Multiple-choice with 4 options, a total of 120 questions, for a maximum score of 600

points.

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

A: Vocabulary Test (Items 1 - 10)

Directions: Choose the word that best completes the sentence from the four options

provided. (Items 1-5)

1. Learning a new language can seem overwhelming at first, but with eagerly _____

practice, it later becomes easier

1) instant	2) multiple
3) consistent	4) systematic

2. The teacher spoke in a _____ tone, warning the students about the consequences of

cheating on the final tests.

1) threatening	2) annoying
3) disappointing	4) frustrating

3. Regular exercise is an _____ way to improve both physical and mental health,

especially for teens and young adults.

1) adequate	2) extraordinary
3) ample	4) effective

4. The school encourages students to _____ critical thinking skills through challenging

coursework and group discussions.

1) engrave	2) cultivate
3) intensify	4) maximize

5. With the rise of social media, the internet now contains _____ posts and updates

every second. So, managing screen time and digital consumption has become a major

concern.

1) active	2) insignificant
3) several	4) innumerable

Cloze passage for items 6 – 10

Directions: Fill in the blanks in the passage with the most appropriate word from the four options provided.

Gamification is the new process of incorporating game-like elements and principles, such as points, badges, challenges, and rewards, into non-game contexts to _____6_____ engagement, motivation, and participation for students at any school level. Teachers are increasingly using gamification to improve student overall _____7_____ in their various classes. Digital platforms like Kahoot! have made it easier for teachers to integrate quizzes, rewards, and challenges into a bunch of lessons to make them more interactive and enjoyable. Gamification can offer _____8_____ benefits, particularly in encouraging and maintaining student's motivation. For example, students might earn points for completing assignments, _____9_____ quizzes to "level up," or unlock new learning materials after mastering a concept. This approach encourages friendly competition, fosters teamwork, and makes students feel more invested in their education. Gamification also _____10_____ immediate feedback, helping students track their progress and stay motivated to achieve their academic goals. As a result, it can increase student participation, improve retention of information, and make the classroom environment more dynamic and fun.

6. 1) broaden   2) enhance
    3) combine   4) respond

7. 1) outcome   2) operation
    3) performance   4) achievement

8. 1) numerous   2) positive
    3) intense   4) obvious

9. 1) compete in   2) assist in
    3) participate in   4) specialize in

10. 1) denotes   2) seizes
    3) conveys   4) provides

B: Situational Conversations (Items 11 - 20)

Directions: Choose the most appropriate response in each conversation

---

Thomas : _____11_____. Let's go have lunch.

Jimmy : Why are you so hungry? Did you eat breakfast?

Thomas : _____12_____. I got up at 8:15. I just drank a glass of orange juice.

That's all I had time for. Did you eat anything this morning?

Jimmy : Sure. I always do. I had my usual big breakfast.

Thomas : What did you have?Jimmy :

Jimmy : Scrambled eggs, toast, cereal, juice, and milk. _____13_____

Did you stay up late last night?

Thomas: Yes. I went to a movie and got home at about 10:00. Then I studied for a

couple of hours.

---

11. 1) I'm dying of thirst   2) I'm starved

     3) I'm thinking of you   4) I'm swamped

12. 1) Not really   2) I'm not in that way

     3) I haven't started it yet   4) Unfortunately, I have to skip

13. 1) Did you enjoy the movie?   2) Why did you eat too much?

     3) How did you find it?   4) Why did you get up late?

A : I'm getting very frazzled and can't eat anything. My laptop filled with a bunch

of work files and presentation slides was missing.

B : _____14_____. Did you tell someone?

---

14. 1) You're maxed out with work

     2) You should be more careful next time

     3) How shocking! It is such a very big problem

     4) Losing something is going to cause so many things in your life

> A : Do you have anything planned for this Valentine's Day?
>
> B : _____15_____. Any suggestions?

15. 1) I'm just killing time 2) It doesn't matter

    3) I'm off to hang with my friends 4) Nothing in particular

> A : I have a plan to purchase an Apple Air Pods 4. I can't wait to spend time listening to my favorite song lists.
>
> B : What? Yesterday you were just complaining that you had been _____16_____.

16. 1) flat broke 2) out of reach

    3) on diet 4) on and off

Steve :	Welcome back to Thailand.
Jessica :	Thanks. _____17_____.
Steve :	How was your European trip?
Jessica :	Great. Nothing can describe a feeling of joy.
Steve :	How many days were you away?
Jessica :	Almost a couple of weeks. We have been to many well-known cities and have spent time on cruise ship on the Adriatic Sea.
Steve :	The Adriatic Sea? _____18_____ How much time did you spend there?
Jessica :	Not much. Only four days. But it was fantastic. We took about a hundred photos. And we ate and slept on a ship.
Steve :	Really? How many people were on the ship?
Jessica :	Around forty including us. It was such a very good time that I met them. Everyone was interesting people.
Steve :	_____19_____ on the cruise ship?
Jessica :	Don't ask! I loved everything on the ship!
Steve :	I'll bet. How much did the trip cost?
Jessica :	Don't ask. My dad and mom spent almost 10k.
Steve :	Well, _____20_____.

17. 1) I was so tired of traveling

2) I miss you so much, bro

3) Taking a long trip makes me sad

4) I'm looking forward to hearing from you

18. 1) That sounds exciting!

2) You won't believe what I found out today.

3) It couldn't be better.

4) You actually did it!

19. 1) Did they provide you with good meals

2) Which activities did you participate

3) Which activity did you enjoy most

4) Did you buy something

20. 1) the world is yours to explore   2) dare to live your own way

3) your life is your choice   4) nothing beats travel

C: Grammar and Structure (Items 21 - 45)

Directions: Choose the best answer.

21. Even though he exercises daily, he _____ to lose weight.

1) struggle   2) is struggling

3) struggles   4) may struggle

22. The team will succeed if they _____ focused and work together towards the goal.

1) stay   2) will stay

3) to stay   4) can stay

23. Over the years, he has faced tremendous challenges in his student's life but _____.

1) never gave up   2) not to give up

3) never gives up   4) has never given up

24. I study in the library during the week to prepare for exams, and my friend studies at home,

_____ it is quieter and more comfortable.

1) what

2) which

3) when

4) where

25. She loves hiking in the mountains during the summer, _____ she always makes sure to

bring her camera to capture the breathtaking scenery she encounters along the way.

1) or

2) and

3) but

4) yet

26. Those who think for _____ often succeed more than those who simply follow

others.

1) them

2) themselves

3) its

4) itself

27. When temperatures drop, European honeybees take to their hives, where they

clustertogether, remaining active throughout _____ .

1) the very winter months long

2) very long the winter months

3) the very long winter months

4) winter months the very long

28. This summer has utterly been _____ of all time, and many people are enduring to

cope with the heat.

1) hotter

2) the hottest

3) the more hot

4) the hottest ever

29. The Burrells postponed _____ on their annual trip because they wanted to save

more money, but they are still eager _____ Europe as soon as their budget allows.

1) going / to visit

2) to go / to visit

3) going / visiting

4) to go / visiting

30. Recycling programs _____ to mitigate waste and reduce landfill overflow.

    1) design   2) designed

    3) are designed   4) might be designed

31. Alice, a talkative girl, can speak French, _____?

    1) can't her   2) doesn't her

    3) can't she   4) doesn't she

32. The unexpected questions made by the teacher seemed to _____ him during the presentation.

    1) embarrass   2) embarrassed

    3) embarrassing   4) embarrassment

Cloze passage for items 33 – 35

<u>Directions</u>: Choose the best answer according to the correct grammar, structure, and word choice.

        The lion is known for its power and strength, as well as its famously fierce roar. _____33_____, a lion's roar can be as loud as 114 decibels— about as loud as thunder. These sounds are made _____34_____ both lions and lionesses, though lionesses do not roar as often, or as loudly.

        Male lions, especially the dominant lion in the pride which is claimed as the lion family group, _____35_____ to warn others to leave their territory. They also roar to communicate their location to their family; this is called social roaring.

---

33.   1) Then   2) However

      3) Since   4) In fact

34.   1) of   2) with

      3) by   4) upon

35.   1) roar   2) roared

      3) roaring   4) are roaring

Cloze passage for items 36 – 40

Directions: Choose the best answer according to the correct grammar, structure, and word choice.

Mountains and rivers are two of the most significant features of _____36_____. They shape the environment and provide essential resources _____37_____ life. They both have a symbiotic relationship. Rivers provide water that nourishes plants and animals, and in return, the mountains act as barriers that influence the path of the rivers. Rivers can carve deep valleys and canyons in mountains, _____38_____ stunning natural wonders. The water in rivers is essential for sustaining ecosystems and providing drinking water to many regions.

Mountains also have a major impact on climate. High mountain ranges often create weather patterns by blocking the flow of air masses. As air rises over a mountain range, _____39_____, leading to precipitation on the windward side. The leeward side often remains dry, creating arid conditions. This phenomenon is known as the "rain shadow effect."

Both mountains and rivers _____40_____ on Earth. They are sources of water, minerals, and energy, and they support diverse ecosystems. People around the world admire these natural wonders and continue to rely on them for resources, recreation, and inspiration.

36.
1) the Earth's landscape vast
2) the vast Earth's landscape
3) the Earth's vast landscape
4) the landscape's vast Earth

37.
1) for
2) to
3) in
4) against

38.
1) creates
2) creating
3) created
4) to create

39.
1) it cools
2) they cool
3) it is cooled
4) they are cooled

40.
1) are critical in life
2) are severe in life
3) are critical to life
4) are severe to life

Error identification for items 41 - 45

Directions: Identify the error in each sentence by choosing one of the underlined words or phrases that is grammatically INCORRECT.

41. John, a chubby boy in 11ᵗʰ grade, tried 1. his best to go to the school gym 2. almost every day 3. in order to get in 4. best shape for the upcoming marathon.

42. The weather forecast predicted heavy rain and strong winds 1. for the entire weekend, 2. so we 3. have to cancel our camping trip and decided to 4. stay home instead with a good book and some hot chocolate.

43. The weather forecast predicted clear skies and sunshine all day; however, 1. as soon as we 2. reach the park, dark clouds 3. rolled in, and it began to rain 4. heavily, forcing us to cut our outing short.

44. The ancient era was marked 1. by the rise of powerful civilizations such as the Egyptians and Romans, each contributing greatly to human history, and 2. for that time, people 3. relied on oral traditions 4. to pass down knowledge and stories to future generations.

45. Life at school can be both 1. excited and challenging, as students balance 2. their academic responsibilities with extracurricular activities, 3. while also forming lasting friendships 4. And developing important life skills.

D: Reading Comprehension (Items 46 – 60)

Directions: Read the given reading passages and answer the questions.

Reading Passage 1 (Items 46 – 50)

Canva, a very unique graphic design platform, has become a game-changer for students, transforming how they approach design projects. In 2013, Melanie Perkins, a student at the University of Western Australia, came up with the idea for Canva after noticing how difficult it was for students to use traditional graphic design software. She wanted to create a simpler, more accessible tool for students to create beautiful designs. Finally, she founded Canva with her team members including Cliff Obrecht and Cameron Adams. Canva soon became a popular platform for students, thanks to its ease of use and vast library of templates.

For many students, Canva has become an essential tool for school projects, presentations, and assignments. Instead of struggling with complex software, students can quickly create eye-catching visuals by dragging and dropping elements into pre-made templates. Whether it is designing a poster for a science project, creating a presentation for a history class, or making a resume, Canva's simplicity and flexibility make it a go-to for students at all levels.

Moreover, Canva allows for collaboration, so students can work together on projects in real-time, even when they are in different locations. The platform's free access and user-friendly design have made it an invaluable resource for students worldwide, helping them produce professional-looking designs without the need for advanced graphic design skills.

Over the years, Canva expanded its features, adding new templates, fonts, and design elements. It also introduced a collaboration feature that allowed teams to work together on designs in real time. As of today, Canva is used by millions of people worldwide, from individuals to businesses, to create everything from marketing materials to personal projects. With its innovative approach, Canva has truly democratized design, making it accessible to all people around the world.

46. What was the main reason that Melanie Perkins created Canva?

   1) To create a tool for businesses

   2) To simplify graphic design for students

   3) To create a marketing platform

   4) To design social media posts

47. How does Canva help students with their design projects?

   1) By requiring advanced design skills

   2) By offering in-person design classes

   3) By offering untimely free graphic design courses

   4) By providing templates that can be customized easily

48. What feature did Canva introduce to enhance collaboration among students?

   1) Real-time design collaboration

   2) Email notifications

   3) In-app messaging

   4) Video tutorials

49. What makes Canva a popular platform among students?

   1) Its expensive pricing

   2) Its focus on corporate users

   3) Its ease of use and vast library of templates

   4) Its requirement for advanced graphic design knowledge

50. What is the main author's purpose in writing this passage?

   1) To criticize the impact of Canva on students.

   2) To highlight the impact of Canva on students

   3) To persuade readers about the impact of Canva on students.

   4) To entertain readers about the impact of Canva on students.

Reading Passage 3 (Items 51 – 55)

Maintaining good health is essential for living a long and active life. It requires a balanced approach, which includes proper nutrition, regular physical activity, and mental well-being. People who follow healthy habits tend to live longer and experience fewer health problems.

Initially, a well-balanced diet is crucial. It is important to consume a variety of foods to ensure that the body gets all the necessary nutrients. Fruits, vegetables, whole grains, and lean proteins provide the vitamins and minerals that the body needs to function properly. Drinking enough water also plays a key role in maintaining good health. Hydration helps regulate body temperature, keeps joints lubricated, and supports digestion.

Regular physical activity is another <u>pillar of good health</u>. Exercise strengthens the heart, muscles, and bones while improving circulation. It also helps manage weight and reduces the risk of chronic conditions such as heart disease, diabetes, and high blood pressure. People who exercise regularly often report feeling more energetic and having better mental clarity.

In addition to physical health, mental health is equally important. Managing stress through activities like meditation, deep breathing, and spending time with loved ones can reduce the risk of mental health problems. Sleep is another key factor. Getting enough rest allows the body to recover and the mind to recharge, improving mood and overall well-being.

Lastly, regular check-ups with a doctor help detect potential health issues early, leading to more effective treatment and prevention. A routine medical examination is vital for staying on top of one's health and catching any problems before they become serious. By combining healthy eating, physical activity, stress management, and medical care, everyone can maintain good health and live a more fulfilling life.

51. What is the overall message of the passage?

1) Good health is only about physical exercise

2) Only mental well-being is important for health

3) Regular check-ups are the most important factor for good health

4) A combination of healthy eating, physical activity, stress management, and medical care leads to good health

52. According to the passage, what is one benefit of regular physical activity?

    1) It helps decrease energy levels

    2) It does not affect mental health

    3) It makes sleep more important to people

    4) It helps manage weight and reduces the risk of chronic conditions

53. What can manage stress through activities like meditation and deep breathing help reduce?

    1) The need for sleep

    2) The need for physical activity

    3) The risk of mental health problems

    4) The number of medical check-ups required

54. Which of the following is **NOT** mentioned as a benefit of regular physical activity?

    1) Strengthening the heart, muscles, and bones

    2) Reducing the risk of chronic conditions

    3) Improving and controlling circulation

    4) Increasing the need for hydration

55. According to the passage, what does the phrase "**pillar of good health**" mean?

    1) A fundamental aspect that is essential to maintaining good health

    2) A dietary supplement that supports overall well-being

    3) A specific health issue that needs to be addressed

    4) A physical exercise that promotes weight loss

Reading Passage 2 (Items 56 – 60)

English is a diverse and ever-evolving language, enriched by loanwords borrowed from other languages throughout history. These words entered English through cultural exchange, trade, wars, and exploration, reflecting its global influences. From French, we adopted words like ballet, café, rendezvous, and souvenir, especially after the Norman Conquest of 1066. Latin contributed significantly, particularly to science, religion, and law, with terms such as et cetera, alibi, data, and agenda. From German, we borrowed kindergarten, doppelgänger, and zeitgeist, while Italian gave us words like pizza, piano, spaghetti, and fresco. Languages outside Europe also left their mark; for instance, from Japanese, we have karaoke, tsunami, and sushi, while Arabic introduced algebra, coffee, and safari. These loan words not only reflect the linguistic adaptability of English but also tell a story of **how cultures have connected**, influenced, and shaped one another over centuries, making English a truly global language.

56. What is the main focus of this reading passage?

    1) The English language is full of loanwords.

    2) Why the English reflect its global influences

    3) How several new words turned into the English language

    4) The stories told about the other nations conquered the English

57. How did the Norman Conquest of 1066 influence the English language?

    1) They adopted many Latin words into their language.

    2) They adopted many English words into their language.

    3) They introduced many Latin words into the English language.

    4) They introduced many French words into the English language.

58. According to the passage, which of these is **INCORRECT**?

    1) New words entered English through various means.

    2) People from France came to England and attacked the local people.

    3) The main channel through which new words got into English was by wars.

    4) Those new numerous loanwords can reflect the linguistic adaptability of English.

59. Which of these is the example of loan words from non-European languages that have become part of English?

    1) fresco
    2) algebra
    3) souvenir
    4) et cetera

60. The phrase "how cultures have connected" refers to _____
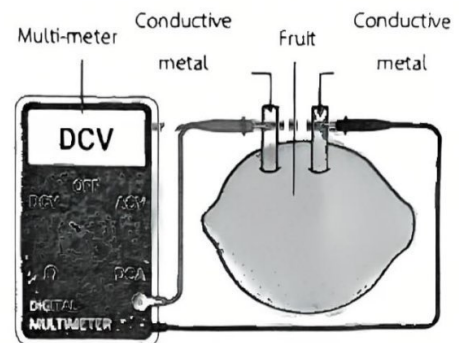
    1) the ways in which different cultures have interacted

    2) the connection between groups of people that occurs through various means

    3) the unique languages that groups of people use to communicate with each other

    4) the adaptability of language and culture that the English have derived from othernations.

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

BD M1 Science Entrance Exam Additional Questions

Read the given information and answer the questions 1 - 2

The experiment was to create a battery out of a fruit (lemons, limes, oranges, bananas) using carbon as the constant element and switching out various conductive metals (zinc, copper, iron) as the second element. For the experiment, students utilized a multimeter to measure the voltage of each fruit and metal combination. Their results were on the table.

Types of Fruits	Voltage	Conductor
Lemons	0.73	Zinc
	0.3	Iron
	0.1	Copper
Limes	0.84	Zinc
	0.36	Iron
	0.34	Copper
Oranges	0.76	Zinc
	0.31	Iron
	0.3	Copper

Types of Fruits	Voltage	Conductor
Bananas	0.8	Zinc
	0.37	Iron
	0.33	Copper

61. If you want a small flashlight that requires roughly 1.5 volts to be bright by using the least amount of fruit battery, which material should you choose?

1) Lemons and Copper

2) Oranges and Iron

3) Limes and Zinc

4) Bananas and Zinc

62. What is the dependent variable of this experiment?

1) Voltage

2) Conductor

3) Type of Fruit

4) Multi-meter

63. A scientist notices patterns in data from an experiment. Which scientific skill is primarily being used?

1) Inference

2) Observation

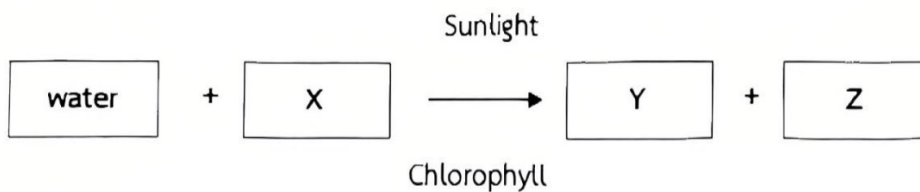3) Prediction

4) Experimentation

64. Mael went to a temple and noticed that the bell's sound was very loud and had a high pitch. If Mael wants to ring a bell with a quieter sound and lower pitch, which bell should he choose?

1) Ring a bigger bell with less force.

2) Ring a bigger bell with more force.

3) Ring a smaller bell with less force.

4) Ring a smaller bell with more force.
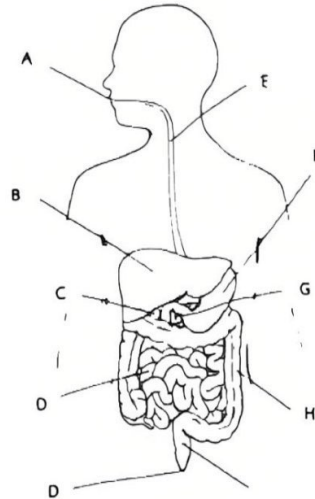
65. Which option best matches an animal's body structure with its way of life?

1) A camel has humps to store water for survival in the desert.

2) A frog has webbing between its toes to help it swim more efficiently.

3) A water monisa has a sponge-like, white cushion to absorb oxygen more effectively.

4) A penguin has black and white feathers to help regulate its body temperature and keep warmer.

66. Which option best represents the relationship between living and nonliving things in a habitat?

1) Squirrels live in trees.

2) Bees collect nectar from flowers.

3) Mynas perch on the backs of buffaloes.

4) Butterflies consume minerals by licking salt from halite.

67. This diagram below shows photosynthesis, which of these statements is X?

$$\text{water} + X \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} Y + Z$$

1) In energy metabolism, it is the most important source of energy in all organisms.

2) It covers about 71% of the Earth's surface, with seas and oceans making up most of its volume.

3) Most organisms, including plants, animals, fungi, algae, and most protists, need it for cellular respiration.

4) Its concentration in Earth's pre-industrial atmosphere since late in the Precambrian was regulated by organisms and geological features.

68. "This organ makes digestive juice, which mixes with bile and pancreatic juice to complete the breakdown of proteins, carbohydrates. and fats. Bacteria in this organ make some of the enzymes you need to digest carbohydrates. It moves water from your bloodstream into your GI tract to help break down food. It also absorbs water with other nutrients." Which organ is this?

1) Organ B

2) Organ D

3) Organ F

4) Organ H

69. Observe the following.

A. Leaving pieces of camphor in a room causes them to shrink over time.

B. Adding salt to water causes it to dissolve, leaving the water clear and colorless.

C. Spraying alcohol on the skin causes it to evaporate.

D. Adding ice to water causes it to melt, resulting in clear and colorless water.

Which options show changes in states of matter?

1) A B C

2) A B D

3) B C D

4) A C D

70. Four students use the following methods to separate substances:

A Separate salt solution from sand using sieving.

B Separate sand from salt solution by hand-picking.

C Separate salt solution from sand using filtration.
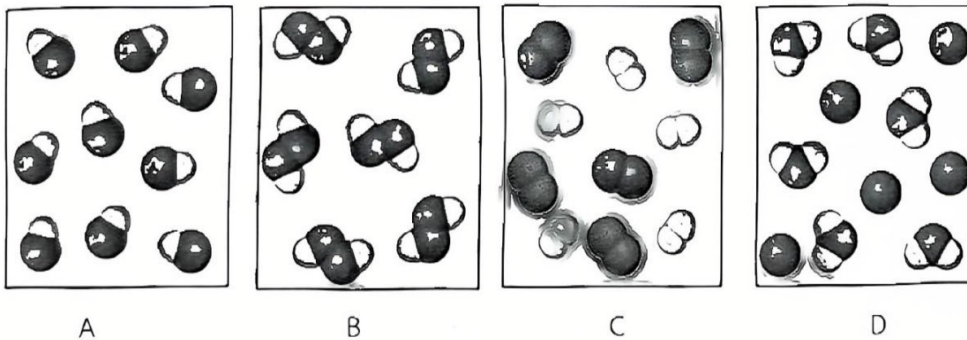
D Separate salt solution using evaporation.

Which 2 options represent the most appropriate method for separating salt from the mixture?

1) A and B

2) B and C

3) C and D

4) D and A

71. Three opaque bottles contain varying water levels. Dexter wants to determine which bottle holds the most water without opening the caps. He strikes the bottoms of the three bottles with the same amount of force and notices that each bottle produces a different sound. Which option indicates the bottle with the most water?

1) The bottle that produces the loudest sound after being struck.

2) The bottle that produces the softest sound after being struck.

3) The bottle that produces the highest pitch after being struck.

4) The bottle that produces the lowest pitch after being struck.

72. Which substance is a mixture?
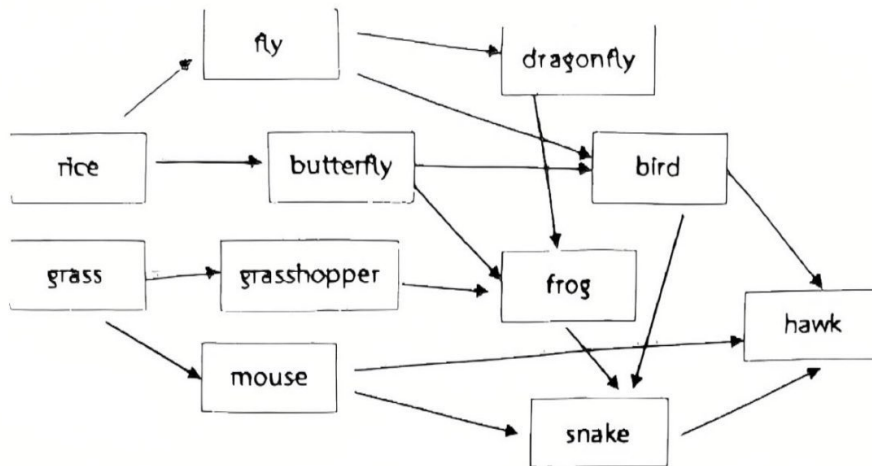

A   B   C   D

1) A and B

2) C and D

3) A, B and D

4) B, C and D

73. Which type of relationship among living organisms is referred to "mutualism"?

1) Ticks and dogs

2) Orchids and Makha

3) Clown fish and corals

4) Bacteria in the large intestine and humans

74. In a family, both the father and mother have short black hair. The father's hair is naturally straight, while the mother's wavy hair results from using a curling iron. Their daughter dyes her hair gray and also uses a curling iron, as does the grandmother. Which option best represents this family's genotype?

1) Both the father and mother have short hair.

2) Both the father and mother have black hair.

3) Both the grandmother and niece have gray hair.

4) The grandmother passed her wavy hair trait to her niece.

75. What is a likely effect of urbanization on biodiversity?

1) Increased population of all species

2) Loss of habitats for local species

3) Decrease in soil fertility

4) Increase in the number of predators

76. There are two foam balls, one with a positive charge and the other with a negative charge. When placed next to each other, but not in contact, which option correctly describes the electric force between the two balls?

1) Attraction

2) Repulsion

3) It could be either attraction or repulsion.

4) There is no electric force because the two objects are not in contact.

77. How do igneous rocks form?

1) Rocks $\rightarrow$ break $\rightarrow$ igneous rocks

2) Stones $\rightarrow$ harden $\rightarrow$ igneous rocks

3) Magma $\rightarrow$ cools $\rightarrow$ igneous rocks

4) Stones $\rightarrow$ compact $\rightarrow$ igneous rocks

78. From this food web, if population of flies decreases, which is correct?

1) Populations of rice will increase

2) Populations of birds will increase

3) Populations of grass will decrease

4) Populations of dragonflies will extinct

79. Team Red played tug of war with Team Blue. Each team had 3 players. Each player of Team Red exerted 500 N. How much force should each player of Team Blue exert so that they can win? and what is the resultant force of Team Blue?

1) 500 N and 1,500 N

2) 500 N and 1,800 N

3) 600 N and 1,500 N

4) 600 N and 1,800 N

80. The table shows the distances that a box moved on different types of floors when a force was exerted on it. Which floor gives the lowest friction force?

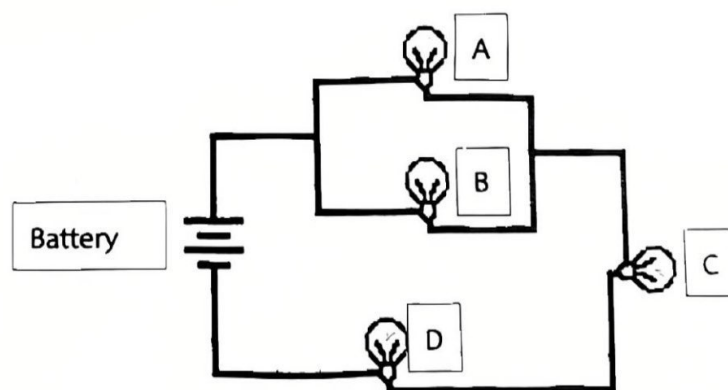| Options	Types of floor	How far the box moves
1)	A	2 m
2)	B	3 m
3)	C	2.5 m
4)	D	4 m

81. In a flexibility test, the results for pulling objects measuring at least 15 centimeters in length are as follows. Which object should be used as a rubber band?

Object	The lengths of objects (centimeters)	
	While pulling	After releasing
1)	16	16
2)	19	18
3)	15	15
4)	23	15

82. An iron bar with a mass of 3 kilograms and a piece of wood with the same mass of 3 kilograms are placed on the ground. Which option is correct?

1) The Earth does not exert gravitational force on either object.

2) The Earth exerts the same gravitational force on the iron and the wood.

3) The Earth exerts less gravitational force on the iron than on the wood.

4) The Earth exerts a greater gravitational force on the iron than on the wood.

83. If you have to choose one light bulb from a circuit and still make the other bulbs stay bright. Which bulb should you choose?
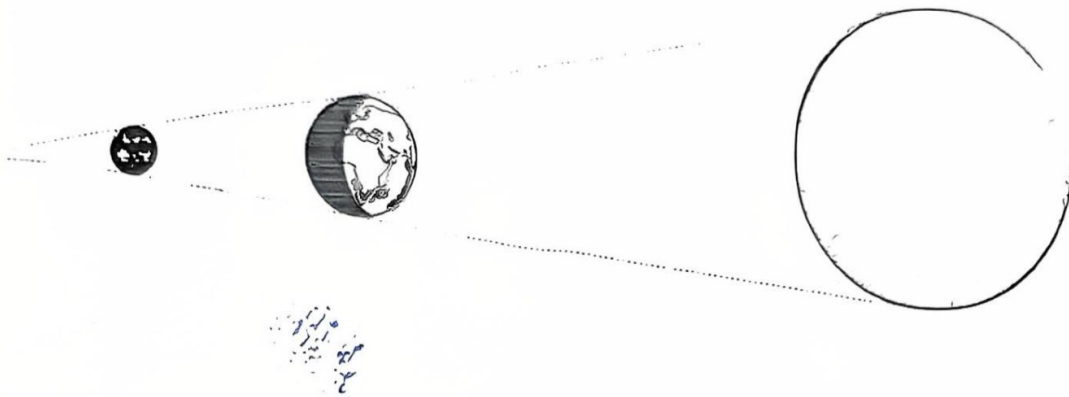

1) bulb A

2) bulb C

3) bulb A and bulb B

4) bulb C and bulb D

84. Which of these concepts causes white light to separate into a spectrum of colors?

   1) Reflection

   2) Absorption

   3) Diffraction

   4) Dispersion

85. "By observing mudstones along a shore, fossils of freshwater fish scales and dinosaur footprints are found in the same rock layer." Based on this situation, which option provides the correct summary?

   1) Both fossils are of the same age.

   2) Both fossils represent forms of life from the past.

   3) Shale rocks form when deposition occurs in a sea environment.

   4) Dinosaurs, as indicated by their footprints, evolved before freshwater fish.

86. What evidence can be found in sedimentary rocks to understand Earth's history?

   1) Fossils and layers

   2) Crystals and minerals

   3) Magnetic fields

   4) Lava flow patterns

87. Which soil property is NOT considered important to plant growth?

   1) Moisture retention

   2) pH and texture

   3) Color and density

   4) Presence of sand

88. What is one significant impact of space exploration?

   1) Discovery of new galaxies

   2) Exploration of ocean ecosystems

   3) Advancements in agricultural techniques

   4) Understanding the origins of the solar system

89. What causes this phenomenon?

1) The Sun blocking the Earth's shadow

2) The Moon passing through the Earth's shadow

3) The Earth passing through the moon's shadow

4) The Moon passes between Earth and the Sun

90. Which factor contributes to the formation of Earth's seasons?

1) The sun's distance from Earth

2) The tilt of the Earth's axis

3) The moon's gravitational pull

4) The rotation speed of Earth

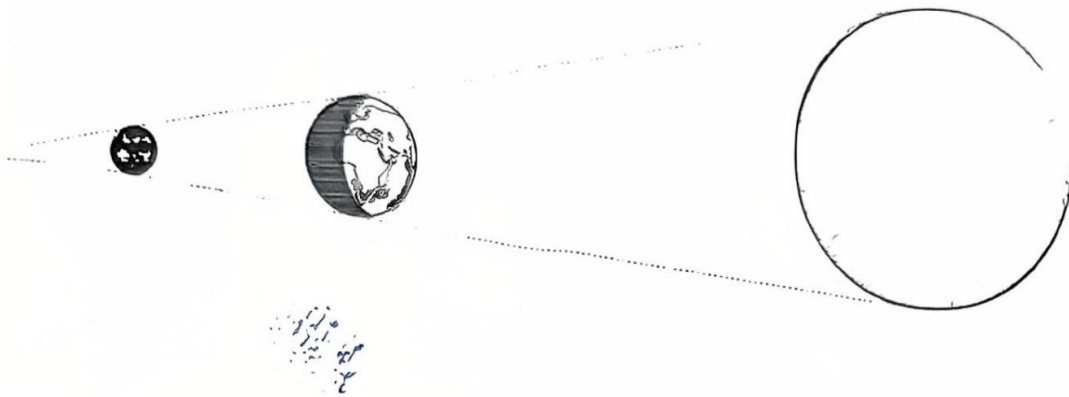**Part 3: Mathematics, 30 questions (Items 91 – 120), 4 points each.**

91. Dorothy 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

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92. A barrel contains 12.3 liters of water. Kaiden adds an additional 4,500 cubic centimeters to the barrel. He then uses the water from the barrel to equally fill 6 bottles. What is the capacity of each bottle in liters? (1 liter = 1,000 cubic centimeters)

1) 1.30

2) 2.05

3) 2.80

4) 6.55

93. Jayleen observes the number of guppies in her fish pond and notices changes each week. She records the data, categorizing the guppies by gender as follows:

Week	1	2	3	4	...
Male	3	10	17	24	
Female	62	54	46	38	

If the number of guppies continues to change consistently each week as shown in the table, how many male and female guppies will be in Jayleen's pond by the 8th week?

1) Male 45, Female 6

2) Male 45, Female 14

3) Male 52, Female 6

4) Male 52, Female 14

94. What is the result of $(200,000 - 15,050) + 2,000 \times 35$?

1) 74,950

2) 243,250

3) 254,950

4) 6,543,250

95. Kiaan and Keegan traveled to Veer's house, both starting their journeys at 9:30 a.m. Kiaan traveled by car and arrived at 11:45 a.m., while Keegan traveled by bus and arrived at 11:55 a.m. Which option provides the correct summary?

    1) Keegan traveled 70 minutes faster than Kiaan.

    2) Keegan traveled 1 hour and 10 minutes slower than Kiaan.

    3) The sum of travel time for Kiaan and Keegan was 480 minutes.

    4) The sum of travel time for Kiaan and Keegan was 280 minutes.

96. If 1 tablespoon can hold 12.5 grams of sugar, how many tablespoons are needed to scoop 1.5 kilograms of sugar into a container?

    1) 14

    2) 18.75

    3) 120

    4) 200

97. Mabel purchased 100 T-shirts at a cost of 50 baht each. The ratio of the cost price to the selling price is 20:27. If all the T-shirts are sold, what will be Mabel's profit percentage?

    1) 14

    2) 35

    3) 114

    4) 135

98. Paxton bought a phone with 15% discount off the labelled price. The discount amount was 300 baht. What was the labelled price?

    1) 1,000 baht

    2) 1,700 baht

    3) 2,000 baht

    4) 4,000 baht

99. Elliott and Whitley each have a cuboid box. The width, length, and height of Whitley's box are each twice the dimensions of Elliott's box. If the volume of Elliott's box is 112 cubic units, what is the volume of Whitley's box?

1) 824

2) 848

3) 872

4) 896

100. A marine farm owner breeds 872,340 fish and sells 254,000 of them to farmers in the district to support their livelihoods. The remaining fish are evenly distributed across 4 ponds. How many fish are there in each pond?

Based on the information provided, which of the following options is correct?

1) The operation of this question is $872{,}340 - (254{,}00 \div 4) = \square$.

2) Each pond consists of 152,085 fish.

3) There were 628,340 remaining fish after selling them to farmers.

4) The amount of fish in ponds is greater than the fish sold to farmers.

101. There are 5 ropes. The lengths of each of them are as follows:

A white rope is $\dfrac{8}{3}$ meters long.

A black rope is $2\dfrac{3}{5}$ meters long.

A red rope is $\dfrac{11}{6}$ meters long.

A blue rope is $2\dfrac{3}{4}$ meters long.

A green rope is $2\dfrac{7}{10}$ meters long.

When we order the ropes from longest to shortest, which statement is correct?

1) The blue rope is the longest.

2) The green rope is the shortest.

3) The red rope is the second longest.

4) The black rope is the third longest.

102 A box contains 100 balls. Rhett removed the same number of balls from the box each time. After the first removal. 93 balls remained. After the second removal. 86 balls were left. He continued this process repeatedly. How many balls were left in the box after the 7th removal?

    1) 42

    2) 49

    3) 51

    4) 58

103. A frog jumps a distance of 35 centimeters with each leap. If the frog continues jumping, how many jumps are needed for the total distance to be at least 50 meters?

    1) 14

    2) 15

    3) 142

    4) 143

104. A rectangle has diagonals that intersect at right angles, with only one diagonal being bisected by the other. What type of rectangle is this?

    1) Quadrilateral kite

    2) Square

    3) Rectangle

    4) Rhombus

105. Jericho plans to travel to New York with friends. They want to take photos at the Statue of Liberty for 1 hour and 40 minutes, then visit a museum for 2 hours. Afterward, they plan to spend 1 hour and 20 minutes at the zoo and shop for 50 minutes. Finally, they have dinner reserved at 4:30 p.m. If they want to be on time for dinner, what is the latest time they should arrive at the Statue of Liberty?

    1) 10:00 a.m.

    2) 10:30 a.m.

    3) 10:40 a.m.

    4) 11:40 a.m.

106. There were some oranges in a basket, and Estrella adds the same number of oranges each time. The following conditions apply:

After her 5th addition, there are 20 oranges in the basket.

After her 6th addition, there are 23 oranges in the basket.

After her 7th addition, there are 26 oranges in the basket.

How many oranges were originally in the basket before Estrella added any?

1) 2

2) 5

3) 8

4) 11

107. A dessert shop requires different amounts of time to prepare five types of desserts:

Pies: $2\frac{1}{3}$ hours

Pretzels: $\frac{12}{5}$ hours

Brownies: $\frac{5}{4}$ hours

Muffins: $2\frac{3}{4}$ hours

Cakes: $\frac{31}{12}$ hours

If the staff start making all types of desserts at the same time, which statement is correct?

1) Pies will be ready to serve first.

2) Muffins will be ready to serve the last.

3) Brownies will be ready to serve the third.

4) Pretzels will be ready to serve the second.

108. Knox rides a bike for 45 kilometers, which represents 30% of the total distance he plans to exercise. What is the total distance he needs to exercise?

1) 100

2) 150

3) 300

4) 450

109. A bamboo plant grows 30 centimeters per day. What is the minimum number of days it will take for the bamboo to reach over 11 meters in height?

1) 4
2) 36
3) 37
4) 40

110. Which quadrilateral has equal diagonals that bisect each other, and the intersection forms an angle that is not a right angle?

1) Rectangle
2) Rhombus
3) Trapezoid
4) Quadrilateral kite

111. Tom is currently 9 years older than Joe and Michael is 2 years younger than Joe. If Tom's age in the next 3 years is equal to the ages of Joe and Michael combined 5 years ago. What is Michael's current age?

1) 22
2) 24
3) 33
4) 36

112. What is the value of $\dfrac{5+6+7+8+...+61+62+63+64}{1+2+3+4}$?
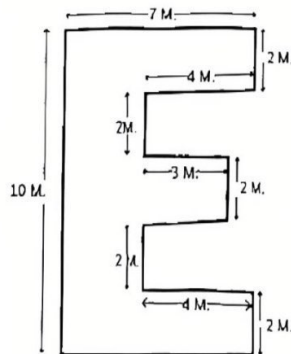
1) 200
2) 207
3) 300
4) 304

113. Owen opened a store selling bags and shoes. He marked the selling price of a bag with a 25% profit. However, when a friend came to buy, Owen gave a 10% discount, selling it for 900 baht. What was the cost price of the bag?

1) 500

2) 600

3) 700

4) 800

114. A rectangular storage room with a width of 2.5 meters and a length of 4 meters. If you put 400 cube boxes with a length of 50 centimeters on each side in the room, it will fit perfectly, without any space left. How many meters high is this storage room?

1) 2.5

2) 4

3) 4.5

4) 5

115. If you want to tile in a room that looks like the picture below, 1 floor tile per 1,600 square centimeters of area. How many floor tiles will be needed?
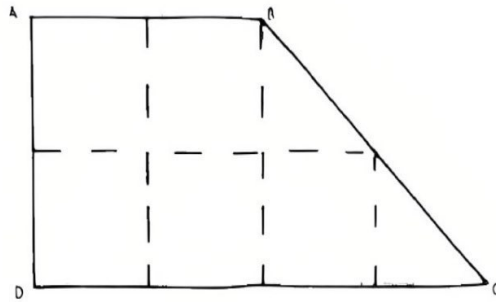

1) 250

2) 325

3) 350

4) 425

116. The trapezoid ABCD has an area of 384 square centimeters It is divided into squares and equilateral triangles as shown. How long is side CD?

1) 4

2) 8

3) 16

4) 32

117. A homeowner needs to cement the road in front of their house. The total cement mixture required is 72 buckets, with a mixing ration of cement : gravel : sand =1 : 3 : 5. How many buckets of sand are needed?
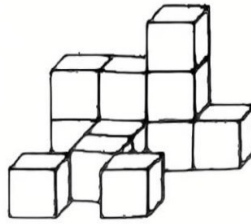
1) 8

2) 24

3) 27

4) 40

118. If you have both cats and chickens, and when counting their legs, there is a difference of 82 legs, and when counting heads, the number of cat heads exceeds the number of chicken heads by 1. How many cats and chickens are there in total?
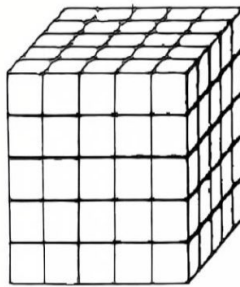
1) 79

2) 40

3) 39

4) 30

119 Given that each cube has a volume of 8 cubic centimeters. When 12 cubes are placed, it will be as shown. What is the total surface area of this arranged cubes?

1) 200

2) 100

3) 50

4) 48

120 There is $5 \times 5 \times 5$ square unit cube. Painted all sides in black. Then cut it into $1 \times 1 \times 1$ square unit pieces. How many cubes are there that are not painted black in total?

1) 24

2) 27

3) 36

4) 37