

TEENAG GRAND FINAL EXAM



➤ **TEAM NAME:**

Time to complete: 50 Minutes.

*There are **four** sections with questions on the back of the page. Total **70** marks.*

Total

/70

Section One – Breeding (5 min): -6 marks

In front of you are three bull profiles.

Which bull would you chose to mate to which cow (ignoring Breed):

1. Cow 1: To improve her udder.
2. Cow 2: To improve her capacity.
3. Cow 3: To improve her fat & protein components.



Telford
Te Whare Wānaka o Puerua
A Division of Lincoln University

TEENAG GRAND FINAL EXAM



Section Two – General Knowledge (25 min): -30 marks

1. What is the % of Nitrogen in Urea?
2. The Cheese produced from goat's milk is called?
3. What does the Brix test measure?
4. What American city is home to the Wall Street Stock exchange?
5. What is the minimum hourly adult wage in New Zealand?
6. What is New Zealand's highest mountain?
7. What is the technical name for a beekeeper?
8. Who is the CEO of Fonterra?
9. What is a male donkey called?
10. What is the Roman Numeral for 50?
11. What is the capital of Australia?



TEENAG GRAND FINAL EXAM



12. How many corners does a cube have?
13. With cattle genetics, What does “BV” stand for?
14. What type of wine is Central Otago renowned for?
15. Border-dyke and Spray are types of what?
16. With relation to deer, what is a spiker?
17. With regard to feeding animals, what does the abbreviation ME stand for?
18. What is dendrology the study of?
19. What does OCR stand for?
20. What does the acronym NAIT stand for?
21. What is the speed limit when passing a stationary school bus?
22. Herringbone and Rotary are types of what?



TEENAG GRAND FINAL EXAM



23. What are trees that shed their leaves in winter called?
24. In First Aid, what does the acronym R.I.C.E stand for?
25. What is the New Zealand Christmas Tree more commonly known as?
26. The endophyte AR37 is associated with what grass type?
27. Milkfever in dairy cows is caused by a deficiency in what?
28. What does “VM” stand for on a wool details sheet?
29. What was the first capital of New Zealand?
30. What milk product must newborn calves receive within 6 hours of birth?



TEENAG GRAND FINAL EXAM



Section 3 – Financial (10 mins) - 20 marks

You have a 250ha dairy & drystock property. The milking platform is 150ha, carrying 450 cows, and producing 350kgMS/cow.

The rest of the property is drystock and purchases store lambs and bull beef, which are finished then sold to the local works. Each year 1,000 lambs and 250 beef cattle are traded.

This year the payout is \$6.00kgMS. Each lamb traded has a margin of \$60, and each beef animal has a margin of \$400.

On the dairy farm, Farm Working Expenses (FEW) are \$3.20kgMS. The drystock property has running expenses of \$450/ha.

The whole business has \$3,000,000 of debt, with an average interest rate of 6.5% pa.

Assuming no Drawings, Tax or Capital Expenditure, calculate the following:

- The Gross Farming Income (working on margins) for the Dairy and Drystock Property (as a Total and per Ha), for the full 12 months**

<i>Dairy Farm:</i>	<i>Total \$</i>	<i>(1pt)</i>
	<i>Per Ha</i>	<i>(1pt)</i>
<i>Drystock:</i>	<i>Total \$</i>	<i>(2pts)</i>
	<i>Per Ha</i>	<i>(1pt)</i>

- A consolidated Gross Farming Income for the whole business (as a Total and per Ha) for the full 12 months**

<i>Total \$</i>	<i>(1pt)</i>
<i>Per Ha</i>	<i>(1pt)</i>

- A consolidated Net Profit figure for the entire operation (as a Total and per Ha) for the full 12 months**

	<i>Total \$</i>	<i>Per Ha</i>	
<i>Gross Farming Income</i>	<i>(1pt)</i>	<i>(1pt)</i>	
<i>Less operative expenses</i>	<i>(2pt)</i>	<i>(2pts)</i>	
<i>Equals Operating profit before taxes and interest</i>	<i>(1pt)</i>	<i>(1pt)</i>	
<i>Less interest and taxes</i>	<i>(1pt)</i>	<i>(1pt)</i>	<i>(195,000 / 250Ha)</i>
<i>Net profit</i>	<i>(1pt)</i>	<i>(2pts)</i>	

*Dairy = \$504,000 (157,500kgMS x \$3.20 FWE) plus Drystock = \$45,000 (\$450 x 100Ha)

**Dairy = \$3,360 (504,000 / 150 Ha) plus Drystock = \$450 (stated)



TEENAG GRAND FINAL EXAM



Section 4 – True/False (10 mins) - 14 marks

(Circle correct answer)

1. Ears are important when it comes to balance **true / false**
2. Your Kelvin is a measure of temperature **true / false**
3. Atoms are most stable when their outer shells are full **true / false**
4. Owls can turn their heads completely backwards, allowing a 360 degree view **true / false**
5. You lose most of your body heat through your head **true / false**
6. A snail can sleep for three years. **true / false**
7. Almonds are a member of the peach family **true / false**
8. An ostrich's eye is bigger than its brain. **true / false**
9. Peanuts are one of the ingredients of dynamite **true / false**
10. Rubber bands last longer when refrigerated. **true / false**
11. There are more chickens than people in the world. **true / false**
12. Bats are blind. **true / false**
13. Salt water boils faster than Fresh water **true / false**
14. Tigers have striped skin. **true / false**
15. In 2002 New Zealand had five times more sheep than people? **true / false**
16. Donald Duck is an only child. **true / false**
17. Rat is not a year in the Chinese calendar. **true / false**
18. Leonardo da Vinci painted eyebrows on the Mona Lisa painting. **true / false**
19. It is easier to balance with your eyes closed than with your fingers in your ears. **true / false**
20. Cockroaches can live a week without a head. **true / false**
21. Surfers call people “goofy” if they put their left foot in front on the surf Board **true / false**
22. Mars has a higher mountain than Earth. **true / false**
23. Clinophobia is fear of beds. **true / false**
24. The longest recorded flight of a chicken is 13 seconds. **true / false**
25. Windmills always turn clockwise. **true / false**
26. Camels have three eyelids to protect themselves from the blowing sand. **true / false**
27. A hippo can open its mouth wide enough to fit a 4 foot tall child inside. **true / false**
28. Identical twins have the same fingerprints. **true / false**



TEENAG GRAND FINAL EXAM



➤ **TEAM NAME:**

*Time to complete: 50 Minutes. There are **four** sections with questions on the back of the page.
Total 56 marks.*

Section One – Breeding (5 min): -6 marks

In front of you are three bull profiles.

Which bull would you chose to mate to which cow (ignoring Breed):

4. Cow 1: To improve her udder.

Overdive

5. Cow 2: To improve her capacity.

Shadow

6. Cow 3: To improve her fat & protein components.

Degree



Telford
Te Whare Wānaka o Puerua
A Division of Lincoln University

TEENAG GRAND FINAL EXAM



Section Two – General Knowledge (25 min): -30 marks

31. What is the % of Nitrogen in Urea?

46%

32. The Cheese produced from goat's milk is called?

Feta

33. What does the Brix test measure?

Sugar Levels in fruit

34. What is the recommended shaft speed of a 21 spline PTO?

1000 RPM

35. What is the minimum hourly adult wage in New Zealand?

\$13.50/hr

36. What is New Zealand's highest mountain?

Aorangi / Mount Cook

37. What is the technical name for a beekeeper?

Apiarist

38. Who is the CEO of Fonterra?

Theo Spierings

39. What is a male donkey called?

Jack

40. What is the Roman Numeral for 50?

"L"



Telford
Te Whare Wānaka o Puerua
A Division of Lincoln University

TEENAG GRAND FINAL EXAM



41. What is the capital of Australia?

Canberra

42. How many corners does a cube have?

Eight

43. With cattle genetics, What does “BV” stand for?

Breeding Value

44. What type of wine is Central Otago renowned for?

Pinot Noir

45. Border-dyke and Spray are types of what?

Irrigation

46. With relation to deer, what is a spiker?

Yearling Stag

47. With regard to cattle food, what does the abbreviation MJME stand for?

Megajoules of Metabolisable Energy

48. Who is the Speaker of Parliament in New Zealand?

Lockwood Smith

49. What does OCR stand for?

Official Cash Rate

50. What does the acronym NAIT stand for?

National Animal Identification and Tracing

51. What is the speed limit when passing a stationary school bus?

20km/h



Telford
Te Whare Wānaka o Puerua
A Division of Lincoln University

TEENAG GRAND FINAL EXAM



52. Herringbone and Rotary are types of what?

Cowshed

53. What are trees that shed their leaves in winter called?

Deciduous

54. In First Aid, what does the acronym R.I.C.E stand for?

Rest, Ice, Compress, Elevate

55. What is the New Zealand Christmas Tree more commonly known as?

Pohutukawa

56. The endophyte AR37 is associated with what grass type?

Ryegrass

57. Milkfever in dairy cows is caused by a deficiency in what?

Calcium

58. What does "VM" stand for on a wool details sheet?

Vegetable Matter

59. What was the first capital of New Zealand?

Russell

60. What milk product must newborn calves receive within 6 hours of birth?

Colostrum



TEENAG GRAND FINAL EXAM



Section 3 – Financial (10 mins) - 20 marks

You have a 250ha dairy & drystock property. The milking platform is 150ha, carrying 450 cows, and producing 350kgMS/cow.

The rest of the property is drystock and purchases store lambs and bull beef, which are finished then sold to the local works. Each year 1,000 lambs and 250 beef cattle are traded.

This year the payout is \$6.00kgMS. Each lamb traded has a margin of \$60, and each beef animal has a margin of \$400.

On the dairy farm, Farm Working Expenses (FEW) are \$3.20kgMS. The drystock property has running expenses of \$450/ha.

The whole business has \$3,000,000 of debt, with an average interest rate of 6.5% pa.

Assuming no Drawings, Tax or Capital Expenditure, calculate the following:

2. **The Gross Farming Income (working on margins) for the Dairy and Drystock Property (as a Total and per Ha), for the full 12 months**

Dairy Farm:	Total \$	\$945,000 (157,500kgMS x \$6 payout)	(1pt)
	Per Ha	\$6,300 (\$945,000 / 150Ha)	(1pt)
Drystock:	Total \$	\$160,000 (250 beef @ \$400 plus 1000 lambs @\$60)	(2pts)
	Per Ha	\$1,600 (160,000 / 100Ha)	(1pt)

- 4 **A consolidated Gross Farming Income for the whole business (as a Total and per Ha) for the full 12 months**

Total \$	\$1,105,000 (\$945,000 + \$160,000)	(1pt)
Per Ha	\$7,900 (6300 + 1600)	(1pt)

- 4 **A consolidated Net Profit figure for the entire operation (as a Total and per Ha) for the full 12 months**

	Total \$	Per Ha
Gross Farming Income	\$1,105,000 (1pt)	\$7,900 (1pt)
Less operative expenses	*\$549,000 (2pt)	**\$3,810 (2pts)
Equals Operating profit before taxes and interest	\$556,000 (1pt)	\$4,090 (1pt)
Less interest and taxes	\$195,000 (1pt)	\$780 (1pt)
Net profit	\$361,000 (1pt)	\$3,310 (2pts)

*Dairy = \$504,000 (157,500kgMS x \$3.20 FWE) plus Drystock = \$45,000 (\$450 x 100Ha)

**Dairy = \$3,360 (504,000 / 150 Ha) plus Drystock = \$450 (stated)



TEENAG GRAND FINAL EXAM



Section 4 – True/False (10 mins) - 14 marks

(Circle correct answer)

29. Ears are important when it comes to balance **true / false**
30. Your Kelvin is a measure of temperature **true / false**
31. Atoms are most stable when their outer shells are full **true / false**
32. Owls can turn their heads completely backwards, allowing a 360 degree view **true / false**
33. You lose most of your body heat through your head **true / false**
34. A snail can sleep for three years. **true / false**
35. Almonds are a member of the peach family **true / false**
36. An ostrich's eye is bigger than its brain. **true / false**
37. Peanuts are one of the ingredients of dynamite **true / false**
38. Rubber bands last longer when refrigerated. **true / false**
39. There are more chickens than people in the world. **true / false**
40. Bats are blind. **true / false**
41. Salt water boils faster than Fresh water **true / false**
42. Tigers have striped skin. **true / false**
43. In 2002 New Zealand had five times more sheep than people **true / false**
44. Donald Duck is an only child. **true / false**
45. Rat is not a year in the Chinese calendar. **true / false**
46. Leonardo da Vinci painted eyebrows on the Mona Lisa painting. **true / false**
47. It is easier to balance with your eyes closed than with your fingers in your ears. **true / false**
48. Cockroaches can live a week without a head. **true / false**
49. Surfers call people “goofy” if they put their left foot in front on the surf board **true / false**
50. Mars has a higher mountain than Earth. **true / false**
51. Clinophobia is fear of beds. **true / false**
52. The longest recorded flight of a chicken is 13 seconds. **true / false**
53. Windmills always turn clockwise. **true / false**
54. Camels have three eyelids to protect themselves from the blowing sand. **true / false**
55. A hippo can open its mouth wide enough to fit a 4 foot tall child inside. **true / false**
56. Identical twins have the same fingerprints. **true / false**



TEENAG GRAND FINAL EXAM

