervention has been recommended.
- Which ONE of the following may cause an elevation of lithium plasma levels with a resultant risk of toxicity?
- A Moderate exercise
  - B Salt-intake reduction
  - C Smoking cessation
  - D Weight loss
  - E High fibre diet

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- 82 A patient who presents while on cephalosporins with fever, malaise and blistering of the skin is likely to have:
- A Anaphylaxis reaction
  - B Serum sickness reaction
  - C Type 1 hypersensitivity reaction
  - D Stevens-Johnson syndrome
- 83 A pharmacist is required to produce a litre of a sodium chloride solution of such a strength that when 20 mL is diluted to 100mL with water, the resulting concentration will be 0.9% w/v. The only available sodium chloride is in the form of tablets each containing 2.25 g. The number of tablets required is
- A 45
  - B 20
  - C 9
  - D 4.5
  - E 2
- 84 Which ONE of the following antimicrobials is considered safe in pregnant women?
- A Parenteral tobramycin
  - B Tetracycline
  - C Ciprofloxacin
  - D Nitrofurantoin
  - E Sulphamethoxazole/trimethoprim

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- 85 A thiazide diuretic can
- A Enhance the effect of lithium
  - B Antagonise the action of methyldopa
  - C Antagonise the action of digitalis drugs
  - D Enhance the action of oral hypoglycaemics
  - E Antagonise the action of tricyclic antidepressants
- 86 Absorption of a bile acid-binding resin:
- A Is increased by food
  - B Is decreased by food
  - C Occurs primarily in the small intestine
  - D Does not occur; the drug is not absorbed
- 87 Which of the following effects are **LEAST** likely to occur with L-DOPA?
- A Hypertension, nausea, cerebellar effects
  - B Nausea, delusions, dyskinesia
  - C Dyskinesia, drowsiness, on-off phenomenon
  - D Hypotension, depression, anorexia

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88 Which ONE of the following drugs may be used intravenously to treat closed angle glaucoma?

- A Atropine
- B Pilocarpine
- C Guanethidine
- D Mannitol
- E Latanoprost

89 Sulfonamides are antagonised by:

- A Streptomycin
- B Benzylpenicillin
- C Enoxacin
- D Para-aminobenzoic acid (PABA)
- E Tetracycline

90 What advice would you give to a patient prescribed benzoyl peroxide gel for acne?

- A This medication is only to be applied to the face
- B Use only twice weekly
- C Avoid contact with the hair
- D May stain fabrics yellow
- E Continue use if excess dryness or irritation occurs

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- 91 Which type of laxative includes the agent docusate sodium?
- A Stimulant
  - B Bulk-forming
  - C Surfactant
  - D Osmotic
  - E Lubricant
- 92 What advice would you **NOT** give to a patient prescribed rifampicin capsules for long term treatment?
- A This medicine may make your urine a red-orange colour
  - B This medicine may affect tests of liver function
  - C This medicine requires regular monitoring of your blood cell counts
  - D This medicine may darken the colour of your iris
- 93 Once opened, the correct shelf life of an appropriately stored bottle of glyceryl trinitrate (GTN) 600 microgram tablets is:
- A 2 weeks
  - B 3 weeks
  - C 4 weeks
  - D 6 weeks
  - E 8 weeks



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- 94 For a weak base, according to the Henderson-Hasselbalch equation:

$$\text{pH} = \text{pK}_a + \log \frac{[\text{Base}]}{[\text{Salt}]}$$

When the  $\text{pK}_a$  of a base is equal to 9 and the ratio of the non- ionised species to the ionised species is 10:1, the pH equals

- A 8
- B 9
- C 10
- D 11
- E 12

- 95 Tricyclic antidepressants do **NOT** interfere with the antihypertensive action of:

- A Tranylcypromine
- B Methyldopa
- C Chlorothiazide
- D Clonidine
- E Debrisoquine

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**PATIENT PROFILE**

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Patient Name: Ann Slocum  
Address: 4432 Sunset Drive  
Coolangatta QLD  
Age: 53 Height: 175 cm  
Sex: Female Weight: 65 kg  
Allergies: No known allergies

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**Diagnosis**

Presenting Complaint: Primary  
1: Breast cancer  
Secondary  
1: Hypertension

Medical History:

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**Laboratory / Diagnostic Tests**

Date	Test	Reference Range
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**Medication Record**

Date	Medication	Quantity	Sig
4/12	Conjugated oestrogen 0.625 mg - 3 repeats	60	i hs
10/9	Tamoxifen 10 mg - 1 repeat	30	i bd
4/6	Metoprolol 50 mg - 3 repeats	100	i daily

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**Pharmacist's Notes**

2/10 Undergoing radiotherapy for breast cancer as hospital outpatient.

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- 96 Which ONE of the following would **NOT** be a factor in determining the therapeutic approach to Ms Slocum's breast cancer?
- A Size of the primary tumour
  - B Lymph node involvement
  - C Metastatic disease
  - D Body surface area
  - E Age of the patient
- 97 In choosing a chemotherapy regimen for Ms Slocum, the doctor should consider all of the following factors **EXCEPT**:
- A Emetic potential
  - B Efficacy
  - C Synergism
  - D Availability of controlled-release dosage forms
  - E Route of administration
- 98 Which ONE of the following diagnostic tests would be **MOST** appropriate to determine if Ms Slocum is a candidate for endocrine therapy?
- A Oestrogen receptor assay
  - B Mammogram
  - C Auxiliary lymph node punch biopsy
  - D Pregnenolone level
  - E T3 levels

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99 Ms Slocum complains about frequent hot flushes. This is associated with:

- A Uncontrolled hypertension
- B Oestrogen therapy
- C Breast cancer
- D Radiotherapy
- E Tamoxifen therapy

100 The medication prescribed for Ms Slocum on September 10 acts as:

- A An oestrogen stimulator
- B An antiestrogen
- C A progesterone inhibitor
- D A hematopoietic agent
- E A granulocyte colony stimulating factor

\*\*\* END OF PATIENT PROFILE \*\*\*

\*\*\* END OF EXAM \*\*\*

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**(KAPS)**

**Paper 2 Sample 2: Answers**

Question	Correct Answer
1	B
2	A
3	E
4	C
5	C
6	B
7	A
8	A
9	D
10	C
11	D
12	D
13	D
14	D
15	A
16	B
17	E
18	C
19	A
20	C
21	A
22	A
23	E
24	D
25	C
26	D
27	A
28	D
29	B
30	C
31	C
32	D
33	E
34	E
35	A

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36	C
37	C
38	E
39	C
40	D
41	D
42	C
43	D
44	E
45	A
46	B
47	C
48	C
49	E
50	A
51	A
52	B
53	A
54	C
55	D
56	A
57	B
58	B
59	D
60	C
61	B
62	D
63	D
64	C
65	C
66	C
67	B
68	C
69	D
70	B
71	C
72	C
73	A
74	D
75	E
76	C
77	B
78	C
79	D
80	A

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81	B
82	D
83	B
84	D
85	A
86	D
87	A
88	D
89	D
90	C
91	C
92	D
93	E
94	C
95	C
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96	D
97	D
98	A
99	E
100	B