



SOLOMON ISLANDS NATIONAL UNIVERSITY
School of Nursing and Allied Health Sciences
Bachelor of Nursing: Child Health

CH 721 – Hospital Care

FINAL EXAMINATION

Semester 1, 2017

(End of semester 2 for BNCH Intake 1 and 2)



**SOLOMON ISLANDS NATIONAL UNIVERSITY
SCHOOL OF NURSING & ALLIED HEALTH SCIENCES
Bachelor of Nursing: Child Health**

CH 721 – Hospital Care

Semester 1 (end of semester 2 for BNCH Intake 1 and 2), 2017 FINAL EXAMINATION

TIME ALLOWED : THREE (3) HOURS

DATE : 06th of June 2017

STARTING TIME : 09h00 AM

STUDENT NAME : _____

STUDENT ID : _____

TEST INSTRUCTIONS:

1. Do not open this paper until told to do so.
2. Read instructions carefully when attempting the questions.
3. Write your answers **clearly** in the spaces provided.
4. Do **not** use **red biro** or **pencil** to write your answers.
5. Raise your hand quietly if you want to ask a question.
6. If you finish before time, leave your paper on your desk and leave the room quietly.

Section	Marks Allocated
Section A: Multiple Choice Questions	/ 39 Marks
Section B: Clinical scenarios and Short Answer Questions	/ 83 Marks
Total Marks	/ 122 Marks

Best of luck

Circle the letter of the most correct answer

Pocket book chapter 1-2 : ETAT

- 1) Which one (1) of the following is NOT an emergency sign? (1 mark)**
- a. Obstructed breathing
 - b. Central cyanosis
 - c. Coma
 - d. Fever
- 2) Central cyanosis is best checked at the: (1 mark)**
- a. Feet
 - b. Abdomen near the umbilicus
 - c. Conjunctivae
 - d. Tongue and inside the mouth
- 3) Shock is defined as: (1 mark)**
- a. Central capillary refill time >5 seconds
 - b. Delayed skin pinch test
 - c. Capillary refill time >3 seconds AND fast and weak pulse AND cool peripheries
 - d. Fever and weakness
- 4) A child in shock with severe acute malnutrition should receive: (1 mark)**
- a. 15 ml/kg of fluid over 1 hour
 - b. 20 ml/kg of fluid as fast as possible
 - c. 100 ml of fluid over 2 hours
 - d. 200 ml of fluid over 2 hours
- 5) A child with blood sugar of 1.2mmol/L and fitting should receive: (1 mark)**
- a. 5ml/kg of 10% dextrose
 - b. 5ml/kg of 50% dextrose
 - c. 5ml/kg of 5% dextrose
 - d. Fruit juice
- 6) A 10 year old child who is not breathing and has no pulse should be resuscitated with: (1 mark)**
- a. 3 chest compressions to 1 breath
 - b. 3 chest compressions to 2 breaths
 - c. 15 chest compressions to 2 breaths
 - d. 30 chest compressions to 1 breath

7) AVPU is used to assess for coma. The 'P' stands for: (1 mark)

- a. Pupils
- b. Paediatric
- c. Responds to Pain
- d. Pressure

8) While triaging a child, the most important step is: (1 mark)

- a. Check for and treat emergency signs
- b. Check for and treat priority signs
- c. Take a history
- d. List and consider differential diagnoses

Pocket book chapter 3: Neonates and young infants

9) In a baby born crying and healthy, you would: (1 mark)

- a. Cut the cord immediately
- b. Keep the baby away from the mother for observation
- c. Keep the baby undressed to monitor chest movements
- d. Dry immediately, start early skin to skin and breastfeeding. Delay cord clamping to after 1 minute

10) In neonatal resuscitation, if the baby is still not breathing after drying and stimulating, you would: (1 mark)

- a. Check the heart rate
- b. Open the airway, clear any visible obstruction and start bag-mask ventilation
- c. Continue to stimulate
- d. Start chest compressions

11) In bag-mask ventilation of a non-breathing newborn, you would use a rate of: (1 mark)

- a. 20 breaths per minute
- b. 10 breaths per minute
- c. 40 breaths per minute
- d. 90 breaths per minute

12) Which one (1) of the following will NOT reduce neonatal infections? (1 mark)

- a. Separating the mother from the baby
- b. Hand washing
- c. Clean cord care
- d. Clean hygiene during delivery

13) Which of the following is a risk factor for neonatal sepsis? (1 mark)

- a. First baby
- b. Fifth baby
- c. Rupture of membranes greater than 18 hours before delivery
- d. Large baby

14) Severe jaundice in a neonate needs to be treated with phototherapy to reduce the risk of: (1 mark)

- a. Anaemia
- b. Sepsis
- c. Kernicterus
- d. Hypoglycaemia

15) Which neonatal eye infection has the highest risk of causing blindness? (1 mark)

- a. Gonorrhoea conjunctivitis
- b. Chlamydia conjunctivitis
- c. Staphylococcal conjunctivitis
- d. Streptococcal conjunctivitis

16) Caffeine or aminophylline are used to prevent: (1 mark)

- a. Sepsis
- b. Neonatal respiratory distress
- c. Apnoea
- d. Jaundice

Pocket book chapter 4: Cough and difficulty breathing

17) Tachypnoea is: (1 mark)

- a. Fast breathing, which is defined as more than 40 breaths per minute
- b. Fast breathing, which is defined as more than 30 breaths per minute
- c. Fast hear rate
- d. Fast breathing, which is defined as more than 60 breaths per minute for neonates, more than 50 breaths per minute for 1 month – 1 year and more than 40 breaths per minute for more than 1 year

18) If a child has pneumonia, the most likely finding on listening to their chest is: (1 mark)

- a. Wheeze both sides
- b. Crackles one side with reduced air entry
- c. Crackles both sides
- d. Normal air entry

19) The most effective treatment for asthma is: (1 mark)

- a. Amoxicillin
- b. Salbutamol
- c. Suction
- d. Ceftriaxone

20) A pneumothorax is: (1 mark)

- a. A type of pneumonia
- b. Fluid on one side of the chest
- c. Air outside the lung, but within the thoracic cavity
- d. Blood outside the lung, but within the thoracic cavity

21) A 3 year old with sudden onset cough in the last 10 minutes most likely has: (1 mark)

- a. Tuberculosis
- b. Viral infection
- c. Foreign body aspiration
- d. Pneumonia

22) Children with pneumonia: (1 mark)

- a. All need intravenous antibiotics
- b. All need antibiotics. Those with mild disease can be treated with oral antibiotics
- c. All need oxygen
- d. All need intravenous fluids

23) Bronchiolitis is a viral lower respiratory tract infection that affects: (1 mark)

- a. Children 1 to 5 years old
- b. Infants, up to 12-24 months of age
- c. Teenagers
- d. Adults

24) Sometimes antibiotics are used in children with bronchiolitis because: (1 mark)

- a. They reduce the severity of illness
- b. They reduce the duration of illness
- c. It can be difficult to distinguish between bronchiolitis and pneumonia
- d. It can be difficult to distinguish between bronchiolitis and tuberculosis

Pocket book chapter 5: diarrhoea and dehydration

- 25) The best place to perform a skin pinch test for dehydration is: (1 mark)**
- a. Next to the umbilicus
 - b. On the forearm
 - c. On the lower leg
 - d. On the forehead
- 26) The best place to check for a central capillary refill time in a child is: (1 mark)**
- a. The fingers
 - b. The toes
 - c. The wrist
 - d. On the front of the chest
- 27) The best fluid to use for severe dehydration in a child with normal nutrition is: (1 mark)**
- a. Normal saline or Hartmann's solution
 - b. 5% dextrose
 - c. 10% dextrose
 - d. 50% dextrose
- 28) Children with some dehydration should be treated with: (1 mark)**
- a. IV fluids
 - b. Oral rehydration solution
 - c. Juice
 - d. Water
- 29) Zinc sulphate is given to children with diarrhoea because: (1 mark)**
- a. It reduces the severity and duration of diarrhoea
 - b. It helps with skin rash
 - c. It prolongs the severity and duration of illness
 - d. It works as an antibiotic

Pocket book chapter 7: Severe malnutrition (SAM)

30) Severe acute malnutrition is defined as: (1 mark)

- a. Weight for age < 2 standard deviations; weight for height < 2 standard deviations; Mid upper arm circumference < 13 cm
- b. Weight for age < -3 standard deviations; weight for height < -3 standard deviations; Mid upper arm circumference < 11.5 cm; oedema of both feet
- c. Not eating
- d. Shock

31) Which of the following is NOT a common complication of SAM: (1 mark)

- a. Hypoglycaemia
- b. Hypothermia
- c. Fever
- d. Hypertension

32) F75 milk has: (1 mark)

- a. 75 kilocalories per 100 mls
- b. 75 kilocalories per serve
- c. 75 kilocalories per bottle
- d. 75 kilocalories per kilogram

33) Children with severe acute malnutrition and complications should: (1 mark)

- a. All be started on IV antibiotics
- b. All be started on F75 if tolerating
- c. All be monitored for hypoglycaemia and hypothermia
- d. All receive IV fluids

34) The reason we DO NOT give multivitamin medications to children with malnutrition is: (1 mark)

- a. They do not need it
- b. It is present in F75 and F100
- c. They are toxic
- d. They are present in IV fluids

35) Children with SAM: (1 mark)

- a. Should be left alone, they need to rest
- b. Should be kept in dark rooms
- c. Should receive sensory stimulation, including play, because this will help in their recovery
- d. Should be kept away from the parents for the first few days of treatment

36) Children with SAM and dehydration who can drink should be treated with: (1 mark)

- a. Oral rehydration solution
- b. ReSoMal or ½ strength oral rehydration solution with additives
- c. IV fluids
- d. Juice

Chronic Complex Conditions, including Disability

37) What is the common site for a Group A streptococcal infection? (1 mark)

- a. The throat
- b. The lungs
- c. The bowel
- d. Any part of the body

38) Acute Rheumatic Fever can occur at any age but rarely in very young and the older age group. What age group is most at risk of having acute rheumatic fever? (1 mark)

- a. Children younger than 4 years
- b. Children who are 5 to 14 years of age
- c. Children who are 10 to 21 years of age
- d. Any age from birth to adulthood

39) Children with acute rheumatic fever or rheumatic heart disease should receive 4 weekly benzathine penicillin injections for a minimum of 10 years or up to 21 years of age. A child, 6 years of age with mild rheumatic heart disease will receive injections for: (1 mark)

- a. 10 years
- b. 21 years
- c. Between 10 to 21 years
- d. 15 years

SECTION B: CLINICAL SCENARIOS AND SHORT ANSWER QUESTIONS (83 MARKS)

Clinical scenario 1: neonates

(13 marks)

You are called to a delivery in the clinic. The mother is a primigravida who ruptured her membranes 20 hours ago. You have just delivered the baby (cord not clamped yet), and he is not breathing.

a) What are the first four (4) steps in managing this baby?

(4 marks)

- 1.
- 2.
- 3.
- 4.

b) The baby starts to cry and breathe but is grunting. You notice his lips are blue. What is your next step in management?

(1 mark)

c) The baby is now breathing regularly, and the cyanosis has improved. You decide to give this baby nasogastric feeds because of his tachypnoea. The baby weighs 3 kgs.

1. How much fluid does this baby need in his first 24 hours of life (in millilitres)?

(2 marks)

2. If this baby is to go on 4 hourly feeds, how much fluid does he need per feed (in millilitres)?

(1 mark)

3. A few hours later, the baby's breathing worsens. You want to stop the feeds and start the baby on full maintenance IV fluids:

(3 marks)

- Which fluid will you choose?
- How much of that fluid will you give every hour (mls/hour)?
- How many drops per minute is this using a paediatric burette with a drop factor of 60 drops / ml?

4. What other two (2) types of medication or treatment does this baby need today? **(2 marks)**
- -

Clinical scenario 2: Paediatric resuscitation / hypoglycaemia / fever (18.5 marks)

A ten (10) year old girl is brought to your clinic by her family. They have been unable to wake her for the last four (4) hours.

- a) Describe how you will triage this girl. **(2 marks)**
- b) How will you assess her conscious state? **(1 mark)**

Her airway is open and secure. She is breathing spontaneously. Her heart rate is 80 beats/min, respiratory rate is 22 breaths/min and temperature is 39.6°C. Her Blood Sugar Level (BSL) is 1.8 mmol/L. She is 25 kgs.

- c) What are five (5) of your differential diagnoses? **(3.5 marks)**
- 1.
 - 2.
 - 3.
 - 4.
 - 5.
- d) How will you treat her BSL (which fluid, how much, how fast)? **(2 marks)**
- -
 -

e) What are eight (8) history questions you would find useful for your management of this girl? **(4 marks)**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

f) What are four (4) useful investigations? **(4 marks)**

- 1.
- 2.
- 3.

g) What two (2) specific treatments does this girl require? **(2 marks)**

- 1.
- 2.

Clinical scenario 3: Paediatric resuscitation / hypoglycaemia / fever **(7 marks)**

Selvinka is a well-nourished five (5) years old girl brought to your clinic by her distressed young parents. They carry her in their arms and say that she has been asleep for many hours. You take her to your resuscitation area and assess her. Her breathing is laboured with a respiratory rate of 19 breaths/min.. She has cold peripheries and a capillary refill time of 4 seconds. Her heart rate is 141 beats/min. and her brachial pulse is weak. Your colleague has managed to calm Selvinka's parents down and they have said that she passed lots of loose watery stools over the last two (2) days. Since yesterday, she has not passed urine. Currently, she responds to pain.

a) Considering the situation, how would you initially manage Selvinka? Describe your step by step approach, in order of priority. **(6 marks)**

b) What is your primary diagnosis?

(1 mark)

Clinical scenario 4: Severe acute malnutrition

(15 marks)

You see Selin, a two (2) year old girl because her mother is worried about cough and shortness of breath. She weighs 8 kgs, with a height of 94 cm.

a) According to the graph on page 14 of this examination paper, what is her weight for age?
What does this mean?

(2 marks)

b) According to the graph on page 14 of this examination paper, what is her weight for length?
What does this mean?

(2 marks)

On further assessment, Selin has been having cough and fever for two (2) days. Today she appears more lethargic than usual. She is still drinking and is not dehydrated.

a) What are four (4) possible complications that you would like to assess?

(4 marks)

- 1.
- 2.
- 3.
- 4.

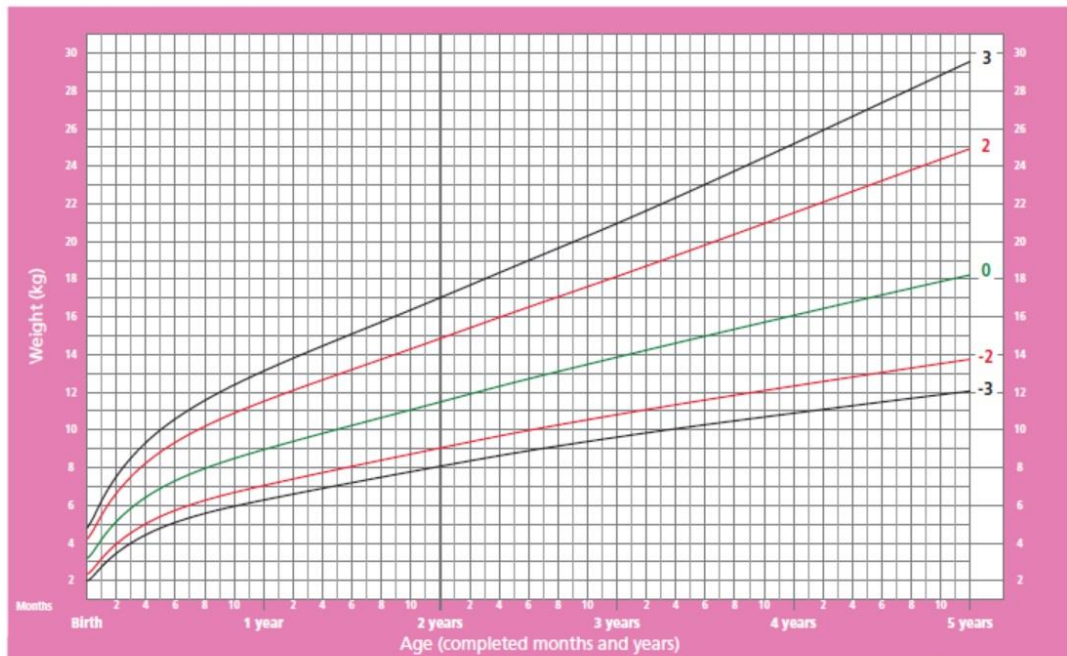
b) Describe how you will immediately manage and treat Selin?

(4 marks)

c) The mother asks you if her daughter needs to be admitted to hospital. What will you say and why?
(3 marks)

Weight-for-age GIRLS

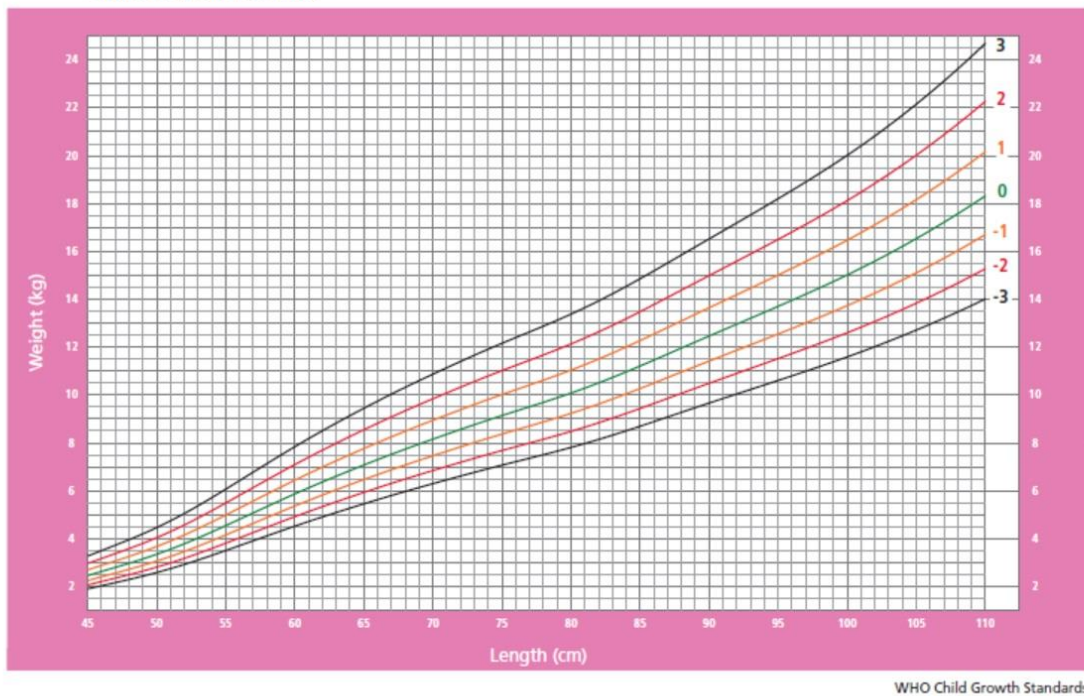
Birth to 5 years (z-scores)



WHO Child Growth Standards

Weight-for-length GIRLS

Birth to 2 years (z-scores)



Short question on Pocket book chapter 9: Trauma and Burns (5 marks)

What supportive care would you provide to a child admitted to the children's ward six (6) days ago with a full thickness burn on approximately 20% of their body surface area? (5 marks)

Short questions on Chronic Complex Conditions, including Disability (18.5 marks)

a) What are five (5) specific clinical signs of Congenital Heart Disease? (2.5 marks)

- 1.
- 2.
- 3.
- 4.
- 5.

- b) List the five (5) major manifestations of Acute Rheumatic Fever **(2.5 marks)**
- 1.
 - 2.
 - 3.
 - 4.
 - 5.
- c) What are the main differences between Diabetes type 1 and Diabetes type 2? **(2 marks)**
- d) In the glucose metabolism, what are the two (2) main hormones produced by the alpha and beta cells of the pancreas? What is their purpose? **(4 marks)**
- e) What are four (4) signs and / or symptoms of Diabetic Ketoacidosis? **(2 marks)**
- 1.
 - 2.
 - 3.
 - 4.
- f) What are five (5) signs and / or symptoms of Cerebral Palsy in children? **(2.5 marks)**
- 1.
 - 2.
 - 3.
 - 4.
 - 5.
- g) As a nurse working in a provincial clinic, what are three (3) advices you would provide to parents of a child with cerebral palsy? **(3 marks)**
- 1.
 - 2.
 - 3.

Clinical scenario 5: Asthma

(6 marks)

Young Denis presents to Accident & Emergency (A & E) with clinical signs of Asthma. After your triage, you proceed to your history taking and examination and assess the severity of the disease. How would you classify the severity of Asthma using three (3) categories? Provide one (1) specific sign or symptom for each category. **(3 marks)**

A few hours after admission to A & E, Denis is found to be in severe respiratory distress. In order of priority, what three (3) pharmacological treatments would you suggest (specify the route)? **(3 marks)**