Bodindecha (Sing Singhaseni) School

Brush Up Your Brain 2024

English Program M.1

The examination is on Sunday, 4th February 2024, from 1:30 PM to 4:30 PM.

This examination is specifically designed for

the English Program M.1

Instructions:

1. This test consists of 1 section 32 pages.

   Section 1 Multiple-choice with 4 options, totaling 120 questions, for a maximum score of 600 points.

Part 1	Questions	1 – 60	English	6 points each	total of 360 points.
Part 2	Questions	61 - 90	Science	4 points each	total of 120 points.
Part 3	Questions	91 – 120	Mathematics	4 points each	total of 120 points.

2. For the answer sheet, please use a blue pen to write your first name, last name, examination room, and examination date. It is essential to write within the designated rectangular box. Use a blue ink pen to complete the 5-digit identification number. Shade the 5 digit identification number with a black 2B pencil, ensuring that it matches the numbers in the circles, as demonstrated in the example.

3. When providing answers, please use a 2B black pencil to shade the circle corresponding to your choice ① ② ③ or ④ on the answer sheet. Ensure that you completely fill in the circle without going outside its boundaries. In questions with only one correct answer, select a single option. For instance, if option 2 is the correct answer, follow this format: ① ● ③ ④ . If you need to change your selection, use an eraser to remove the shading from the original circle, ensuring it is spotless, and then shade the new choice within the process.

4. **Examinees are required to submit only the answer sheet, and they are permitted to take the test paper home.**

5. Examinees can leave the room at the end of the exam time.

6. Examinees are prohibited from opening and working on the exam paper until the exam proctor allows it.

7. Total scores determine the order of consideration, and in the event of a tie in total scores, the scores for individual subjects will be evaluated in the following sequence: English, Science, and Mathematics. If a tie persists, it will be treated as having the same rank.

Section 1: Multiple-choice with 4 options, totaling 120 questions, for a maximum score of 600 points.

Part 1: English, 60 questions (Questions 1 – 60), 6 points each.

Vocabulary Test (No. 1-10)

Directions: For each of the following sentences, choose the word that best completes the sentence from the four options provided. (No. 1-5)

1. Despite her optimism, she expressed _____ about the potential financial risks and project delays during the budget meeting.

1) concern	2) freedom
3) wisdom	4) enthusiasm

2. Living in an English-speaking nation is a / an _____ means of advancing your English language abilities.

1) competitive	2) imperative
3) repetitive	4) effective

3. Building strong relationships with others _____ trust and mutual respect, which are essential for meaningful connections.

1) inquires	2) requests
3) requires	4) commands

4) Jenny is an exceptionally competent and _____ secretary. She never makes mistakes, and I have complete trust in her.

1) reliable	2) inflexible
3) sociable	4) noticeable

5. The company provides comprehensive training programs to help _____ at all levels

develop new skills and excel in their roles.

    1) employers   2) colleagues

    3) attendants   4) employees

Directions: Fill in the blanks in the passage with the most appropriate words from the

options provided. (No. 6-10)

> In today's digital age, technology has revolutionized the way we learn. One of the greatest (6) _____ of technology in education is its ability to provide (7) _____ learning experiences.
>
> Adaptive software and interactive platforms adjust content to meet individual student needs, ensuring that no learner is left behind. Moreover, the (8) _____ of online learning allows students to access educational materials from anywhere, promoting flexibility in their schedules. This flexibility is especially valuable for (9) _____ learners and those pursuing lifelong learning opportunities. As educators embrace technology, they discover that it (10) _____ their teaching methods and empowers students to become self- learners who take ownership of their education.

6.   1) profits   2) advantages

        3) hardships   4) limitations

7.   1) limited   2) neglected

        3) digitized   4) personalized

8.   1) convenience   2) confidence

        3) acceptance   4) assistance

9.   1) patient   2) abnormal

        3) remote   4) passive

10.   1) hinders   2) enriches

        3) restricts   4) frustrates

Conversational Test (No. 11-20)

Directions: Choose the most appropriate response that demonstrates understanding and constructive engagement in each conversation.

Scenario 1:

At an international business conference, you chat with a colleague during a coffee break. They say, "Our latest project has been a rollercoaster, but we're finally seeing the light at the end of the tunnel," indicating their project had challenges but is close to successful completion.

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11. How should you respond to show understanding and empathy?

    1) That sounds tough. It's always darkest before the dawn, isn't it?

    2) Oh, I see. Do you often go to amusement parks?

    3) Projects can be challenging. I hope your team didn't work too hard.

    4) Interesting! But let's talk about more positive things now.

Scenario 2:

You are in a meeting where a colleague proposes a risky but innovative idea. They say, "I think it's time we think outside the box to stay ahead of the curve."

---

12. How do you express support for the idea while acknowledging its risk?

    1) Are you suggesting we do something illegal?

    2) That's too risky. Let's stick to what we know.

    3) Absolutely, let's disrupt the industry!

    4) Innovative thinking is key, but let's weigh the pros and cons.

Scenario 3:

You're discussing weekend plans with a classmate who says, "I'm probably going to hit the books this weekend, I've fallen behind on my reading."

13. How do you respond to show understanding and possibly offer help?

    1) You should relax on weekends. Reading can wait.

    2) Why would you hit your books? That's not good for them.

    3) That sounds like a lot. Do you need any help with your reading list?

    4) I'm also swamped with work. Can we form a study group?

Scenario 4:

In the cafeteria, a friend says, "I'm on a tight budget this month, so I'm bringing my lunch from home."

14. How do you respond to acknowledge their situation and show support?

    1) That's smart. Home-cooked meals are healthier, too. Do you want to share recipes?

    2) You should treat yourself sometimes. Don't be so frugal.

    3) Why? Did you lose your wallet?

    4) I understand. I'm also trying to save money. Maybe I can ask you for some food?

Scenario 5:

After a test, your classmate remarks, "That test was a piece of cake. I finished in half the time."

15. What's the best response to promote positive engagement and mutual sharing?

    1) That's not true. Everyone found it hard.

    2) Did the test involve baking? Why a piece of cake?

    3) Great to hear! Did you find any parts of the task especially easy?

    4) I struggled a bit. Do you have any study tips for next time?

Scenario 6:

You overhear a student saying, "I really need to buckle down this semester. My grades weren't great last term."

16. How do you respond to encourage them?

1) I'm also trying to improve my grades. Do you want to be study buddies?

2) Why? Did something happen to your belt?

3) Don't worry about grades too much; just have fun in college.

4) You've got this! Setting goals and a study schedule might help.

Scenario 7:

A friend mentions, "I'm feeling under the weather today. I might skip class."

17. How do you respond to show concern and understanding?

1) Take care of yourself. Let me know if you need notes from today's class.

2) You'll miss important lectures.

3) Is it raining outside? I didn't bring an umbrella.

4) I hope you feel better soon. Do you want some homemade soup?

Scenario 8:

During a group project discussion, a team member says, "I think we should touch base with the professor before proceeding."

18. How do you agree to their suggestion?

1) Good idea! A quick meeting can clarify our direction.

2) Sure, when should we arrange the meeting?

3) Let's just figure it out ourselves. We don't need the professor's help.

4) Do we have to play baseball with him?

Scenario 9:

A classmate complains, "I'm burning the midnight oil lately with all these assignments."

19. What is an appropriate response to show empathy?

1) Why are you using oil? Just use electricity. It is safer. ·

2) I understand. It's a busy time. We could help each other out.

3) That's college life for you! We all do it.

4) You should manage your time better to avoid late nights.

Scenario 10:

After a presentation, a peer remarks, "I was so nervous. I almost had butterflies in my stomach."

20. How do you respond to comfort them?

1) Did you eat something strange? Why butterflies?

2) You did well! The nervousness didn't show at all.   .

3) Next time, try to be more confident. It's just a presentation.

4) I get that feeling too. Deep breathing before speaking helps me.

Grammar Test: (No. 21-40)

Directions: Choose the most appropriate word or phrase to correctly complete each sentence. (No. 21-30) ·

21. She wanted to go to the concert _____ her friend had an extra ticket, so she canceled her other plans.

1) and   2) but

3) or   4) because

22. During your amazing and unforgettable travels last summer, _____ did you visit that made a lasting impact on you?

    1) where

    2) when

    3) who

    4) why

23. After the long, strenuous hike up the mountain, they were _____ tired to even talk about their adventure afterwards.

    1) so

    2) very

    3) too

    4) much

24. He drives much _____ than his brother, who tends to be a bit reckless and impulsive on the road.

    1) carefully

    2) more carefully

    3) most careful

    4) most carefully

25. We'd better _____ the car before dad returns home.

    1) to repair

    2) have repaired

    3) repair

    4) to have repaired

26. I haven't seen him _____ last Monday, which was the day we all met for our monthly book club meeting.

    1) in

    2) for

    3) on

    4) since

27. _____ there was quite a lot of traffic on the highway due to construction, we surprisingly arrived on time for the event.

    1) Despite

    2) Although

    3) Because

    4) Because of

28. I can't decide _____ book to read first from the pile I received as gifts for my recent graduation celebration.

    1) what
    2) where

    3) who
    4) which

29. The dog, which was quite energetic and playful, happily chased _____ tail in circles in the backyard yesterday.

    1) its
    2) it's

    3) their
    4) them

30. The championship trophy, which was highly wanted by all teams, _____ during the grand celebration event next month.

    1) will present
    2) will be presenting

    3) will be presented
    4) is presented

Directions: Select the best word or phrase to complete each sentence accurately and coherently. (No. 31-40)

       Last month, a new community center (31) _____ in our neighborhood. (32) _____ a place where people of all ages can gather and engage in various activities. The center offers not only art classes (33) _____ also yoga and cooking workshops. Everyone who has visited (34) _____ impressed by the facilities and the friendly staff. By next year, more programs (35) _____ to meet the growing interest of the community.

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31.   1) was opened
    2) opens

        3) opened
    4) is opening

32.   1) Its
    2) It is

        3) They're
    4) Their

33. 1) but   2) or

     3) and   4) so

34. 1) will   2) were

     3) have been   4) has been

35. 1) add   2) will be added

     3) added   4) have been added

The local library, (36) _____ many people find a quiet place to study, recently (37) _____ its hours to accommodate more visitors. In addition to books, the library offers (38) _____ workshops and events for all age groups. Most days, there (39) _____ many activities scheduled, and (40) _____ of the participants are students and young adults.

36. 1) when   2) where

     3) who   4) whom

37. 1) extended   2) extends

     3) have extended   4) will extend

38. 1) interested   2) interestingly

     3) interesting   4) interests

39. 1) is   2) were

     3) was   4) are

40. 1) few   2) much

     3) many   4) most

Reading Test: (No. 41-55)

Directions: Read the passage carefully and choose the best answer for each question based on the information provided in the text. (No. 41-50)

Artificial Intelligence: The Future of Technology

In recent years, artificial intelligence (AI) has become a key part of technological advancement. AI refers to machines or computers that can think and learn like humans. This technology is used in various fields, from healthcare and education to entertainment and transportation.

One of the most significant uses of AI is in healthcare. AI systems can analyze medical data faster than human doctors, helping to diagnose diseases more quickly and accurately. In education, AI can provide personalized learning experiences for students, adapting to their individual learning styles.

AI is also transforming the entertainment industry. For example, streaming services use AI to recommend movies and shows based on viewers' preferences. In transportation, self-driving cars use AI to navigate roads safely.

While AI has many benefits, it also raises important questions about privacy and job security. As AI becomes more common, it's crucial to address these concerns to ensure a future where technology benefits everyone.

41. What does AI stand for?

1) Automated Invention

2) Artificial Intelligence

3) Advanced Innovation

4) Automated Intelligence

42. Which field is NOT mentioned as using AI in the passage?

1) Healthcare

2) Education

3) Finance

4) Entertainment

43. How does AI help in healthcare?

1) By performing surgeries

2) By providing nursing care

3) By training doctors

4) By diagnosing diseases

44. What role does AI play in education according to the passage?

      1) Replacing teachers

      2) Setting exams

      3) Providing personalized learning experiences

      4) Building schools

45. How do streaming services use AI?

      1) To recommend shows and movies   2) To create new content

      3) To increase subscription fees   4) To play content

46. What application of AI is mentioned in transportation?

      1) Building roads   2) Self-driving cars

      3) Fuel management   4) Ticket booking

47. Which of these is a concern raised by AI?

      1) Entertainment quality   2) Speed of computers

      3) Privacy and job security   4) Cost of smartphones

48. According to the passage, AI can adapt to what in education?

      1) Government policies   2) School budgets

      3) Individual learning styles   4) Teacher qualifications

49. What is a benefit of AI in healthcare?

      1) Reduced need for doctors   2) More hospitals

      3) Cheaper medical equipment   4) Faster and more accurate diagnoses

50. The passage suggests that in the future, it is important to_____.

      1) ensure AI benefits everyone   2) stop using AI

      3) focus only on AI in transportation   4) use AI only in education

Directions: Read the passage carefully and choose the best answer for each question based on the information provided in the text. (No. 51-55)

Renewable Energy Sources

Renewable energy is essential for a sustainable future. It comes from natural sources like the sun, wind, moving water, and the Earth's heat. Solar panels turn sunlight into clean and abundant electricity. Wind turbines use wind power without harming the environment.

Hydroelectric power, one of the oldest renewable sources, comes from flowing water, and geothermal energy uses heat from the Earth, especially in volcanic areas.

Shifting to renewable energy reduces carbon emissions and provides long-lasting solutions. As technology improves, these energy sources become more efficient and affordable, making our future greener.

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51. What is the primary source of renewable energy in the passage?

    1) Natural gas   2) Wind power

    3) Solar panels   4) Fossil fuels

52. How is sunlight converted into electricity?

    1) Using solar panels   2) By wind turbines

    3) Through hydroelectric power   4) From geothermal heat

53. Which energy source mentioned is considered eco-friendly?

    1) Fossil fuels   2) Nuclear power

    3) Natural gas   4) Geothermal energy

54. Where does geothermal energy primarily come from?

    1) Sunlight   2) Earth's internal heat

    3) Wind power   4) Ocean currents

55. What is one of the key goals of shifting to renewable energy sources?

    1) Increasing carbon emissions

    2) Reducing energy efficiency

    3) Providing short-term solutions

    4) Lowering carbon emissions and creating sustainable solutions

Error Identification Test in Grammar

Directions: In each of the following sentences, there is one error in grammar. Your task is to select the correct option from the four choices provided. (No. 56-60)

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56. She not only enjoys (1) playing the piano but also (2) excel in composing her own beautiful and (3) inspiring music and (4) captivating audiences with her talent.

57. They wanted to go (1) swimming, but the pool (2) were closed for maintenance, leaving (3) them disappointed on (4) a hot summer day.

58. The company plans to (1) expand its operations, (2) hire new employees, (3) increase profits, and (4) explores new markets.

59. There is (1) little food left in the refrigerator, (2) so we should go grocery shopping since we have (3) much meals to prepare, and they require (4) many ingredients.

60. Mathematics (1) are used in (2) many areas, such as engineering for designing and finance for managing money, making (3) it essential in (4) many fields.

Part 2: Science, 30 questions (Questions 61 – 90), 4 points each.

61. You are performing an experiment combining two substances in a closed container. You first pour 350 mL of substance one followed by 430 mL of substance two. A chemical reaction occurs. Choose the equation below that would best explain the total mass of the combined substances.

1) 430 mL - 350 mL = 80 mL

2) 350 mL x 430 mL = 780 mL

3) 350 mL + 430 mL = 780 mL

4) 780 mL - 430 mL = 350 mL

62. Austin and Keion are conducting an experiment on how to strengthen their electromagnet. Currently, the magnet will pick up and hold 7 round pieces of metal. They have conducted a number of tests with different actions and recorded their results. What conclusion can you draw based on the data from their results?

Test Action	Pieces of Metal Picked Up
Add 5 more loops to the coil	18
Decrease loops to the coils by 5	6
Use a lower voltage battery	5
Use a different type of wire	7

1) The electromagnet was made stronger by adding loops to the coil.

2) The electromagnet was made stronger by removing loops from the coil.

3) The electromagnet was made stronger by using a lower voltage battery.

4) The electromagnet was made stronger by using a different type of wire.

63. Which two animals would be classified together?

    1) Lion and duck

    2) Fox and hedgehog

    3) Piranha and owl

    4) Puffin and squirrel

64. Which feature classifies an animal as a vertebrate?

    1) Lungs

    2) Backbone

    3) Four legs

    4) Skin

65. Organisms at the beginning of a food chain are called _____.

    1) consumers

    2) predators

    3) omnivores

    4) producers
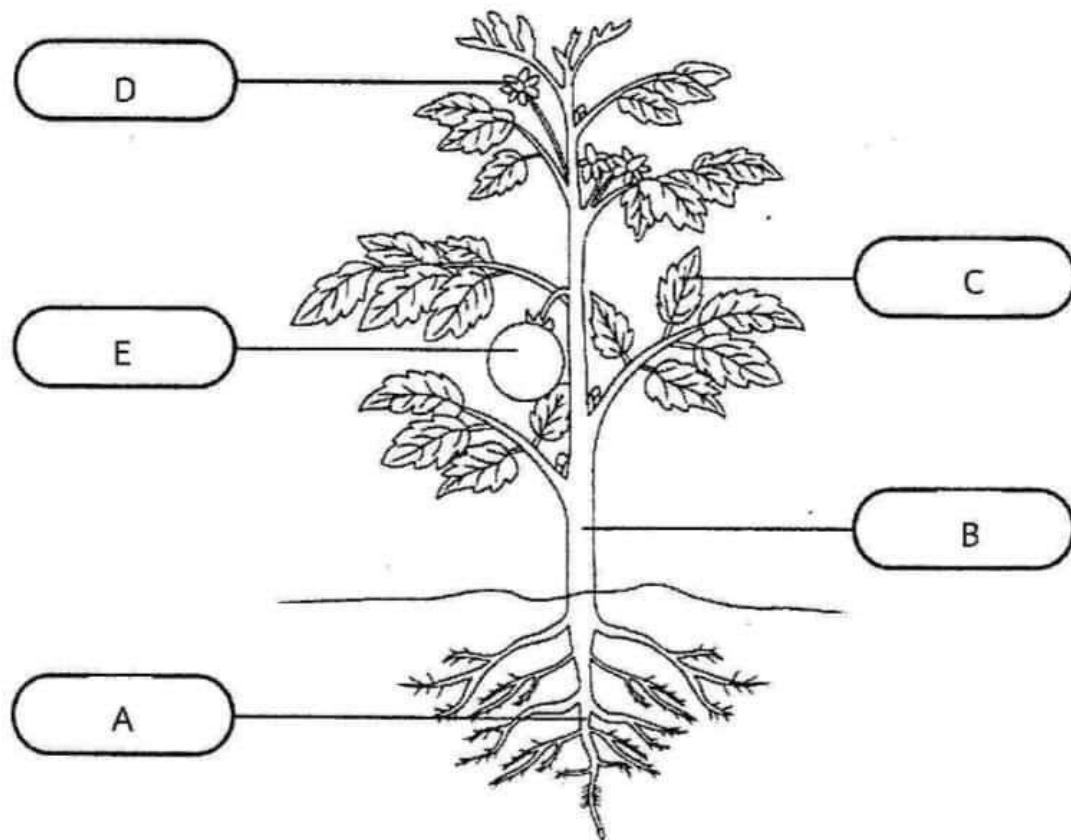
66. Which of these do we inherit from our parents?

    1) Skin color

    2) Ear piercing

    3) Favorite color

    4) Scars

67. Which surface would it be easier for a ball to roll over?

    1) Pebbles

    2) Grass

    3) Bark

    4) Ice

Look at the photo and use for answer the question number 68 - 69

68. Which part of a plant carries water to different areas of the plant?

    1) Part A

    2) Part B

    3) Part C

    4) Part D

69. The C of a plant mainly ___.

    1) make food

    2) transport water

    3) support the plant

    4) keep the plant upright

70. Which of the states of matter changes its shape and volume to fill the container it is in?

   1) benzene

   2) Gold

   3) Water

   4) Liquefied petroleum gas

71. What happens when a gas is cooled down?

   1) It evaporates

   2) It freezes

   3) It condenses

   4) It melts

72. Which is an example of a physical change?

   1) a candle burning

   2) rust on a bicycle

   3) ice cream melting

   4) a firework exploding

73. Which of the following indicate that a chemical reaction has occurred?

   1) an odor

   2) a change in color

   3) the formation of gas bubbles

   4) all of these indicate that a chemical reaction has occurred.

74. Which of the following is a result of global warming?

   1) Sea levels staying the same

   2) Sea levels falling

   3) Sea levels rising

   4) Sea levels falling and rising

75. For a solar eclipse to occur, the alignment must be

    1) Sun, Earth, Moon

    2) Sun, Moon, Earth

    3) Earth, Sun, Moon

    4) None of the above

76. Which planet is closest to the Sun?

    1) Venus

    2) Jupiter

    3) Mercury

    4) Neptune

77. The rocky planets are _____ the Sun.

    1) the furthest away from

    2) the closest to

    3) inside

    4) too far away from

78. Which of these facts about light is true?

    1) It travels in straight lines

    2) It is slow

    3) It bends around corners

    4) It cannot be reflected

79. What can sound waves travel through?

    1) Just solids

    2) Just liquids

    3) A vacuum

    4) Solid, liquids and gases

80. When the raindrops get heavy in the clouds, they fall as snow, hail or rain. This is called

_____

1) climate

2) condensation

3) evaporation

4) precipitation

81. Identify the statement that best describes where Earth's freshwater can be found.

1) Most of the freshwater is trapped in glaciers and ice caps.

2) Earth's freshwater is spread out equally over ice, groundwater, and surface water.

3) Most of the freshwater on Earth is found underground. The rest is stored as surface water.

4) Earth's freshwater is found mostly in rivers and streams. Very little is found in glaciers or ice caps.

82. What happens when objects with the same static charge are near to each other?

1) They repel

2) They attract

3) They do not affect each other

4) They levitate

83. Where does chemical digestion of protein end?

1) In the stomach

2) In the mouth

3) In the small intestine

4) In the large intestine

84. What happens to food in the stomach?

    1) It is mixed with saliva

    2) It is mixed with acid

    3) It is absorbed into the blood

    4) It is broken down by teeth

85. What does your body use protein for?

    1) Growth and repair

    2) Insultation

    3) Transporting oxygen

    4) Energy only

86. How can water be separated from a salty solution?

    1) Sieving

    2) Heating

    3) Melting

    4) Filtering

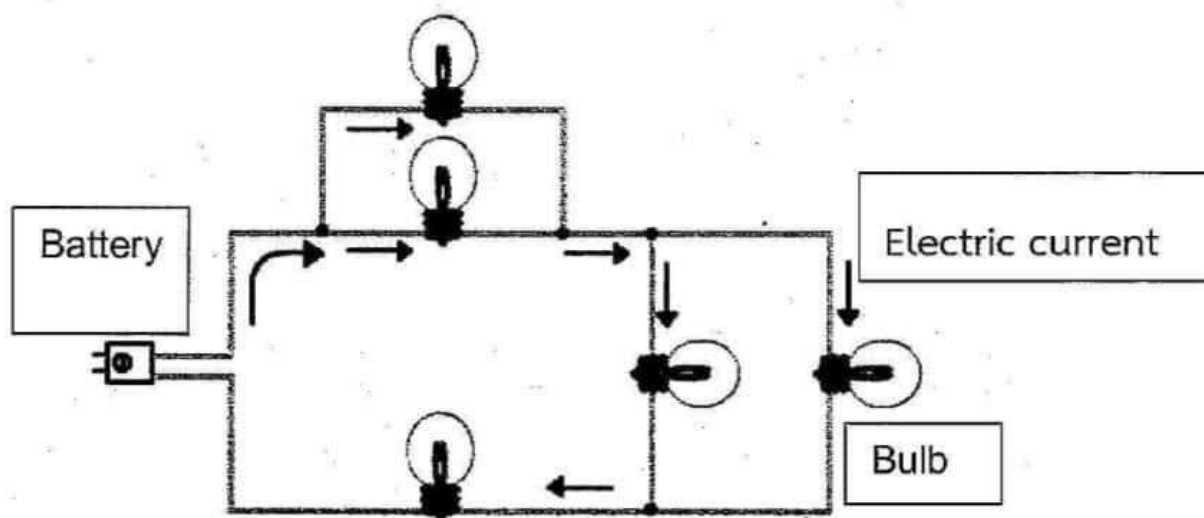87. You can use ____ to separate a sand and water solution and be left with both at the end.

    1) a sieve

    2) filter paper

    3) evaporation

    4) heat

88. Which type of rock may contain fossils?

    1) Impermeable

    2) Metamorphic

    3) Igneous

    4) Sedimentary

Look at the photo and use for answer the question number 89

89. What would happen if one bulb was removed from this circuit?

1) The bulbs would be dull

2) The battery would break

3) The bulbs would change color

4) The bulbs would be brighter

90. Which type of rock is formed when molten rock cools down?

1) Metamorphic

2) Sedimentary

3) Igneous

4) Impermeable

Part 3: Mathematics, 30 questions (Questions 91 – 120), 4 points each.

91. The table below shows the length of the hiking trails at a local park. Aaron hikes half of the blue trail. What distance did he hike?

Hiking Trails	
Trail	Length (kilometers)
Red	1.09
Blue	1.86
Green	1.10
Yellow	1.28

1) 0.5 km

2) 0.93 km

3) 1.86 km

4) 3.72 km

92. Candace is knitting a scarf. The scarf is 4.6 meters long. If she knits another 1.75 meters, how long will the scarf be?

1) 6.35 m

2) 5.81 m

3) 5.35 m

4) 2.85 m

93. Ms. Ayala had 152 pencils. She divided the number of 3 pencils equally among 13 students. She kept the leftover pencils in her desk. What is the greatest number of pencils Ms. Ayala could have given each student?

    1) 9 pencils

    2) 10 pencils

    3) 11 pencils

    4) 12 pencils

94. Kono divides the numerator and denominator of $\dfrac{48}{72}$ by the greatest common factor to simplify the fraction in one step. By what number does he divide?

    1) 2

    2) 12

    3) 16

    4) 24

95. After January 1, Aleta has band practice every fourth day and swimming lessons every third day. If both programs end January 31, how many days in January will Aleta have both band practice and swimming lessons?

    1) 1 day

    2) 2 days

    3) 3 days

    4) 4 days

96. In simplest form, what is the value of $\dfrac{2}{3}+\dfrac{4}{5}-\dfrac{1}{6}\div\dfrac{2}{9}$

1) $\dfrac{17}{30}$

2) $\dfrac{37}{60}$

3) $\dfrac{51}{60}$

4) $\dfrac{34}{270}$

97. In simplest form, what is the value of $\dfrac{4}{7}$ of 18% of 49%

1) 72

2) 540

3) $\dfrac{18}{175}$

4) $\dfrac{63}{1,250}$

98. A triangle has sides measuring 3.54 cm., 5.12 cm., and 2.30 cm.. Add to find the perimeter of the triangle.

1) 10.69 cm.

2) 10.96 cm.

3) 11.06 cm.

4) 11.96 cm.

99. For every 12 slices of pizza sold at Ping's Pizza Shop, 3 slices are pepperoni, 4 slices are sausage, and the rest are cheese. What is the ratio of pepperoni to cheese?

1) 3:12

2) 3:4

3) 3:5

4) 5:3

100. Kara is training for a 5-kilometer race. On the first day of training, she runs 0.75 kilometer.

What percent of the total distance does she run the first day of training?

1) 5%

2) 10%

3) 15%

4) 25%

101. A 4-pack of batteries costs 516 baht. At this price, what is the cost of one battery?

1) 129 baht

2) 149 baht

3) 516 baht

4) 2,064 baht

102. The table shows the cost of ride tickets at the fair. What is the unit rate for one ride

ticket?

Number of Tickets	Cost (Baht)
5	375
10	750
15	1,125
20	1,500

1) 37

2) 55

3) 70

4) 75

103. Kali earned 4,000 baht for babysitting for 5 hours. At this rate, how much will she earn for babysitting for 7 hours?

    1) 800 baht

    2) 4,500 baht

    3) 4,700 baht

    4) 5,600 baht

104. Tia, Veronica, Pam, and Lily are sisters. Tia is 8 years old and she is 2 years older than Pam. Pam is 5 years younger than Veronica and Veronica is 4 years younger than Lily. Which list has the sisters in order from youngest to oldest?

    1) Tia, Veronica, Pam, Lily

    2) Lily, Veronica, Tia, Pam

    3) Tia, Pam, Veronica, Lily

    4) Pam, Tia, Veronica, Lily

105. The table below shows the cost for different numbers of tickets.

Number of Tickets	2	4	6	8	10
Cost (Baht)	1,200	2,400	3,600	4,800	6,000

Based on the information in the table, which of the following statements is true?

    1) Each ticket costs 200 baht.

    2) Each ticket costs 600 baht.

    3) The more tickets you buy the less each ticket costs.

    4) The more tickets you buy the greater each ticket costs.

106. a represents the length of one side of a square

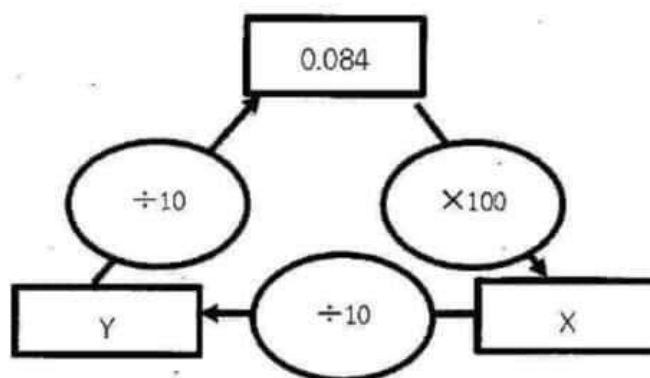b represents the length of one side of a equilateral triangle

The perimeter(p) of a square and a equilateral triangle is the same. If the perimeter of each shape is 60 cm., what is the value of a+b?

1) 5 cm.

2) 15 cm.

3) 20 cm.

4) 35 cm.

107. Meera is thinking of a number. She adds 4,789 to her number, then subtracts 5,432. She gets the answer 9,875. What number is Meera thinking of?

1) 9,232

2) 10,221

3) 10,518

4) 20,096

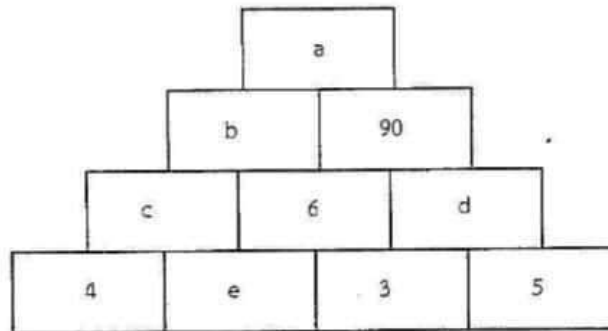108. What is the value of X – Y ?

1) 0.84

2) 7.56

3) 8.4

4) 9.24

109. Each number in the wall is made by multiplying the numbers in the boxes directly

below. What is the value of a + b ?

1) 4,272

2) 4,320

3) 4,368

4) 4,393

110. Lanu draws a rectangle that is 10 cm. wide and 20 cm. long. Which rectangle described
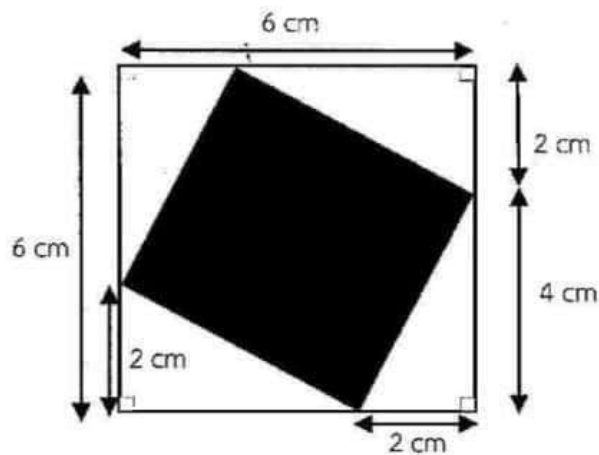
below has the same area?

    1) 5 cm. wide and 25 cm. long

    2) 8 cm. wide and 25 cm. long

    3) 15 cm. wide and 15 cm. long

    4) 15 cm. wide and 25 cm. long

111. What is the value of $532 \times 13 + 840 \div 24$?

    1) 2,128

    2) 5,816

    3) 6,916

    4) 6,951

112. What is the area of the black square?

6 cm

2 cm

6 cm

4 cm

2 cm

2 cm

1) 4 cm^2

2) 16 cm^2

3) 20 cm^2

4) 36 cm^2

113. One hundred sixty-seven students go on a field trip to the zoo. Each van can seat 11 students. Using the fewest number of vehicles possible, how many vans are needed?

1) 11 vans

2) 15 vans

3) 16 vans

4) 17 vans

114. What is the value of the expression $45 + 36 \div 9$?

1) 1

2) 9

3) 41

4) 49

115. What is the value of the expression $(12-4)\times\left[(6+15)\div3\right]$?

  1) 17

  2) 21

  3) 56

  4) 88

116. What are the next three terms in the following sequence? 7, 13, 19, 25,...

  1) 27, 33, 49

  2) 29, 33, 37

  3) 30, 37, 43

  4) 31, 37, 43

117. A 100 meters running competition has 4 competitors. Each competitor takes time to run from the beginning to the goal as shown in the table below.

Competitors	Time of running (second)
Kan	10.51
Kham	11.03
Kim	11.20
Kao	10.37

Which order is correct about competitors who reached the goal from first to last?

  1) Kao, Kan, Kham, Kim

  2) Kao, Kan, Kim, Kham

  3) Kim, Kham, Kan, Kao

  4) Kim, Kham, Kao, Kan

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118. What is the value of the expression $\left(2.355 \div 0.5\right)+3\dfrac{2}{5}$?

    1) 5.91

    2) 7.51

    3) 8.11

    4) 11.11

119. If the LCM. of 24 and 30 is a , and the GCD of a and 60 is b, then what is a + b ?

    1) 60

    2) 66

    3) 120

    4) 180

120. Five numbers are given: 2, 3, 4, 5, and 6. If you must choose four different numbers to put in to get the highest result of $\dfrac{\square}{\square}-\dfrac{\square}{\square}$, then what is the highest result?

    1) $1\dfrac{1}{3}$

    2) $1\dfrac{3}{5}$

    3) $2\dfrac{2}{3}$

    4) $2\dfrac{2}{5}$