

NAFYAD PREPARATORY SCHOOL

Model Examination
Subject: Scholastic Aptitude Test

(2012/ 2013 A.Y)

Grade 12
Time: 2hr

SECTION ONE: Verbal Reasoning (Questions 1 - 35)

ANALOGY

DIRECTION: Identify the relationship that exists between each pair of words presented in capital letters and select the pair or word that best expresses a relationship similar to that expressed in the original capitalized pair.

1. LEAF is to TREE as
 (A) Foot is to Shoe (C) Mouse is to Computer
 (B) Pond is to River (D) Infant is to Baby
2. BELLIGERENT is to PEACEFUL as POWERFUL is to
 (A) Angry (B) Feeble (C) Aggressive (D) Curious
3. HYGROMETER is to HUMIDITY as TASEOMETER is to
 (A) Physical strain (B) Thickness (C) Speed (D) Mass
4. ERROR is to BLUNDER as KINDLE is to
 (A) Candle (B) Drown (C) Burn (D) Extinguish
5. GAS is to HYDROGNE as SOLID is to
 (A) Nitrogen (B) Copper (C) Oxygen (D) Fluid
6. ANALOGY : COMPARSION ::
 (A) Anatomy : Music (C) Anthology : Collection
 (B) Astronomy : Medicine (D) Anonymity : Fame
7. AMPERE : ELECTRIC CURRENT ::
 (A) Temperature : Watt (C) Resistance : Degree
 (B) Gallon : Liter (D) Potential : Volt

VERBAL CLASSIFICATION

DIRECTION: In each of the following questions, four words have been given out of which three are alike in some manner while the remaining one is different. Choose the word which is different from the rest.

8. Which one of the following words is different from the others?
 (A) Gallium (B) Silicon (C) Potassium (D) Zirconium
9. Which one of the following words is different from the others?
 (A) Platform (B) Park (C) Dock (D) Bus stand

ADVANCED VERBAL TEST—ANAGRAM

DIRECTION: The following questions are word puzzle based upon the rearranging of letters in words. Choose the word which is correct when rearranged as per the direction of the questions.

10. One of the groups of five letters below can be rearranged to spell out a five-letter English word. Find the word:

- (A) JEABY (B) LIROW (C) CANTU (D) PEOTM

11. Which one of the following is not an anagram of an animal?

- (A) OK DENY (B) HOG REP (C) SHE ELK (D) GARBED

ANTONYMS

DIRECTION: Choose the word that is most nearly opposite in meaning to the word in capital letters.

12. GREGARIOUS

- (A) Ambitious (B) Famous (C) Unsociable (D) Honest

13. HEARTEN

- (A) Misinform (B) Discourage (C) Engage (D) Dismember

SYNONYMS

DIRECTION: Choose the word that is most nearly similar in meaning to the word in capital letters.

14. AUTONOMOUS

- (A) Independent (B) Sudden (C) Famous (D) International

15. BELLIGERENT

- (A) silence (B) Hostile (C) peace (D) pain

LANGUAGE USAGE

DIRECTION: Complete the following sentences with their correct ending.

16. Even though the initial investigation pointed towards her

- A) the subsequent events proved that she was innocent.
B) the preceding events corroborated her.
C) the additional information confirmed her guilt.
D) the subsequent events established that she was guilty.

DIRECTION: Choose the one that has the closest meaning to the given sentences.

17. Richard will form a partnership with Rina in three days' time. Means

- A) Richard's partnership with Rina will come to an end recently.
B) Richard finds out the partners of Rina.
C) Richard will become a partner with Rina in less than two days.
D) Richard will become partner with Rina after two days.

SENTENCE COMPLETION

DIRECTION: Each question (15-18) below has one or two blanks; each blank indicates that something has been omitted. Beneath the sentence are four words or sets of words. Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

18. Although doctors have been this far successful at _____ the spread of Corona virus in the world, they are nonetheless concerned that _____ strains of the disease may yet arise.
(A) dismissing ... required (C) imperiling ... responsive
(B) obscuring ... indifferent (D) controlling ... virulent
19. The astronomer was _____ the evidence she received from the radio telescope because the data did not _____ her theory regarding the mass of the distant galaxy.
(A) disappointed ... substantiate (C) bolstered ... exaggerate
(B) intimidated by ... ignore (D) concerned about ... refute
20. Because I had witnessed the accident, one driver asked me to _____ his claim that the other driver had gone through a red light.
(A) collaborate (B) juxtapose (C) corroborate (D) estrange

READING COMPREHENSION

DIRECTION: Read passage one and passage two below carefully and answer questions (19-25) based on the information stated or implied in the passage.

Reading passage one

The assault on the purity of the environment is the price that we pay for many of the benefits of modern technology. For the advantage of automotive transportation we pay a price in smog-induced diseases; for the powerful effects of new insecticides, we pay a price in dwindling wildlife and disturbances in the relation of living things and their surroundings; for nuclear power, we risk the biological hazards of radiation. By increasing agricultural production with fertilizers, we worsen water pollution.

The highly developed nations of the world are not only the immediate beneficiaries of the good that technology can do that they are also the first victims of environmental diseases that technology breeds. In the past, the environmental effects which accompanied technological progress were restricted to a small and relatively short time. Modern air pollutions cover vast areas of continents: Radioactive fallout from the nuclear explosion is worldwide. Radioactive pollutants now on the earth surface will be found there for generations, and in case of carbon-14, for example thousands of years.

21. The passage emphasizes that modern technology
(A) is an unmixed blessing.
(B) has caused serious hazards to life.
(C) has produced powerful chemicals.
(D) has benefited highly developed nations.
22. According to the passage, the increasing use of fertilizers is responsible for
(A) abundance of food (C) disturbance in the ecological system
(B) water pollution (D) increase in diseases
23. The harmful effects of modern technology are
(A) widespread but short-lived (C) severe but short-lived
(B) limited and long-lasting (D) widespread but long-lived
24. The widespread use of insecticides has
(A) reduced the number of wild animals.
(B) eliminated diseases by killing mosquitoes and flies.
(C) caused imbalance in the relationship between living beings and their environment.

(D) caused biological hazards.

Reading Passage two

A solar eclipse occurs when the moon in front of the sun and hides at least some part of the sun from the earth. In a particular eclipse, the moon covers part of the sun; in an annular eclipse, the moon covers the center of the sun, leaving a bright ring of light around the moon. In a total eclipse, the sun is completely covered by the moon.

It seems rather improbable that a celestial body the size of the moon could completely block out the tremendously immense sun, as happens during a total eclipse, but this is exactly what happens. Although the moon is considerably smaller in size than the sun, the moon is able to cover the sun because of their **relative** distances from Earth. A total eclipse can last up to 7 minutes, during which time the moon's shadow moves across Earth at a rate of about 6 kilometers per second.

25. The passage primarily
- (A) Describes how long an eclipse will last.
 - (B) Gives facts about the moon.
 - (C) Explains how the sun is able to obscure the moon.
 - (D) Informs the reader about solar eclipses.
26. In which type of eclipse is the sun obscured in its entirety?
- (A) A partial eclipse
 - (B) An annular eclipse
 - (C) a total eclipse
 - (D) a celestial eclipse
27. According to the passage, how can the moon hide the sun during a total eclipse?
- (A) The fact that the moon is closer to Earth than the sun makes up for the moon's smaller size.
 - (B) The moon can only obscure the sun because of the moon's great distance from the earth.
 - (C) Because the sun is relatively close to Earth, the sun can be eclipsed by the moon.
 - (D) The moon hides the sun because of the moon's considerable size.
28. The word "**relative**" in the second paragraph could best be replaced by
- (A) familial
 - (B) infinite
 - (C) comparative
 - (D) paternal

LOGICAL and ANALYTICAL REASONING

DIRECTION: Question 27-28 need to be answered based on a statement followed by conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

29. **Statement:** Only good singers are invited in the conference. No one without sweet voice is a good singer.

Conclusion: I. All invited singers in the conference have sweet voice.

II. Those singers who do not have sweet voice are not invited in the conference.

- (A) Neither **I** nor **II** follows
- (B) Only conclusion **II** follows
- (C) Both **I** and **II** follow
- (D) Only conclusion **I** follows

30. **Statement:** No country is absolutely self-dependent these days.

Conclusion: I. A country can grow and produce enough if other countries produce on the basis of their countries' needs.

II. It is impossible to grow and produce all that a country needs.

- (A) Both **I** and **II** follow (C) Only conclusion **I** follows
(B) Only conclusion **II** follows (D) Neither **I** nor **II** follows

DIRECTION: Based on the given two premises, infer a valid conclusion.

31. Premise I: All non-combatants are members of armed force who does not fight in a war.

Premise II: No combatant is non-combatant.

Based on the given two premises, which one of the following conclusions can follow?

- (A) No combatant is a member of an armed force who does not actually fight in a war.
(B) All non-combatant who does not fight in a war are combatant.
(C) No member of an armed force is combatant.
(D) All members of an armed force who does not fight in a war are combatant.

DIRECTION: In this section, each question or group of questions is based on a passage or set of conditions. Read each question carefully and select the best answer from the given options.

32. *When workers do not find their assignments challenging, they become bored and so achieve less than their abilities would allow. On the other hand, when workers find their assignments too difficult, they give up and so again achieve less than what they are capable of achieving. It is, therefore, clear that no worker's full potential will ever be realized.*

Which one of the following is an error of reasoning contained in the argument?

- (A) Mistakenly equating what is factual and what is merely possible.
(B) Assuming without warrant that a situation allows only two possibilities.
(C) Depending on the ambiguous use of a key term.
(D) Confusing the coincidence of two events with a causal relation between the two.

33. *By the time they reach adulthood, most people can perform many different activities involving motor skills. Motor skills involve such diverse tasks as riding a bicycle, threading a needle and cooking a dinner. What all these activities have in common is their common dependence on precision and timing of muscular movement.*

This paragraph best supports the statement that:

- A) Threading a needle is a precise motor skill.
B) Children perform fewer motor activities in a day than adults do.
C) Most adults have not refined their motor skills.
D) Refined motor skills are specifically limited to adults.

Direction: Question 34- 35 are based on the following information. Read the information carefully and answer the following questions.

Jennifer, Joe, Janet, Jane, Jack, Jason, Jemal, and Jim sit around a square table—two on each side. There are three ladies who do not sit next to each other. Jason is between Jim and Joe. Janet is between Jack and Joe. Jane who is a lady member is second to the left of Jason. Joe who is a male member sits opposite to Jennifer, a lady member. There is a lady member between Joe and Jack.

34. How many persons sit between Jemal and Zelalem?
 (A) 4 (B) 2 (C) 3 (D) 1
35. Who sits third to the right of Janet?
 (A) Jennifer (B) Jane (C) Jason (D) Jim

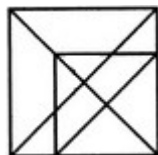
SECTION TWO: Quantitative Reasoning (Question 36 - 60)

DIRECTION: Solve each of the following problems given in questions 36-55 below and select the best answer from the given alternatives.

36. Find the value of X in the following sequence.
 8, 13, 21, X, 55, 89, 144...
 (A) 29 (B) 34 (C) 45 (D) 39
37. The population of a town increased from 175000 to 262500 in a decade. The average percent increase of population per year is:
 (A) 4.37 % (B) 5% (C) 6% (D) 8.75%
38. The sum of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?
 (A) 4 years (B) 8 years (C) 10 years (D) 12 years
39. What is the value of X in the following sequence?
 3, 6, 12, 24, 48, 96, X,...
 (A) 192 (B) 128 (C) 160 (D) 180
40. The average weight of 16 boys in a class is 50.25 kg and that of the remaining 8 boys is 45.15 kg. Find the average weights of all the boys in the class.
 (A) 49.25 kg (B) 47.55 kg (C) 48 kg (D) 48.55 kg
41. Find the number of terms in an A.P. in which $a_1=5$, $d=25$ and $a_n=130$.
 (A) 8 (B) 7 (C) 6 (D) 5
42. What number should replace X in the following sequence?
 30, 27, 24, X, 18, 15, 12, ...
 (A) 19 (B) 21 (C) 23 (D) 20
43. Find the value of X in the following sequence.
 4, 6, 9, 13, 18, 24, X
 (A) 45 (B) 35 (C) 31 (D) 40
44. Which one of the following numbers is different from the others in the group?
 (A) $\frac{1}{10}$ (B) $\frac{50}{500}$ (C) $\frac{70}{700}$ (D) $\frac{50}{100}$
45. Choose the number which is different from the others?
 (A) 27 (B) 64 (C) 125 (D) 144
46. Find the value of X in the following analogy:
 6 : 40 :: 9 : X
 (A) 85 (B) 81 (C) 45 (D) 71
47. What number should replace X in the following analogy?
 9 : X :: 8 : 62
 (A) 81 (B) 72 (C) 79 (D) 83
48. When a plot is sold for birr 18,700, the owner losses 15%. At what price must that plot be sold so as to gain 15%?

- (A) 25,300 birr (B) 25,800 birr (C) 22,500 birr (D) 21,000 birr

49. Find the number of triangles in the given figure.



- (A) 16 (B) 19 (C) 21 (D) 23

50. A trader mixes 26 kg of rice at birr 20 per kg with 30 kg of rice of other variety at birr 36 per kg and sells the mixture at birr 30 per kg. What is the percentage of his profit?

- (A) 10 % (B) 8 % (C) 5 % (D) 15 %

Quantitative Comparison

Direction: Questions 51-53 consists of two quantities, one in column A and one in column B. Compare the two quantities and answer the questions by choosing the alternative that best explains the relationship between “Column A” and “Column B”.

51. Compare the two quantities.

Quantity A	Quantity B
$9(3+24)$	$(9 \times 3) + (9 \times 24)$

- (A) Quantity A is greater than quantity B.
 (B) Quantity A is less than quantity B.
 (C) Quantity A is equal to quantity B.
 (D) The relationship cannot be determined from the information given.

52. Compare the two quantities.

Quantity A	Quantity B
$2/7 - 1$	$1/3 - 1$

- (A) Quantity A is greater than quantity B.
 (B) Quantity A is less than quantity B.
 (C) Quantity A is equal to quantity B.
 (D) The relationship cannot be determined from the information given.

53. Compare the two quantities.

Quantity A	Quantity B
2×7.39	$739/4$

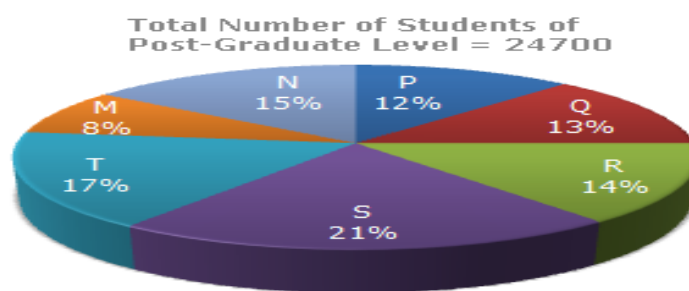
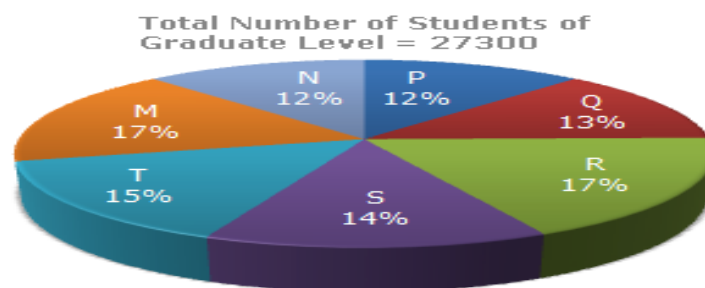
- (A) Quantity A is greater than quantity B.
 (B) Quantity A is less than quantity B.
 (C) Quantity A is equal to quantity B.
 (D) The relationship cannot be determined from the information given.

Data Interpretation

Direction: Questions 54-60 below are based on the hypothetical data given in the table below. Answer each question based on the data.

The following pie-charts show the distribution of students of graduate and post graduate levels in seven different institutes in a town.

Distribution of students at graduate and post-graduate levels in seven institutes:



54. What is the total number of graduate and post-graduate level students in institute R?
 (A) 8320 (B) 7916 (C) 9116 (D) 8099
55. How many students of institutes of M and S are studying at graduate level?
 (A) 7516 (B) 8463 (C) 9127 (D) 9404
56. What is the ratio between the number of students studying at post-graduate level from institutes S and the number of students studying at graduate level from institute Q?
 (A) 13 : 19 (B) 21 : 13 (C) 13 : 8 (D) 19 : 13

The following table gives the percentage of marks obtained by seven students in six different subjects in an examination.

Table: The numbers in the brackets give the maximum marks in each subject.

Students	Mathematics (150)	Chemistry (130)	Physics (120)	English (100)	Biology (60)	Computer science (40)
Emanuel	90	50	90	60	70	80
Walter	100	80	80	40	80	70
Richard	90	60	70	70	90	70
Emily	80	65	80	80	60	60
Sonia	80	65	85	95	50	90
Daniel	70	75	65	85	40	60
David	65	35	50	77	80	80

57. The number of students who obtained 60% and above marks in all subjects is?
 (A) 1 (B) 2 (C) 3 (D) 4
58. What was the aggregate of marks obtained by Richard in all the six subjects?
 (A) 409 (B) 419 (C) 429 (D) 449
59. In which subject is the overall percentage the best?
 (A) Mathematics (B) Chemistry (C) Physics (D) Biology
60. What is the overall percentage of David?
 (A) 52.5% (B) 55% (C) 60% (D) 63%

N.P.S By Solomon Getachew