

**FACULTY OF HEALTH SCIENCES
DEPARTMENT OF NURSING SCIENCE**



PROGRAMME : **MEDICAL AND SURGICAL NURSING SCIENCE: CRITICAL CARE NURSING (GENERAL)**

SUBJECT : **PAPER 3**
MODULE 5: PULMONOLOGY
MODULE 6: GENERAL SURGERY AND SEPSIS

CODE : MCV2057

DATE : SUPPLEMENTARY EXAMINATION JANUARY 2018

DURATION : 3 HOURS

WEIGHT : 50:50

TOTAL MARKS : 100

EXAMINER : PROF WE NEL

MODERATOR : DR T HEYNS (UP)

NUMBER OF PAGES : THIS PAPER CONSISTS OF FOUR (4) PAGES

INSTRUCTIONS : ANSWER ALL QUESTIONS.
½ MARK PER CORRECT FACT.

INSTRUCTIONS TO CANDIDATES: This examination paper remains the property of the University of Johannesburg and may not be removed from the examination room.

SUPPLEMENTARY EXAMINATION 2017

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QUESTION 1

Mr Malani, 170 cm and 70Kg is admitted to hospital with Community Associated Pneumonia (CAP). The assessment reveals the following:

- BP 150/95 mm Hg
- Pulse 110 per minute
- Respirations 35 per minute
- Temperature 39 °C
- FeV₁ low
- Wheezing
- X ray left lower lobe consolidations
- Positive culture for streptococci
- pH 7, 32
- PaO₂ 55 mm Hg
- PaCO₂ 65 mm Hg
- HCO₃ 28 mm Hg
- BE +5
- SAT 89%

1.1 With special emphasizes to decrease the workload of breathing explain the treatment and rationale that you would render to Mr Malani (not ventilated). (15)

1.2 It decides to ventilate him. Describe and give rationale how you will set the ventilator for him. (7)

***[22]**

QUESTION 2

Mr. Xhoza, 100kg and 160cm, was admitted to the ICU with **respiratory failure** due to **pancreatitis**. After his admission to the ICU a diagnosis of **ARDS** is made.

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Vital data

Blood pressure 80/50 mm Hg

Pulse 120 per minute

CVP 8 mm Hg

Temperature 38

He was ventilated and his blood gasses shows the following:

PH	7.35
PaCO ₂	60 mm Hg
PaO ₂	60mm Hg
HCO ₃	18 l/mmol
Be	-6
SAT	90 %
P/F	100
Shunting	22
Lactate	6

He is ventilated on SIMV of

FiO ₂	.6
Tidal volume	800ml/Kg
Minute volume	8 L
Rate	10
PEEP	6

- 2.1 Analyze the following blood gas, also give pathophysiology reason for the results and come to a conclusion (Give normal values). (8)
- 2.2 Explain and MOTIVATE how you would change the ventilator to try and correct his gasses. (8)

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- 2.3 Explain according to the pathophysiology of pancreatitis why Mr. Xhosa went into ARDS (10)
- 2.4 Explain the nursing actions and the rationale for each action that you will perform on him (Medical and Nursing NOT ventilation you answered it in 1.2). It is one patient with two diseases so do not contradicting your own actions eg. Then put the patient in fowlers then put him in supine. Choose the best action. (30)
- *[56]**

QUESTION 3

Mrs. Sweety is admitted with Diabetic Keto Acidosis (DKA)

- 3.1 Explain why a patient with diabetic keto acidosis (DKA) will have a massive **fluid and electrolyte** loss. (5)
- 3.2 Describe the care and give reasons for the care you will render to Mrs Sweety to correct her **fluid and electrolyte imbalance** the first 24 hours of admission. (12)
- 3.3 Explain why it is not good practice to decrease the blood glucose levels rapidly. (5)
- *[22]**

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