

# **Sitting This Exam**

Scholarship and entrance exams are specifically designed to identify the very top students. For this reason, they are designed to challenge students beyond their normal level of ability. Therefore, you should expect to find numerous questions very difficult. If you do not immediately understand a question and wish to return to it, you are encouraged to flag the question. This will enable you to later easily identify it. You are advised to use a pen and paper to assist you in working through questions wherever possible. Where appropriate, students are also encouraged to use the strategies developed through Edworks Scholarship Preparation Programs.



Remember, you are given one minute for each question, so set yourself a time limit of 67 minutes. Aim to manage your time and keep an eye on your countdown clock.

### Practice Exam: LOGIC AND VERBAL REASONING

### Question 1

Using the letters that appear in each word, make a four letter word: cabinet, sincere, nickel, client

### Question 2

Circle the term that denotes the largest value:

1) three dozen, 2) decade, 3) score,

### **Question 3**

Circle the word that rhymes with 'alkali'?

1) Kelly, 2) tally, 3) deny

### **Question 4**

Circle the odd word:

1) subtract 2) product 3) numeral 4) quotient

### Question 5

Josh, Nikita, Jessica and Ben each have a favourite subject at school. Each student could choose from Maths, English, P.E. or History.

Use the following clues to find what is Ben's favourite subject:

- 1. Jessica and Nikita don't like physical activities.
- 2. Josh and Nikita prefer History and Debating.
- 3. Either Jessica or Josh enjoyed winning the last Debating competition.

### Question 6

Complete this analogy: School is to pool as liar is to \_\_\_\_\_\_.

Select One Possible Answer: 1). cheat, 2). fire, 3). tell, 4). dishonest



Question 7 What word has a similar meaning to 'zealous'. Select One Possible Answer: 1). eager, 2). envious, 3). extremist, 4). jealous
Question 8 Rearrange the following digits to make the smallest possible number: 0,7,2,8,5.
Question 9 Complete the analogy: Paediatrics is to young as is to old. Select One Possible Answer: 1). doctor, 2). geriatrics, 3). medicine, 4). historic
Question 10 Unscramble the letters 's,l,e,p,h,a,s' to make a word that means 'unfortunate'.
Question 11 Circle which word comes third alphabetically: 1). figurative, 2). figurine, 3). fighting, 4). figured
Question 12 A group of peacocks is known as a: Select One Possible Answer:1). flock, 2). gaggle, 3). pride, 4). peahens
Question 13 Which word has a similar meaning to 'novelty'? Select One Possible Answer: 1). new, 2). game, 3). livable, 4). humorous
Question 14 Unjumble the words to form a properly structured sentence: car neutral the put the motorist into
Question 15 Orange is to juicer as coffee bean is to Select One Possible Answer: 1). condensor, 2). percolator, 3). grinder, 4). espresso
Question 16 Which definition best explains the proverb, 'The early bird catches the worm'. Select One Possible Answer:  1). It is best to start as early as possible to take full advantage of a situation. 2). Being punctual is not useful, if you are a worm. 3). Birds are always the first creatures to wake in the morning.  Question 17
Complete the word in the sentence: The computer net covered the



### **Question 18**

What is the meaning of the word 'proximity' in the sentence: The proximity of the park to the lake allowed many people to visit.

Select One Possible Answer: 1). closeness, 2). volume, 3). space, 4). distance

### **Question 19**

What word does not mean the same as 'give'?

### **Select One Possible Answer:**

- 1). transfer
- 2). present
- 3). provide
- 4). capture

### Question 20

Which definition best describes the proverb, 'A stitch in time saves nine'.

### **Select One Possible Answer:**

- 1). When sewing, it is better to stitch one at a time.
- 2). If you sew nine stitches at once, it will save you time.
- 3). Both A and B.
- 4). It is better to do a task when it first arises, than wait till it becomes more of a chore.

### **Question 21**

What is closest in meaning to the word 'solitude'?

Select One Possible Answer: 1). secluded, 2). patience, 3). provide, 4). capture

## Question 22

What piece of furniture can be found in the sentence: Holidays at the cabin etched memories into her mind that would last a lifetime.

### Question 23

Which numerals complete the following sequence: XI, XVIII, \_\_\_\_\_, XXXV, XLV Select One Possible Answer: 1). IXV, 2). XXVI, 3). XIV, 4). XXIV

### **Question 24**

Which definition best describes the proverb, 'Variety is the spice of life.'

# **Select One Possible Answer:**

- 1). You need to have spices in your cooking and life.
- 2). Change and variety makes life more interesting.
- 3). If you don't have variety in your life, you won't have any spice.

### Question 25

Quintet is to five as \_\_\_\_\_\_ is to four.

- 1). quadrant,
- 2). quartz,
- 3). quartet,
- 4). quadruplet



### **Question 26**

VI is to six as XXI is to\_\_\_\_\_

Select One Possible Answer: 1). 11, 2). 21, 3). 29, 4). 19

Correct Answer: 2). 21

**Practice Exam: MATHS** 

### **Question 1**

A cyclist traveled at 20km per hour for an hour and a half. A jogger ran at 15km per hour for the first hour, then dropped back to 5km per hour for the next 3 hours. In relation to the jogger, the cyclist rode:

### **Select One Possible Answer:**

- 1). a third as far
- 2). twice as far
- 3). one and a half times further
- 4). the same distance
- 5). both 1 and 3

### **Question 2**

What is 20% of an hour, expressed in minutes?

\_\_\_\_\_

### **Question 3**

How many tenths are there in the sum of: 2.29, 1.2 and 3.4?

\_\_\_\_\_

### Question 4

Share 60 into the ratio of 6:4

### Select One Possible Answer:

- 1). 60, 40,
- 2). 36, 24,
- 3). 10, 4

# **Question 5**

To settle an argument, Andy tossed a coin 50 times. How many times would you expect him to see the tails side?

# Select One Possible Answer:

- 1). 49 times,
- 2). 36 times
- 3). 10 times
- 4). 25 times

### **Question 6**

At what temperature would you expect to see water boiling?

- 1). 99c,
- 2). 102c,
- 3). -1c,
- 4). 50c



### **Question 7**

The area of a rectangle is 64 square metres. What would a side of a square with the same area measure?

### **Select One Possible Answer:**

- 1). 14m
- 2). 8m
- 3). 32m
- 4). 16m

### **Question 8**

Which is the odd number: 42, 36, 18, 52, 54?

### **Question 9**

What is the area of the triangle in square centimeters?

40cm

### **Question 10**

What is the product of 9 and 6?

### **Select One Possible Answer:**

- 1). 54,
- 2). 15,

3). 3, 4). 1.5



## **Question 11**

Danielle had to take medicine three times a day, at 10ml doses each time. On what day would her medicine bottle be empty, if it originally contained 100ml? **Select One Possible Answer:** 1). third day, 2). fifth day, 3). fourth day, 4). second day

## Question 12

What is the quotient of 42 and 6?

## Select One Possible Answer:

- 1). 7,
- 2). 48,
- 3). 36
- 4). 252

# **Question 13**

Sam scored 28/40 on a maths test. What is his score as a percentage?

- 1). 70%,
- 2). 62%,
- 3). 75%
- 4). 56%



### **Question 14**

Write 2/5 as a decimal.

### **Select One Possible Answer:**

- 1). 0.25
- 2). 2.5
- 3). 4.0
- 4). 0.4

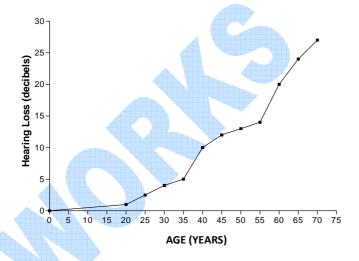
## **Question 15**

What two numbers have the sum of 18 and the product of 72?

Additional Maths: These questions contain graphs and tables. You may need to scan down below the question to view all of the Possible Answers.

# The next question refers to the following information and graph:

Sounds are measured in decibels. In hearing tests, sounds are played into a person's ears. This person's hearing is compared with what the 'average' person can hear. If a sound cannot be heard, it is said that person has a hearing loss. If a sound has to be played at 10 decibels above the average before it can be heard, then the person is said to have a hearing loss of 10 decibels. Most people suffer hearing loss as they grow older.



# CIRCLE THE CORRECT ANSWER. Question 16

During which five year period does the greatest hearing loss occur?

- A. Between 25 and 30
- C. Between 50 and 55
- B. Between 45 and 50
- D. Between 55 and 60



# The next 3 questions refer to the following information and table:

Tim was measuring the amount of time needed to move a block of wood over a number of surfaces. He measured the amount of time (in seconds) four times for each surface.

TIME (SECONDS)

Surface	Trial 1	Trial 2	Trial 3	Trial 4
Concrete	20	22	20	18
Newspaper	9	8	8	9
Vinyl tiles	4	4	3	5
Sandpaper	34	32	36	34
Grass	16	18	17	19

### CIRCLE THE CORRECT ANSWER.

### **Question 17**

What was the average amount of time (in seconds) needed to move the block of wood over the concrete surface?

A. 10s C. 15s B. 12s D. 20s

### **Question 18**

Which surface was it easiest to move the block of wood over?

A. Concrete
B. Sandpaper
C. Vinyl tiles
D. Newspaper

# **Question 19**

Which surface was it hardest to move the block of wood over?

A. Concrete

B. Sandpaper

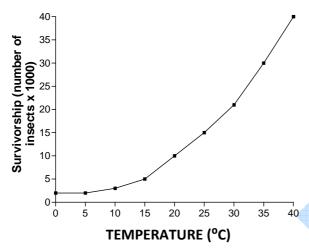
C. Vinyl tiles

D. Newspaper



# The next question is related to the following information:

A particular species of insect lives in areas with few trees and feeds on grasses. When possible this insect species also feeds on crops, and takes shelter in the few small bushes available. This species can breed under most environmental conditions and has few natural predators.



# CIRCLE THE CORRECT ANSWER.

### **Question 20**

Based on the evidence in the graph above, you would expect this insect to be found?

- A. In a very cold environment
- B. In a relatively warm environment
- C. In an environment with average temperatures 35°C or higher
- D. In a relatively cool environment

# The next 2 questions refer to the following information:

Two experiments were conducted on the influence of temperature on the movement of flies. In each experiment 100 flies were placed in a container of air which was gradually heated and then cooled. The number of flies moving at each temperature is shown in the tables below.

Experiment 1 – Temperature range 0°C to 50°C

-	Temp	0	10	20	30	35	40	45	50	45	40	35	30	20	10	1
	No.	0	8	41	64	97	84	8	0	0	0	0	0	0	0	0
٦	Moving															

Experiment 2 – Temperature range 0°C to 45°C

Temp	0	10	20	30	35	40	45	40	35	30	20	10	1
No.	0	11	37	66	98	81	14	68	71	73	21	7	0
Moving													



### CIRCLE THE CORRECT ANSWER.

### **Question 21**

It is reasonable to conclude that at the beginning of each experiment at 0°C

- A. Most flies were dead
- B. Most flies were not moving
- C. No flies were moving but they were all alive
- D. No flies were moving and a few may have been dead

### Question 22

In Experiment 2 it is reasonable to conclude that between temperatures of 40°C to 45°C most flies:

- A. Enter a coma from which none recover
- B. Enter a coma from which, later, all will recover
- C. Enter a coma from which, later, most will recover
- D. Enter a coma from which, later, only a few will recover

# The next 3 questions refer to the following information:

The effect of temperature on the rate of heartbeat of several individuals of *Daphnia* (a small freshwater crustacean approximately 2mm long) was investigated by counting the number of beats per minute at temperature intervals of 10°C. The results for four of these animals over a temperature range from 0°C to 50°C are shown in the table below.

Effect of temperature on heartbeat rate of Daphnia

DAPHNIA	TEMPERATURES(°C)									
	0 4	10	20	30	40	50				
Α	32	46	83	152	202	48				
В	31	39	50	61	65	0				
С	29	40	78	150	210	0				
D	36	39	89	42	195	58				

### CIRCLE THE CORRECT ANSWER.

## **Question 23**

Daphnia were most active at?

A. 20°C C. 40°C B. 30°C D. 50°C

# Question 24

What is the range over which the heartbeat rate varies at 20°C?

A. 6 beats per minute

B. 39 beats per minute

C. 11 beats per minute

D. 28 beats per minute



### **Question 25**

At which temperature was the greatest variation in heartbeat rate?

A. 50°C

C. 30°C

B. 40°C

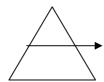
D. 20°C

# The next 2 questions refer to the following information:

The shapes below are either round or triangular, white or shaded, and with or without arrows.

In the example, Shape E is round, shaded and without arrows, while Shape F is triangular, white and with arrows.





Shape F

Shape E

# CIRCLE THE CORRECT ANSWER.

In the following questions determine how many of the shapes fit the descriptions.

### **Question 26**

If this shape is white, then it is triangular; if it is shaded then it is round or triangular

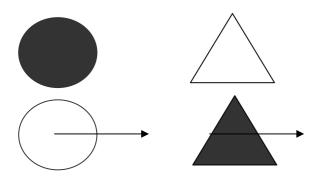


A. 4 B. 3. C. 2



### **Question 27**

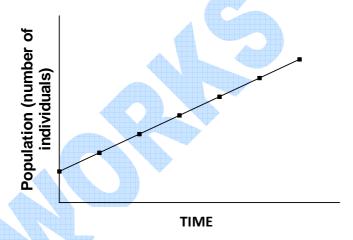
The shape is shaded, or it has arrows, or it is shaded and has arrows.



A. 1 C. 3 B. 2 D. 4

# The next 2 questions refer to the following information:

In an environment not limited by space or food, a population (number of individuals) of bacteria grows on the sides of a fish tank according to the following graph.

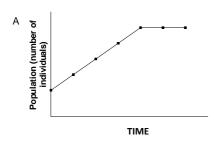


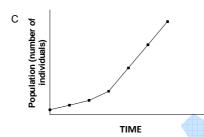


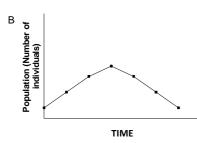
### **Question 28**

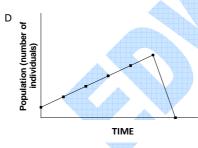
In a fish tank of limited size and food availability the population's growth changes.

1) Which graph indicates that there is no more space on the sides of the tank for the bacteria to grow?



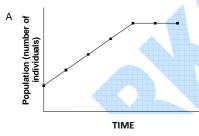


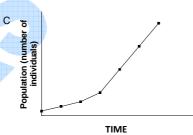


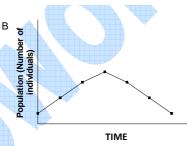


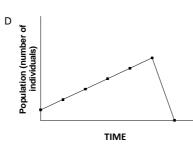
### **Question 29**

Which graph best represents that the conditions in the tank suddenly changed and caused the population of bacteria to be destroyed?











# The next question refers to the following information:

The table below shows the results of two plant species placed in sunlight and electric light at different temperatures and for different lengths of time.

The volume of oxygen released was measured.

Plant	Type of Light	Total volume of oxygen released (ml)	Temperature (°C)	Time in Days
Barley	Sunlight	400	20	5
Barley	Electric	1000	22	11
Geranium	Sunlight	550	22	5
Geranium	Electric	300	22	5

# CIRCLE THE CORRECT ANSWER.

### **Question 30**

From these results it can be concluded

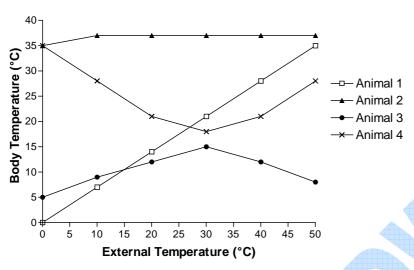
- A. Barley plants grow quicker than geranium plants
- B. Geranium plants grow quicker than barley plants
- C. Over the same period of time, geraniums release more oxygen when in sunlight
- D. Over the same period of time, barley releases more oxygen when in electric light

# The next question refers to the following information:

Endotherms or 'warm blooded' animals such as humans and other mammals, are animals that can control their own body temperature. That is, they generate their body heat from within their own bodies, and their body heat remains relatively constant. Ectotherms are known as 'cold blooded' animals such as lizards and snakes. These animals rely on external sources of heat, such as the sun, to raise and lower their body temperature.

The graph below shows the relationship between the internal body temperature and the external environmental temperature.





# CIRCLE THE CORRECT ANSWER.

### **Question 31**

From the above graph, which animal is most likely to be an ectotherm?

A. Animal 1

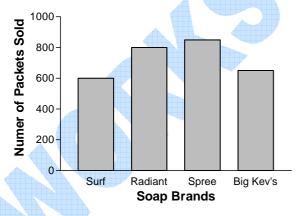
C. Animal 3

B. Animal 2

D. Animal 4

# The next 2 questions refer to the following information:

The local supermarket found out which types of soap powders people bought for washing clothes. The manager drew up a bar graph for the sales in one week.



### CIRCLE THE CORRECT ANSWER.

## **Question 32**

What is the approximate difference in amount of soap powder packets sold between the most popular brand and the least popular brand?

A. 50 packets

C. 250 packets

B. 100 packets

D. 150 packets



The manager then wanted to see which soap brand was the best value for money. Surf retailed for \$6.99 for 200g, Radiant retailed for \$5.99 for 200, Spree retailed for \$4.99 for 150g and Big Kev's retailed for \$5.99 for 150g.

### **Question 33**

Which soap powder is the best value for money?

A. Surf C. Spree B. Radiant D. Big Kev's

### **Practice Exam: COMPREHENSION**

The excerpt is taken from Banjo Patersons' famous poem, "The Bushfire". The following questions are multiple choice. Please answer by selecting the relevant letter that corresponds with your answer.

The Bushfire - by Banjo Paterson First Published in The Bulletin, 12th June 1886. The Bushfire, An Allegory. By A. B. "Banjo" Paterson.

And there the fire was flaming bright, For miles and miles it spread, And many a sheep and horse and cow Were numbered with the dead The super came to meet Old Bill, And this is what he said:

"No use, to try to beat it out,
'Twill dry you up like toast,
I've done as much as man can do,
Although I never boast;
I think you'd better chuck it up,
And let the jumbucks roast."

Then Bill said just two words:
"You're sacked,"
And pitches off his coat,
And wrenches down a blue gum bough
And clears his manly throat,

And into it like threshing wheat Right sturdily he smote. And beat the blazing grass until His shirt was dripping wet; And all the people watched him there To see what luck he'd get,



"Gosh! don't he make the cinders fly,
"And, Golly, don't he sweat!"
But though they worked like Trojans all,
The fire still went ahead
So far as you could see around,
The very skies were red,

Sometimes the flames would start afresh, Just where they thought it dead. His men, too, quarreled 'mongst themselves And some coves gave it best And some said, "Light a fire in front, And burn from east to west" –

But Bill he still kept sloggin' in, And never took no rest.

### Question 1

Why would they let the jumbucks roast?

# **Select One Possible Answer:**

- 1). 'The super' had done all he could to stop the fire and did not want his employees to dry out or become dehydrated.
- 2). It would be better to let a few sheep die from the fire than have his employees and friends die fighting the fire.
- 3). To ensure that they would not have to cook dinner after spending all day fighting the fires.

### Question 2

Why did 'Old Bill' sack 'the super'?

### Select One Possible Answer:

- 1). 'The super' was trying to stop 'Old Bill' from fighting the fire and risking his own life.
- 2). 'The super' was not working hard enough to prevent the fire spreading and was a bad influence on the other workers around him.
- 3). 'The super' was trying to beat 'Old Bill' in containing the fire, so that he would seem a hero to the other workers.
- 4). As 'Old Bill' was 'the super's' boss, he needed to make sure the 'the super' did not beat him.

### Question 3

What was the purpose of 'And beat the blazing grass until His shirt was dripping wet;'?

- 1). Beating the burning grass would cause the fire to extinguish.
- 2). By beating the grass and causing his shirt to become wet, he could continue to fight the fire for longer without suffering from heat stress and exhaustion.
- 3). He wanted those around him to be impressed by how hard he worked to stop the fire.



### **Question 4**

Why was all of the effort to stop the fire pointless?

# **Select One Possible Answer:**

- 1). The fire needed to occur to ensure the bush regenerated.
- 2). The men wanted to start another fire, and kept starting fresh fires around them.
- 3). The fire was unstoppable as there were not enough people to contain it. Just when they would stop the fire in one area, it would start up again elsewhere.

### **Question 5**

Why did the men want to stop the fire?

### **Select One Possible Answer:**

- 1). It was destroying the livelihood and subsequent prosperity in the area.
- 2). To save their sheep.
- 3). The men had travelled to Australia from England, to start a new life and did not realise fire is a necessary part of life.

### Question 6

What does the metaphor of 'worked like Trojans all' mean?

### **Select One Possible Answer:**

- 1). They worked as hard as a Trojan horse.
- 2). The Trojans warriors were famous for their warriors fighting abilities. The workers were similar in that they worked very hard and would not give up, until they had put the fire out.
- 3). "Old Bill" was a Trojan, and the workers shared his fire fighting ability.

### **Question 7**

Why would they suggest to, 'Light a fire in front, And burn from East to West'.

### Select One Possible Answer:

- 1). The men wanted to keep fighting the fire and therefore, started more fires to put out.
- 2). By burning the land ahead of them, the fire would have nothing to feed on and would burn out eventually.
- 3). The fire was going North to South. By making it go East to West they could prevent the fire burning all of the jumbucks.

### **Question 8**

Does the poem reflect Bill's narrow mindedness and dogged approach?

- 1). true
- 2). false
- 3). no impact