



Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
SCHOOLS DIVISION OF TAGUIG CITY AND PATEROS
MARIA CONCEPCION CRUZ HIGH SCHOOL

Midterm Examination
Health Optimizing Physical Education 4

Name: _____ Date: _____

Grade & Section: _____ Score: _____

Direction: Read and understand each statement or question carefully. Shade the circle that corresponds to the best answer.

- Ⓐ Ⓑ Ⓒ Ⓓ 1. A group of Grade 12 students at MCCHS is planning an "Eco-Walk" along the narrow heritage alleys of Pateros. How is this activity classified in the context of recreation?
- A. Active recreation
B. Indoor recreation
C. Passive recreation
D. Technical recreation
- Ⓐ Ⓑ Ⓒ Ⓓ 2. During a field trip, MCCHS students are tasked with identifying activities that utilize the physical properties of water for fitness. Which of the following is an aquatic recreational activity?
- A. Hiking
B. Kayaking
C. Orienteering
D. Trekking
- Ⓐ Ⓑ Ⓒ Ⓓ 3. In Physics class, students learned that water provides 12 times the resistance of air. How does this scientific fact benefit an MCCHS athlete practicing "Aqua Jogging" for injury recovery?
- A. It makes the workout shorter.
B. It increases the impact on the joints.
C. It allows for high-intensity cardio with low joint stress.
D. It prevents the student from reaching their target heart rate.
- Ⓐ Ⓑ Ⓒ Ⓓ 4. The diagram below shows the "Leave No Trace" (LNT) Framework used by the MCCHS Outdoors Club to preserve natural sites. A student from Pateros brings home a unique rock from a riverbank in Rizal as a souvenir. Which LNT principle did the student violate?



Figure 1 Google. (2026). Image generated by Gemini [AI-generated image]. <https://gemini.google.com>

- A. Dispose of waste properly.
B. Leave what you find.
C. Plan ahead and prepare.
D. Respect wildlife.
- Ⓐ Ⓑ Ⓒ Ⓓ 5. A student is comparing two types of recreation: a competitive swimming race at a local sports complex and

a recreational snorkeling trip. What is the primary focus of the latter?

- A. Breaking a time record.
- B. Developing Olympic form.
- C. Mastery of advanced strokes.
- D. Relaxation and environmental appreciation.

Ⓐ Ⓑ Ⓒ Ⓓ 6. Considering the urban geography of Pateros, an MCCHS student identifies that most local recreational spaces are paved. If the student seeks "Green Exercise," which location is most appropriate?

- A. A local internet café.
- B. A crowded shopping mall.
- C. A park with trees and open trails.
- D. An indoor gymnasium with no windows.

Ⓐ Ⓑ Ⓒ Ⓓ 7. A STEM student is analyzing the "Energy Systems" used during a 4-hour hike up a mountain. Which metabolic pathway is primarily responsible for sustaining this long-duration activity?

- A. Aerobic System
- B. ATP-CP System
- C. Glycolytic System
- D. Lactic Acid System

Ⓐ Ⓑ Ⓒ Ⓓ 8. Before an aquatic activity, an MCCHS teacher demonstrates "Sculling." What is the main mechanical purpose of this specific water movement?

- A. To dive deep.
- B. To swim at high speeds.
- C. To keep the head above water.
- D. To hold one's breath for 5 minutes.

Ⓐ Ⓑ Ⓒ Ⓓ 9. Refer to the table below showing the fitness profiles of four MCCHS Grade 12 students.

Student	BMI	3-Min Step Test (Heart Rate)	Sit & Reach (cm)
A	22.0 (Normal)	145 (Average)	15 (Poor)
B	27.5 (Overweight)	160 (Below Average)	30 (Good)

Based on the table, what specific fitness component does Student A need to improve?

- A. Agility
- B. Body Composition
- C. Cardiovascular Endurance
- D. Flexibility

Ⓐ Ⓑ Ⓒ Ⓓ 10. Maria, a student living in Pateros, finds it difficult to jog because the streets are often crowded with vehicles and pedestrians. What type of barrier to physical activity is she experiencing?

- A. Environmental barrier
- B. Internal barrier
- C. Personal barrier
- D. Social barrier

Ⓐ Ⓑ Ⓒ Ⓓ 11. A student calculates their Body Mass Index (BMI) using the $BMI = \frac{\text{weight (kg)}}{\text{height (m)}^2}$. If a student weighs 64kg

and is 1.6m tall, what is their BMI?

- A. 20.0
- B. 22.5
- C. 25.0
- D. 28.0

Ⓐ Ⓑ Ⓒ Ⓓ 12. After analyzing their daily diet, an MCCHS athlete realizes they consume 3,500 calories but only burn 2,500 through activity. What will be the biological result of this "Positive Energy Balance"?

- A. Weight gain.
- B. Weight loss.
- C. Constant weight.
- D. Muscle atrophy.

- Ⓐ Ⓑ Ⓒ Ⓓ 13. During a self-assessment, a student realizes they often choose "Passive Recreation" like mobile gaming over hiking. What is the most likely long-term health risk of this choice?
- Enhanced reaction time.
 - Increased risk of obesity.
 - Improved social interaction.
 - Better cardiovascular health.
- Ⓐ Ⓑ Ⓒ Ⓓ 14. A student experiences "Exercise-Induced Asthma" every time they join a trek. What is the best course of action based on health-related fitness assessment?
- Stop all physical activities.
 - Ignore the symptoms and continue.
 - Exercise only in high-polluted areas.
 - Consult a doctor and modify the activity.
- Ⓐ Ⓑ Ⓒ Ⓓ 15. When evaluating a diet plan for a week-long camping trip, why should an MCCHS student prioritize complex carbohydrates over simple sugars?
- To cause rapid spikes in insulin.
 - To reduce the total weight of the food pack.
 - To provide sustained energy release during long hikes.
 - To ensure the food tastes better during cold nights.
- Ⓐ Ⓑ Ⓒ Ⓓ 16. A student finds that they lose motivation to exercise because they find it boring. What is the best strategy to overcome this barrier?
- Exercise alone.
 - Increase the intensity.
 - Join a recreational club.
 - Set much harder goals.
- Ⓐ Ⓑ Ⓒ Ⓓ 17. The chart below illustrates the "Target Heart Rate Zone" based on age. An MCCHS student is 18 years old. If the student wants to increase the "Intensity" of their swimming routine to reach the Aerobic Zone, what should their pulse be?

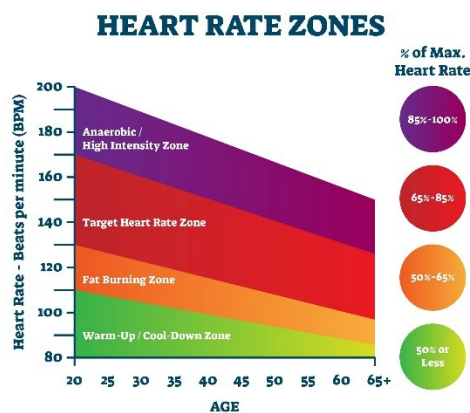


Figure 2 American Heart Association (AHA) - Target Heart Rate Guidelines. Calculation based on the Fox and Haskell Formula. Visual adapted from the DepEd Physical Education and Health Learner's Manual.

- 60–80 bpm
 - 100–120 bpm
 - 140–170 bpm
 - 190–210 bpm
- Ⓐ Ⓑ Ⓒ Ⓓ 18. Which training principle states that the body must be worked harder than normal to improve?
- Overload
 - Progression
 - Reversibility
 - Specificity

Ⓐ Ⓑ Ⓒ Ⓓ 19. An MCCHS student plans to hike three times a week. This represents which part of the FITT principle?

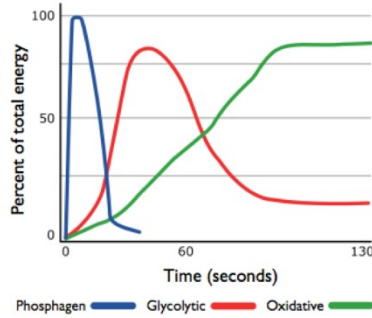


Figure 3 Gastin, P. B. (2001). Energy System Interplay during Intense Exercise. Modified for educational use in accordance with the K-12 HOPE 4 Curriculum (Recreational Activities).

- A. Frequency
- B. Intensity
- C. Time
- D. Type

Ⓐ Ⓑ Ⓒ Ⓓ 20. How can a student apply the principle of "Progression" to their camping preparation?

- A. Only hike the same hill every day.
- B. Buy the most expensive shoes available.
- C. Gradually increase the weight of their pack.
- D. Skip warm-ups to save time for the main climb.

Ⓐ Ⓑ Ⓒ Ⓓ 21. What is the most appropriate "Time" duration for a moderate-intensity brisk walk for health benefits?

- A. 5 minutes.
- B. 10 minutes.
- C. 30 minutes.
- D. 120 minutes.

Ⓐ Ⓑ Ⓒ Ⓓ 22. Which of the following is a "Type" of activity specifically designed for flexibility?

- A. Cycling
- B. Jogging
- C. Push-ups
- D. Yoga

Ⓐ Ⓑ Ⓒ Ⓓ 23. If a hiker stops training for a month and loses their stamina, which principle is being demonstrated?

- A. Overload
- B. Progression
- C. Reversibility
- D. Specificity

Ⓐ Ⓑ Ⓒ Ⓓ 24. A student wants to improve their snorkeling time. Which FITT-based goal is most specific?

- A. I will swim more often.
- B. I will try to hold my breath longer.
- C. I will swim laps for 30 minutes twice a week.
- D. I will go to the beach and practice every single day.

Ⓐ Ⓑ Ⓒ Ⓓ 25. According to health guidelines, how many minutes of MVPA should a teenager aim for daily?

- A. 15 minutes.
- B. 30 minutes.
- C. 60 minutes.
- D. 90 minutes.

- Ⓐ Ⓑ Ⓒ Ⓓ 26. Review the MET (Metabolic Equivalent of Task) table below used in your HOPE class. Which of the following activities is generally classified as "Vigorous" intensity?

Activity	MET Value	Intensity
Brisk Walking	4.0	Moderate
Competitive Soccer	10.0	Vigorous

- A. Casual walking.
B. Light gardening.
C. Slow bicycling.
D. Competitive soccer.
- Ⓐ Ⓑ Ⓒ Ⓓ 27. How can you tell if an activity has reached "Moderate" intensity using the Talk Test?
A. You can sing a song.
B. You can talk but not sing.
C. You cannot say more than a few words.
D. You are unable to speak due to shortness of breath.
- Ⓐ Ⓑ Ⓒ Ⓓ 28. Which physiological indicator is most reliable for monitoring effort during a hike?
A. Body weight.
B. Heart rate.
C. Skin color.
D. Sweat rate.
- Ⓐ Ⓑ Ⓒ Ⓓ 29. Why is consistent engagement in MVPA important for Grade 12 students?
A. To pass PE class only.
B. To reduce the risk of lifestyle diseases.
C. To prepare for a professional sports career.
D. To eliminate the need for a healthy diet.
- Ⓐ Ⓑ Ⓒ Ⓓ 30. A student feels their heart beating rapidly and is breathing deeply while kayaking. What does this indicate?
A. They are overexerting.
B. They are in the aerobic zone.
C. They are having a heart attack.
D. They are not working hard enough.
- Ⓐ Ⓑ Ⓒ Ⓓ 31. Which of the following is a "Moderate" intensity recreational activity?
A. Sprinting.
B. Powerlifting.
C. Leisurely cycling.
D. Fast mountain climbing.
- Ⓐ Ⓑ Ⓒ Ⓓ 32. What is the best way to track if you are meeting the 60-minute daily MVPA requirement?
A. Guessing the time.
B. Using a fitness app.
C. Asking a friend to watch.
D. Checking how tired you feel.

For 33-36

A group of MCCHS students is hiking during a very hot afternoon. One student, Rafael, starts feeling dizzy, has a headache, and his skin feels dry and hot to the touch. He has stopped sweating.

- Ⓐ Ⓑ Ⓒ Ⓓ 33. Based on the symptoms described, what condition is Rafael likely experiencing?
A. Dehydration
B. Heat stroke
C. Hypothermia
D. Overexertion

- Ⓐ Ⓑ Ⓒ Ⓓ 34. What is the immediate first-aid action the group should take for Rafael?
- Force him to run down the hill.
 - Move him to a cool, shaded area.
 - Cover him with thick blankets.
 - Give him a heavy meal to eat.
- Ⓐ Ⓑ Ⓒ Ⓓ 35. How could this situation have been prevented?
- Wearing dark, heavy clothing.
 - Drinking water only when thirsty.
 - Hiking during the hottest part of the day.
 - Taking frequent breaks in shaded areas.
- Ⓐ Ⓑ Ⓒ Ⓓ 36. If Rafael had been shivering uncontrollably and feeling numb instead, what would he be suffering from?
- Heat cramps
 - Heat exhaustion
 - Hyperthermia
 - Hypothermia
- Ⓐ Ⓑ Ⓒ Ⓓ 37. The visual below compares different levels of dehydration by urine color. If a student notices their urine is dark yellow/amber during a kayak trip, what is the biological indication?

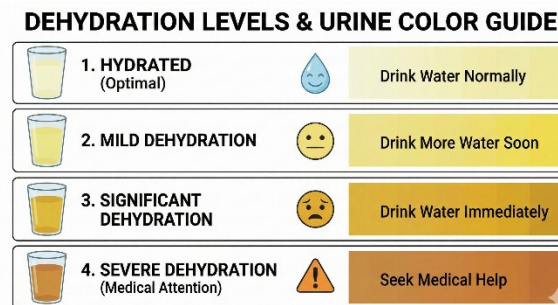


Figure 3 Armstrong, L. E. (2000). Hydration Assessment Chart. Adapted from the Armstrong Laboratory for Environmental Science and the DepEd Health-Optimizing Physical Education (HOPE) Safety Protocols.

- The student is perfectly hydrated.
 - The student is significantly dehydrated.
 - The student has consumed too much water.
 - The student has a high level of vitamin C.
- Ⓐ Ⓑ Ⓒ Ⓓ 38. Which of the following is a sign of overexertion?
- Normal pulse.
 - Light sweating.
 - Excessive fatigue.
 - Improved focus.
- Ⓐ Ⓑ Ⓒ Ⓓ 39. What should you do if you feel a cramp while swimming in deep water?
- Panic and splash.
 - Try to swim faster.
 - Scream for help immediately.
 - Float on your back and stretch the muscle.
- Ⓐ Ⓑ Ⓒ Ⓓ 40. Why is a "Cool Down" period necessary after a vigorous recreational activity?
- To increase heart rate.
 - To prevent blood pooling.
 - To build muscle mass quickly.
 - To make the workout feel longer.
- Ⓐ Ⓑ Ⓒ Ⓓ 41. Which safety protocol is most important when snorkeling in unfamiliar waters?
- Use a buddy system.
 - Swim as far as possible.
 - Touch the coral for balance.
 - Wear the tightest mask possible.

- Ⓐ Ⓑ Ⓒ Ⓓ 42. What is the purpose of checking the weather forecast before a mountaineering trip?
- A. To pick the best outfit.
 - B. To identify potential hazards.
 - C. To ensure the trip is expensive.
 - D. To find the most crowded trails.
- Ⓐ Ⓑ Ⓒ Ⓓ 43. What is the proper etiquette when using a public swimming pool in Pateros?
- A. Diving in without checking depth.
 - B. Showering before entering the water.
 - C. Leaving your trash on the pool deck.
 - D. Staying in the middle of a lap lane.
- Ⓐ Ⓑ Ⓒ Ⓓ 44. If you see a piece of equipment in the MCCCHS gym is broken, what should you do?
- A. Use it carefully.
 - B. Report it to the teacher.
 - C. Fix it yourself using tools.
 - D. Move it to a different corner.
- Ⓐ Ⓑ Ⓒ Ⓓ 45. Which of the following demonstrates proper etiquette on a hiking trail?
- A. Playing loud music.
 - B. Shouting at other hikers.
 - C. Yielding to hikers going uphill.
 - D. Cutting corners to reach the top.
- Ⓐ Ⓑ Ⓒ Ⓓ 46. Why should you always wear a life jacket when kayaking, even if you are a good swimmer?
- A. It is a fashion requirement.
 - B. It makes you swim much faster.
 - C. It provides buoyancy in case of accidents.
 - D. It keeps your clothes from getting soaked.
- Ⓐ Ⓑ Ⓒ Ⓓ 47. What is the correct way to store camping gear after an MCCCHS field trip?
- A. Throw it in the closet wet.
 - B. Clean and dry it thoroughly.
 - C. Leave it in the car for next time.
 - D. Wash it with very strong chemicals.
- Ⓐ Ⓑ Ⓒ Ⓓ 48. When using shared sports facilities, "Etiquette" primarily refers to _____.
- A. Being the loudest person.
 - B. Winning every game played.
 - C. Using the best gear available.
 - D. Showing respect to others and the space.
- Ⓐ Ⓑ Ⓒ Ⓓ 49. Which behavior is considered "Unsafe" in a gym setting?
- A. Bringing a towel.
 - B. Wearing rubber shoes.
 - C. Leaving weights on the floor.
 - D. Wiping down the equipment.
- Ⓐ Ⓑ Ⓒ Ⓓ 50. What should a student do if they are unsure how to use a specific piece of aquatic equipment?
- A. Ask for a demonstration.
 - B. Watch others from a distance.
 - C. Guess how it works and try it.
 - D. Avoid using the equipment entirely.

Prepared by:

ANTON JAMES M. VILLACACAN
Subject Teacher

Checked by:

MIRIAM C. MABASA
Head Teacher I

Verified:

RELIBETH A. FORONDA
Principal I

Noted by:

RYAND G. SABALLE
PSDS, Cluster 10