

HIGHER HEIGHT COLLEGE

ENTRANCE EXAMINATION 2021 / 2022 ACADEMIC SESSION

SUBJECT: MATHEMATICS CLASS: J.S.S THREE DURATION: 1HR 30mins

Choose the correct answer from options a – d in this section

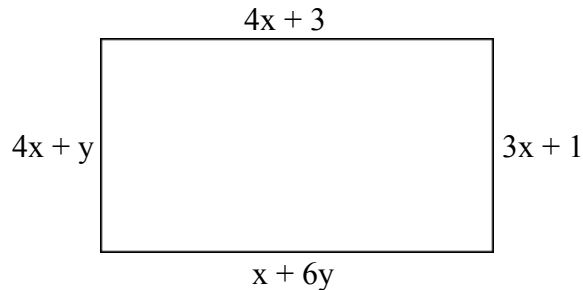
1. Solve the equation $\frac{x-3}{6} = \frac{x-5}{4}$ (a) 3 (b) 5 (c) 8 (d) 9
2. Expand $(x + 2)(x - 5)$ (a) $x^2 + 3x - 10$ (b) $x^2 - 3x - 10$ (c) $x^2 + 4x + 20$ (d) $x^2 + 5x - 10$
3. Find the mean of the following set of numbers: 5, 4, 2, 3, 7, 6, 1
(a) 9 (b) 8 (c) 6 (d) 4
4. Find the square root of $6\frac{1}{4}$ (a) $\frac{1}{5}$ (b) $\frac{5}{2}$ (c) $\frac{2}{5}$ (d) 1
5. What is the difference between the LCM and HCF of 24, 36 and 40?
(a) 200 (b) 260 (c) 300 (d) 356
6. Calculate the simple interest on N12000 for $7\frac{1}{2}$ years at 6% per annum.
(a) N54000 (b) N540 (c) N5400 (d) N54
7. Find the smallest number by which 60 must be multiplied to be a perfect square
(a) 2 (b) 3 (c) 10 (d) 15
8. Simplify $(2\frac{1}{4} - 1\frac{2}{3}) \times 1\frac{5}{7}$ (a) 1 (b) $\frac{5}{7}$ (c) $\frac{2}{3}$ (d) $\frac{1}{4}$
9. Find the coefficient of x in the expansion of $(x + 2)(x + 7)$ (a) 1 (b) 2 (c) 7 (d) 9
10. What is the multiplicative inverse of $-\frac{4}{6}$? (a) $-\frac{3}{2}$ (b) $-\frac{2}{3}$ (c) $\frac{2}{3}$ (d) $\frac{3}{2}$
11. If x is directly proportional to y and x = 4 when y = 12. Find the value of x when y = 24
(a) 4 (b) 8 (c) 12 (d) 16
12. The sum of two numbers is 95. Their difference is 19. What are the numbers?
(a) 37 and 56 (b) 38 and 57 (c) 40 and 55 (d) 39 and 56
13. What is the range of the following set of numbers 20, 30, 25, 24, 40, 50, 70, 80, 90?
(a) 20 (b) 70 (c) 50 (d) 30
14. Use table to find the value of $\sin 71.190$ (a) 0.005 (b) 0.9511 (c) 0.9466 (d) 0.9164
15. Find the amount on N16000 for $3\frac{1}{2}$ years at 6% per annum.
(a) N18660 (b) N9660 (c) N12060 (d) N15600
16. Find the product of median and mode of the given set of numbers: 4, 4, 8, 12, 14, 16, 18
(a) 12 (b) 20 (c) 48 (d) 30
17. Factorise $5m - mp - 5n + pn$ (a) $(p + 5)(5 - n)$ (b) $(m - n)(p + 5)$ (c) $(5 - p)(m - n)$ (d) $(5m - mp)(5n - 5p)$
18. Find the missing number:
$$\begin{array}{r} 1\ 0\ 1\ 0\ 1 \\ +\ 1\ 1\ 1\ 0 \\ \hline 1\ 0\ 0\ *1\ 1 \end{array}$$
 (a) 0 (b) 1 (c) 2 (d) 4
19. Find the reciprocal of 40 (a) 0.04 (b) 0.025 (c) 0.25 (d) 0.4

20. Express 0.00103 in standard form (a) 1.003×10^{-5} (b) 1.03×10^{-3} (c) 1.003×10^{-6} (d) 1.003×10^{-3}
21. Simplify: $y^0 \times y^5 \times y^{-3}$ (a) y^2 (b) y^{-15} (c) y^{-2} (d) y^8
22. I subtract 17 from a certain number and then divide the result by 5. The result is 3. What was the original number? (a) 8 (b) 25 (c) 32 (d) 22
23. Change 6.413×101 to ordinary form (a) 641.3 (b) 6413 (c) 64.13 (d) 6413.1
24. Calculate the compound interest on N1000 for 1 year at 20% interest rate per amount. (a) N200 (b) 350 (c) N440 (d) 500
25. How many days are there from May 25 to June 10? (a) 30 days (b) 16 days (c) 15 days (d) 14 days
26. A ladder 8m long leans against a vertical wall, making an angle of 60° with the horizontal ground. What is the distance between the foot of the ladder and the wall. (a) 12m (b) 10m (c) 8m (d) 4m
27. Make h the subject of formula in $V = \frac{3}{4}r^2h$ (a) $h = \frac{3v}{4r^2}$ (b) $h = \frac{4v}{3r^2}$ (c) $h = \frac{4r^2}{3v}$ (d) $h = \frac{4r}{3r^2}$
28. Which of the following statement is true? (a) $0 > 8$ (b) $142 < 3$ (c) $2 > -1 + 3$ (d) $5 < 12$

THEORY

Instruction: Answer any 3 questions

1. (a) A man borrowed N500 for 3 years at 5% compound interest. He pays N120 at the end of each year. Find how much he still owe at the end of the third year.
2. (b) Simplify: $\frac{x+4}{2x-5} = \frac{2}{3}$
 - (a) Use the elimination method to solve $5a - 2b = 14$ and $2a + 2b = 14$
 - (b) The sides of the rectangle below are given in m, find x and y



3. (a) If y varies directly as x and x = 4 where y = 12
 - (i) Find the relationship between y and x
 - (ii) Find x when y = 18
 - (iii) Find y when x = 2
- (b) A mathematics teacher gave his class the following marks out of a test:
 5, 7, 3, 5, 6, 9, 5, 7, 3, 4, 8, 5, 2, 8, 6, 6, 5, 8, 4, 5, 7, 3.
 Use the data above to:
 - (i) Prepare a frequency table
 - (ii) Calculate the mean score
 - (iii) Find the mode
- (c) Factorise $x^2 - 2x - 15$

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ENTRANCE EXAMINATION 2021/2022 ACADEMIC SESSION

SUBJECT: ENGLISH LANGUAGE CLASS: J.S.S. THREE

Instruction: Answer all questions

COMPREHENSION PASSAGE (SECTION A)

Read the passage carefully and choose the correct answer from option A - D.

Diet is the total amount of food consumed by a person. Nutritious food contains all the essential nutrients-proteins, fats, carbohydrates, vitamins and minerals. A balanced diet should contain all these in the correct proportions and sufficient quantity. The word diet implies a particular intake of food for health or weight-management reasons. Every person or culture has some preferences or taboos about food due to infant morality, personal taste or religion. Nutrition is the provision of materials (in the form of food) to an organism to support its life. Food is a thing which, when eaten and digested, can be used by the body to provide energy, or substances that help in body building and repair or in the preservation of health. Food includes many things we eat and drink. It does not include alcohol, cigarettes and drugs.

Foods may be grouped into types according to whether they are a) solid or liquid, local or imported, cereals, vegetables or fruits, and eaten raw or cooked. Solid foods are yam, rice, bread and beans. Examples of liquid food are milk, cocoa drinks and fruit juices. Local foods can be sourced domestically e.g. sweet potato, guinea corn, yam and beans. Imported foods are stockfish, milk, pasta and cheese. Foods that can be eaten raw are lettuce, pawpaw, cucumber and carrot. Those that can be cooked are yam, rice, meat, fish and potato.

Foods can also be grouped into classes based on the chemical composition of the food and the nutrients present in the food. Accordingly, foods are grouped into six classes, namely carbohydrates, proteins, fats and oils (or lipids), vitamins, mineral salts and water. Carbohydrates are composed of carbon, hydrogen and oxygen and the ratio of hydrogen to oxygen in carbohydrates is 2:1. Carbohydrates are energy- giving foods. Examples are garri, yam, rice and maize. Proteins comprise carbon, hydrogen, oxygen and nitrogen atoms. They may also contain sulphur and phosphorus. Proteins are used in body-building, and growth and repair of worn-out cells. Examples are meat, fish, milk, yoghurt and beans. Fats and oils are composed of carbon, hydrogen and oxygen atoms. Fats are solid at room temperature while oils are liquid at room temperature, but their chemical compositions are similar. They are energy-giving foods. Examples are animal fats, palm oil, vegetable oil, olive oil and margarine.

Vitamins are required by the body in small amounts. Examples are vitamins A, B, C, D, E and K. When present, the body is healthy. When each vitamin is absent, the body suffers from a specific disease, unique to the absence of that vitamin. The diseases that arise when vitamins are absent are called vitamin-deficiency diseases. A poor diet may have a serious impact on a person's health, causing diseases such as scurvy, kwashiorkor, obesity, diabetes and heart conditions. It is best to eat a wide variety of foods, especially fresh, unprocessed foods.

QUESTIONS

1. Which word in the first paragraph mean the same as eaten? A. balanced B. consumed C. proportion D. diet
2. According to the passage, which of the following does not contain nitrogen atom? A. proteins B. fats and oils C. meat D. beans
3. The word unique as used in the fifth paragraph means A. inclusive B. matchless C. common D. replaceable
4. Which of the following is not supported by the passage? A. Local foods can be sourced internationally B. A poor diet may have a danger effect on a person C. A balanced diet should have vitamins D. Alcohol is not an example of food.
5. Which of the following food sources responsible for the repair of damaged cells? A. proteins B. carbohydrates C. vitamins D. fats and oils

SECTION B

Choose from the options lettered A to D the vocabulary that best completes the sentence

6. Cholera is the most dreadful-- ----- I know. A. attack B. sickness C. disease D. disturbance
7. Avian influenza (Bird flu) is a/an ----- disease. A. dangerous B. Infectious C. relapsing D. contaminated
8. A 10% was given to my friend when he bought a radio set. A. balance B. change C. discount D. bonanza
9. My cousin is the son of my..... A. brother B. nephew C. uncle D. sister
10. My mother took ill last year but she is -----A. convalescing B. convulsing C. resuscitating D. rehabilitating

SECTION C

From the option lettered A-D, choose the one that is most opposite in meaning to the underlined word.

11. Tolu is diligent but her friend isA. conceited B. polite C. indolent D. modest
12. My father is.....by nature but his brother is stingy. A. calm B. generous C. thoughtful D. thrifty
13. We jubilated from dusk to.....when Bola Tinubu was declared the winner of the election. A. dark B. dawn C. day D. night
14. The banker should be able to distinguish between..... and fake notes. A. crisp B. good C. genuine D. correct
15. Foodstuffs used to be very cheap but they are now.....A. scarce B. expensive C. plentiful D. common

SECTION D

From the option lettered A-D, choose the one that is most nearest in meaning to the underlined word.

16. The taxi driver intentionally splashed water on the lady. A. mistakenly B. deliberately C. wickedly D. unknowingly
17. The new Principal was fired last month. A. condemned B. sacked C. shot D. strict
18. The criminal was subjected to serious interrogation. A. beating B. torture C. hardship D. questioning
19. Tunde is at the peak of his career. A. bottom B. top. C. middle D. finest
20. Esther told me her sister was timid by nature. A. shy B. cool C. cool headed D. snobbish

SECTION E

From the option lettered A-D, choose the word that best completes each sentence

21. He was driving to his office when he.....the accident. A. sees B. seen C. saw D. seeing
22. Who is the author of the book titled the "Hard Way?" A. Maruf Asumade B. Maroof Asudemade C. Abdumaruf Asunmadeke D. Almaroof Osamede

23. "..... I can see that you've got well now. You're recuperating fast." Who said the above statement? A. Mr. Benjy B. Mrs. Benjy C. Dr. Emeka D. Simisola
24. To whom was the above statement said? A. Mrs. Benjy B. Simisola C. Bala D. Kunmi
25. Everyday my mother always.....up at 5:00 a.m. A. woken B. wake C. waking D. wakes
26. "The boy is as stubborn as a goat" The statement is as an example of..... A Metaphor B. Simile C. Personification D. Irony
27. The man gave his friend.....which is wrong. A. an information B. informations C. some information D. many information

SECTION F

From the word letter A to D, choose the word that has the same sound as the one represented below:

- | | | | | |
|------------------|-----------|------------|-------------|------------|
| 28. <u>cough</u> | A. pirate | B. phantom | C. property | D. Victory |
| 29. /a: / | A. made | B. mad | C. mark | D. mat |
| 30. /I: / | A. ice | B. quay | C. nurse | D. ink |

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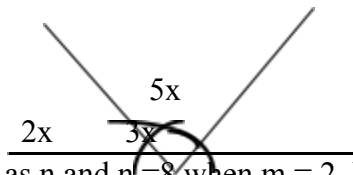
SUBJECT: MATHEMATICS CLASS: J. S. S THREE DURATION: 2HOURS

NOTE: 1HR 20MINS FOR THE THEORY AND 40MINS FOR THE OBJECTIVES

Choose the correct answer from options a – d in this section

1. Evaluate $\frac{1}{2} + \frac{3}{4}$ of $\frac{2}{5} \div 1\frac{3}{5}$ (a) $\frac{5}{6}$ (b) $\frac{11}{16}$ (c) $2\frac{1}{3}$ (d) $\frac{2}{5}$
2. If one-tenth of a number is added to 2, the result is half of that number, find the number
(a) 5.0 (b) 6.5 (c) 6.6 (d) 8.2
3. Arrange the following fractions in ascending order $\frac{1}{2}, \frac{3}{10}, \frac{7}{10}, \frac{2}{5}$ (a) $\frac{1}{2}, \frac{2}{5}, \frac{7}{10}, \frac{3}{10}$
(b) $\frac{1}{2}, \frac{3}{10}, \frac{2}{5}, \frac{7}{10}$ (c) $\frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}$ (d) $\frac{7}{10}, \frac{2}{5}, \frac{3}{10}, \frac{1}{2}$
4. Express 35% as a fraction in its simplest form (a) 33 (b) 0.35 (c) 330 (d) 30
5. Convert the LCM of 24 and 30 to a binary number (a) 11000_2 (b) 1111000_2 (c) 111000_2
(d) 110000_2
6. Find the smallest number by which 24 can be multiplied to give a perfect square (a) 4 (b) 5
(c) 6 (d) 3
7. Two boys share 35 notebooks in the ratio 2 : 3. How many notebooks does each get? (a) 22, 13
(b) 21, 14 (c) 14, 21 (d) 13, 22
8. Factorize $5xyz + 15xyp$ (a) $3xy(z + 3p)$ (b) $4xy(z + 3p)$ (c) $5xy(z + 3p)$ (d) $5x(yz + 3p)$
9. Find the time N400 will yield an interest of N40 at the rate of 5% per annum (a) 5years
(b) 4 years (c) 3 years (d) 2 years
10. Correct 58.7952 to 2 decimal places (a) 58.78 (b) 58. 79 (c) 58.80 (d) 58.89

11. Find the multiplicative inverse of -0.5 (a) 2.0 (b) 0.5 (c) -2.0 (d) -0.5
12. How many weeks are there in 504 hours (a) 24 (b) 21 (c) 11 (d) 3
13. The product of three numbers is 180. If two of the numbers are the same. Find the third number (a) -15 (b) 5 (c) 25 (d) 30
14. Subtract 10101_2 from 1011010_2
(a) 101101_2 (b) 111101_2 (c) 101111_2 (d) 1000101_2
15. What is the value of x in the figure below (a) 10° (b) 18° (c) 30° (d) 40°



16. If m varies inversely as n and $n=8$ when $m=2$. Find the formula connecting m and n
(a) $m = \frac{16}{n}$ (b) $m = 4n$ (c) $m = \frac{3n}{16}$ (d) $m = \frac{n}{16}$
17. The population of a country was calculated to be 4, 596, 243. Find the approximation to 2 significant figures
(a) 4596200 (b) 4600000 (c) 469600 (d) 5000000
18. Calculate the compound interest on N1000.00 for 1 year at 20% interest rate per annum.
(a) N200.00 (b) N350.00 (c) 440.00 (d) N500.00
19. Ade made a profit of 22% on an article he bought for N22.00. how much did he sell the article (a) N26.84 (b) N30.00 (c) N26.00 (d) N44.00
20. If one-fifth of church congregations are men, what percentage of the church are women?
(a) 70% (b) 20% (c) 80% (d) 20%
21. Find the product of $2\frac{1}{2}$ and -4, and divide the result by $-1\frac{1}{3}$
(a) -10 (b) $-\frac{4}{3}$ (c) $7\frac{1}{2}$ (d) $-\frac{5}{2}$
22. 18 farmers can cultivate a farmland in 20 days. How many days will it take 6 farmers to cultivate the same farmland (a) 10 days (b) 20 days (c) 36 days (d) 60 days
23. The reciprocal of 0.025 is (a) 0.04 (b) 40 (c) 0.4 (d) 4
24. What is the sum of 11101_2 , 1101_2 and 101101_2 ?
(a) 1101111_2 (b) 1010111_2 (c) 1001010_2 (d) 1000110_2
25. The factors of $x^2 + 2x - 8$ are
(a) $(x + 6)$ and $(x - 2)$ (b) $(x - 2)$ and $(x + 4)$ (c) $(x + 3)$ and $(x - 5)$ (d) $(x + 1)$ and $(x - 7)$
26. The mean age of five students whose ages are 8, x, 13, 12 and 10 is 10. Find the value of x in years (a) 6 years (b) 7 years (c) 8 years (d) 9 years
27. Divide 2.646 by 0.9 and give your answer to 2 d.p
(a) 2.094 (b) 2.9 (c) 2.94 (d) 2.904

Use the table below to answer question 28 – 30, for $y = 2 + 3x$

x	0	1	2	3	4
y	2	m	8	n	14

28. Calculate the value of m^3 (a) 25 (b) 65 (c) 125 (d) 150
 29. Evaluate $m + n$ (a) 12 (b) 16 (c) 18 (d) 25
 30. If x is 5, calculate the value of y (a) 17 (b) 18 (c) 19 (d) 20

THEORY (*Answer any three*)

- (a) Convert 11011.110_{ten} to base ten
 (b) Find the compound interest on N45000 for 3 years at 10% per annum.
 (c) When 1 is subtracted from three times a certain number and then divided by 5, the result is the same as when 1 is added to the number. What is the number?
- (a) If $D \propto t$ and $D = 30$ and $t = 12$. Find
 (i) the relationship between D and t
 (ii) D when $t = 10$ (iii) Find t when $D = 14$
 (b) Evaluate $111\ 111_2 \div 11_2$
 (c) Factorize $2d^3 + d^2(3d - 1)$
- (a) If $\theta \propto \frac{1}{n}$ and $\theta = 72$ when $n = 5$. Find:
 (i) θ when $n = 12$ (ii) n when $\theta = 8$
 (b) Evaluate and find z, $\frac{z+2}{2} - \frac{z-1}{3} = \frac{z}{4}$
 (c) Factorize: $y^2 - 7y - 8$
- Mrs Mohammed obtained a loan of N12 million from a bank at 10% per annum to buy a house. How much does she owe at the end of 4 years, if she repays N1350 000 at the end of each year.

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SUBJECT: ENGLISH LANGUAGE CLASS: J. S. S THREE DURATION: 2 HOURS

NOTE: 1HR 20MINS FOR THE THEORY AND 40MINS FOR THE OBJECTIVES

Choose the correct answer from options a – d in this section

COMPREHENSION

Read the following passage carefully and answer the questions that follow:

This beautiful plant, Earth, which God has given us is now a source of worry for many people. The relevant question to ask is, Are we taking enough care of something that sustains us and

also all the animals and plants that God created in so not. 'We need to take good care of the planet so that we and all forms of life on earth will not die and our planet becomes as dead and arid as the moon. It is we human beings who are destroying this earth, despite the fact that it supports us all and will continue to support us all for millions and millions of years - provided we treat it well.

We cut down large areas of forest to build good roads and beautiful houses. But we hardly realize that our planet suffers for it. Why? Unless we plant more trees, we will not have enough oxygen to breathe. The destruction of forests will have a number of harmful effects; there will be very little rain; there will, also, be no trees to stop the strong winds from blowing off the roofs of our houses.

It has been discovered that the harmful fumes given off by petrol, diesel vehicles and machines cause rain that contains large quantities of these harmful substances. Such acid rain interferes with the growth of plants and harms our lungs.

Farmers now realize that chemical fertilizers are harmful, especially those that contain nitrates so, they are now cutting down their uses. But what are we doing about aerosols such as insect sprays, hair sprays and deodorants, which contain the gases that destroy the ozone layer? This layer protects life on earth from the harmful effects of the sun's rays. We must therefore not bite the finger that feeds us. We must endeavour to plant many more trees so that we can leave behind a healthy planet where future generations will live happily.

QUESTIONS

1. According to the passage, the earth should be taken care of so that _____ a. it will become more and more beautiful (b) our lives and other forms of life will be preserved (c) God can be happy with every one of us (d) It will no longer be a source of worry
2. The earth will support everyone of us for a very long time if (a) we live our lives well (b) there is plenty of rain (c) we take care of it well (d) we cut down plenty of trees
3. According to the passage, we will have enough oxygen to breathe in if we (a) build good roads and beautiful houses (b) cut down large areas of forest (c) take care of our surroundings (d) plant very many trees
4. We learn from the passage that trees can _____ (a) protect human beings from the intense heat of the sun (b) allow the roofs of houses to be blown off (c) enable human beings to build good houses (d) prevent the rain to fall in its season
5. "...these harmful substances" refers to _____ (a) petrol engines (b) diesel vehicles (c) machines (d) fumes
6. as dead and arid as the moon. The figure of speech in this expression is (a) simile (b) personification (c) metaphor (d) hyperbole
7. Farmers reduce the use of chemical fertilizers because they are (a) very expensive (b) unaffordable (c) harmful (d) not valuable
8. Life on earth is protected from the harmful effects of the sun's rays by (a) ozone layer

(b) insect sprays (c) hair sprays (d) deodorants and aerosols

9. In order to enjoy the earth and leave a good legacy for future generations we must _____

9. In order to enjoy the earth and leave a good legacy for future generations we must (a) stop using chemical fertilizers (b) stop building good roads and houses (c) cut down large areas of forest (d) engage in planting of trees

10. A suitable title for the passage is (a) Our planet earth (b) Cutting down large areas of forest (c) the use of chemical fertilizers (d) Good roads and houses

SUMMARY

Read the following passage carefully and answer the questions that follow it:

Paragraph 1: Libraries play very important roles. Quite unfortunately this fact is not often appreciated in modern life. In the past, people went to libraries to read and to gather information on various subjects I remember when I was in secondary school, my classmates and I usually frequented our school library on a daily basis as we were thirsty for knowledge. This is no longer the practice among students nowadays.

Paragraph 2; Libraries perform many valuable roles. Traditionally, libraries were large collections of books. These books were usually on various disciplines and on diverse subjects. There are the encyclopaedias in which one can find information on practically all subjects and aspects of Libraries give people easy access to the much needed information.

Paragraph 3: In addition to books on various subjects and topics, today's libraries contain many other things. These include films, recordings, video tapes, photographs, computers and so on. So we discover that libraries are a store house of knowledge nowadays. People therefore go to libraries to acquire knowledge.

Paragraph 4: Libraries also play an important role in preserving the cultural heritage of society. No society would want its cultural heritage to die out. Many libraries make effort to preserve the much valued cultural heritage of the society. They have special collections of such items as rare books, works of local artists, music, portraits of very important people and many other things.

Paragraph 5: Many teachers have also found the libraries to be of immense value. Many of them would not want to rely solely on textbooks. They would want to have a sound knowledge of the subject matter they want to teach. They would want to gather almost all the available information the topic. Good teachers spend much time in the library gathering useful materials for their lessons.

Paragraph 6: There are many other roles performed by libraries. We should therefore appreciate the immense value of libraries

QUESTIONS

11. A suitable title for the passage is (a) The roles of libraries (b) Libraries in the olden days (c) Preservation of cultural heritage (d) Usefulness of libraries to the teacher

12. The main point in paragraph 2 is that libraries _____ (a) perform many roles (b) contain many encyclopaedias (c) provide easy access to information needed by people (d) have many books

13. In paragraph 3, the point being made by the writer is that libraries (a) contain films, recordings, video tapes (b) are a store of knowledge (c) have books on various disciplines (d) contain many other things

14. The main point in paragraph 4 is that libraries _____ (a) perform an important role (b) contain in many special collection (c) contain portraits of very important people (d) preserve a society's cultural heritage

15 The main point being made in paragraph 5 is that teachers go to libraries (a) to relax after laborious teaching (b) because they want to read story books (c) because they have access to libraries (d) because they want to have sound knowledge on the topic they want to teach

SECTION A

Fill in the gap with the most suitable option

16. Books and stories about imaginary people and events are called _____ a. novels b. Plays c. poems d. fiction

17. I was so hungry that I ate a mountain of rice. The figure of speech contained in the sentence is _____ (a) hyperbole b. simile c. metaphor d. paradox of

18. The person who writes poem is called a _____ a. playwright (b) poet (c) writer (d) producer

19. The central idea in a play or poem is called (a) setting (b) plot (c) summary (d) theme

20. The trees are waving their hands. This Statement contains (a) metaphor (b) personification (c) simile (d) alliteration

SECTION B

From the list of words lettered A-D choose the one that is nearly opposite in meaning to the underlined word in each sentence.

21. The school offers temporary accommodation to da stall (a) regular (b) decent (c) satisfactory permanent

22. The thieves vandalised the office equipment (a) serviced. (b) displaced (c) destroyed (d) scartiered

23 The lady claimed that the taxi driver splashed water on her deliberately (a) unintentionally (b) willingly c. determinedly (d) knowingly

24. Take note of the main points and ignore the _____ (a) details (b) others (c) esentials (d) major ones

25. If you think education is expensive try (a) schooling (b) literacy (c) informationy (d) ignorance

SECTIONC

From the options labelled A-D, choose the one that is nearest in meaning to the word underlined.

26. Guidance counsellors should regard all the information given by students as confidential

(a) secret (b) reliable (c) authentic (d) true

27. There are various options open to you on this matter (a) factors (b) choices (c) challenges (d) doors

28. I have no regard for arrogant people (a) useless (b) careful (c) proud (d) careless

29. The unceasing noise of the pupils irritated the teacher (a) nasty (b) loud (c) disturbing

(d) incessant

30. Her parents gave her their frank opinion (a) own (b) candid (c) cogent (d) elderly

SECTION D

From the options lettered A to D, choose the word that best completes each sentence.

31. The men helped Tope and (c) my (d) mine (a) me (b) I

32. Have you _____ the notes that the teacher gave us? (a) wrote (b) write (c) writing (d) written

33. The president's speech was _____ on television yesterday. (a) broadcasted (b) broadcasting (c) broadcast (d) broadcasts

34. Our present teacher usually us early in the morning (a) teach (b) teaches (c) teaching (d) taught

35. He left Ibadan _____ Lagos (a) for (b) to (c) from. (d) into

36. They have to blame if they disobey (a) themselves (b) themselves (c) theirselves (d) themselves

37. Our class is full of many (a) furnitures (b) furniture (c) items of furniture (d) item of furnitures

38. The teacher gave us which will help us to succeed (a) an information (b) some information (c) information (d) many information

39 The teacher is in the class, ? (a) isn't he (b) isn't it (c) wasn't the (d) wasn't

40. They went home early yesterday? (a) didn't they (b) isn't it (c) wasn't it (d) don't they

HIGHER HEIGHT COLLEGE

ENTRANCE EXAMINATION 2023/2024 ACADEMIC SESSION

SUBJECT: MATHEMATICS CLASS: J.S.S. THREE DURATION: 2 HOURS

INSTRUCTION: Choose the correct option from the option letter A – D

1. Make T the subject of formula in $P = \frac{100I}{RT}$
(a) $T = \frac{100}{PR}$ (b) $T = PR \times 100I$ (c) $T = \frac{100I}{RT}$ (d) $T = \frac{100I}{PR}$
2. Expand and simplify $5(x + y) - (x - 2y)$
(a) $4x + 7y$ (b) $4x + 4y$ (c) $4x + 3y$ (d) $4x - 4y$
3. Solve the simultaneous equation $2x + y = 7$ and $x - y = 2$. Find the value of x and y
(a) 1, 4 (b) 4, 7 (c) 3, 1 (d) 5, 2
4. Find the positive value of y when $x = 14$ in the equation $2y^2 - 3x = 8$
(a) 5 (b) 4 (c) 3 (d) 2
5. Add 3 hours 55minutes to 6 hours 15 minutes
(a) 9hrs 10mins (b) 10hrs 10mins (c) 10hrs 11mins (d) 10hrs 70mins

6. Calculate the compound interest on N1000 for 1 year at 20% interest rate per annum
(a) N200 (b) N350 (c) N440 (d) N500
7. Express 8.091×10^{-3} in ordinary form (a) 0.8901 (b) 0.8091 (c) 0.008091 (d) 0.08091
8. If a store keeper gets N1400 as salary per week, calculate the money he would get at the end of twelfths week (a) N14000 (b) N16800 (c) N19000 (d) N28000
9. Find the coefficient of m in the expansion of $(m + 2)(m + 7)$ (a) 2 (b) 7 (c) 9 (d) 14
10. Solve the inequality $4r + 2 \geq 3r - 6$ (a) $r \geq 8$ (b) $r \leq 4$ (c) $r \geq -8$ (d) $r \leq 8$
11. The sum of four consecutive numbers is 58. Find the numbers (a) 13, 15, 16, 17 (b) 12, 13, 14, 15 (c) $-13, -14, -15, -16$ (d) 13, 14, 15, 16
12. When the reciprocal of a number is added to half of its reciprocal, the result is $\frac{1}{5}$. Find the number (a) 5 (b) 2.5 (c) 7.5 (d) 15
13. Factorise $ab + bc - ad - cd$
(a) $(a - c)(b + d)$ (b) $(a + c)(b + d)$ (c) $(a + c)(b - d)$ (d) $(a - c)(b - d)$
14. A vehicle uses 60 litres of petrol for a journey of 750 km. how many litres would be used for a journey of 350 km (a) 54 litres (b) 20 litres (c) 28 litres (d) 10 litres
15. Find one-quarter of the positive difference between 29 and 11 (a) 4.5 (b) 3.5 (c) 18 (d) 40
16. Okechukwu was 62 years old 18years ago. What will be his age in 10 years' time?
(a) 90 years (b) 80 years (c) 70 years (d) 100 years
17. Convert 36_{seven} to base five (a) 102_5 (b) 27_5 (c) 21_5 (d) 30_5
18. Correct 6.9169 to 3 significant figures (a) 6.92 (b) 6.927 (c) 6.907 (d) 6.91
19. Find the smallest number by which 350 must be multiplied to give a perfect square
(a) 10 (b) 6 (c) 14 (d) 12
20. If $\sin y = \frac{12}{13}$ where $0 < y < 90^\circ$. find the value of $1 - \cos y$
(a) $\frac{8}{13}$ (b) $\frac{144}{169}$ (c) $\frac{25}{169}$ (d) $\frac{64}{169}$
21. If 80 is divided by the sum of 4 and a certain number, the result is 16. Find the number
(a) 2 (b) 4 (c) 5 (d) 1
22. Simplify $y^0 \times y^5 \times y^{-3}$ (a) y^2 (b) y^{-15} (c) y^{-2} (d) y^8
23. Add up the prime numbers between 60 and 70, then divide the sum by 4
(a) 32 (b) 42 (c) 61 (d) 67
24. Use table to find the angle whose sine is 0.5107 (a) 26.70 (b) 30.701 (c) 30.70 (d) 32.60
25. A square has a perimeter of 52 m. find its area (a) 26m² (b) 104m² (c) 169m² (d) 270m²
26. A school has 575 students of which 44% are boys, how many girls are in the school?
(a) 251 girls (b) 253 girls (c) 273 girls (d) 322 girls

Use the table to answer questions **27 – 29** for the relation $y = 2x + 5$

x	- 3	- 2	- 1	0	1	2	3	4
y	A	1	3	B	7	C	11	D

27. What is the value of A (a) 4 (b) -5 (c) -1 (d) 3
28. What is the value of $B^2 + 3D$ (a) -54 (b) 64 (c) 11 (d) 13
29. What is the value of $A + B + C + D$ (a) 15 (b) 26 (c) 30 (d) 36
30. A trader bought 12 electronic stoves at a cost of N3600, find the price of a stove.
(a) N300 (b) N400 (c) N450 (d) N150

SECTION B (Answer all)

1. (a) The formula $C = 180n + 450$ gives the daily cost C naira of running a household of n people: (i) Find the daily cost for 5 people (ii) How many people are there if the daily cost is N1170?
- (b) Simplify $\frac{1}{4(1-x)} = \frac{3}{4(1+x)}$
- (c) (i) Solve the simultaneous equation using elimination method
 $4x + 2y = 10$; $3x + 5y = 11$
2. (a) The period of oscillation T of a simple pendulum is given by $T = 2\pi\sqrt{\frac{l}{g}}$ where l is the length and g is the constant of gravitation. Express g in terms of T , π and l
- (b) In the right angled triangle below. Find the expression for each of the following
(i) $\sin \alpha$ (ii) $\cos \beta$ (iii) $\sin \alpha + \sin \beta$ (iv) $\cos^2 \beta$

HIGHER HEIGHT COLLEGE

SECOND TERM EXAMINATION 2023/2024 ACADEMIC SESSION

SUBJECT: ENGLISH LANGUAGE CLASS: J.S.S.THREE DURATION: 1HR 30 MINS

Choose the correct answer from options a – d in this section

SECTION A (OBJECTIVE)

COMPREHENSION

Read the passage carefully and answer the questions that follow

Perseverance is a quality which anybody who intends to succeed in any venture must possess. Indeed the lack of this great has been responsible for the failure of many people. A lot of things be achieved through perseverance. What is perseverance? It is the determination to endure all types of situations so as to achieve desired objective. When, in spite of obstacles in one's way,

one determines to succeed, the then person then perseveres. The consequence of such determination is success. A farmer who cannot persevere cannot reap a harvest. Apart from preparing the land, to plant the crops, weed the farm, prune the plants if need be, toil day and night to take care plants. If it is a cash crop like cocoa which takes a longer time before it matures, the farmer has to wait for a long time before the harvest can come Ultimately what he gets is a bountiful harvest.

Similarly, a student who wants to excel must possess the quality of perseverance. He has to obey the instructions of his teachers, do all assignments, be all ears in the classroom. He has to burn the midnight oil. He has to overcome all obstacles on his way. As a result of his relentless efforts he performs brilliantly in his examination. A lazy student is not willing to persevere. He comes to school irregularly. He 'stabs' lessons. He doesn't pay much attention to his teachers' instructions. While his mates are reading in the night, he is snoring. When examination comes he will be looking for a way of cheating so as to pass. He will want to use the 'giraffe' method, he will want to smuggle books into the examination hall, he may write some notes on his palms or thighs to be used in the examination hall. What happens eventually is that he will be caught. He is fortunate if he is asked to repeat the class, for he may be expelled from rejoicing, he will be sorrowing and full of regrets.

Any businessman who gives up after some setback obstacles or setbacks in any venture, it is when they become rich or wealthy. So, the individual has to make up his mind to persevere. Look at the example of Abraham Lincoln. He failed at everything he tried his hand at- law, business, even politics. Undiscouraged he tried the presidency. Apart from winning, he is today among America's best known figures. If he had not persevered, nobody would have known him. I have discovered the reason why many people are poor. They have not learnt to persevere. They try a venture and when there are initial failures or setbacks, they give up. So, they contract the disease called poverty. Don't give up, persevere.

QUESTIONS

1. An alternative title for this passage is A. Why farmers don't reap bountiful harvest B. While some students excel and some do not C. Hardwork D. Don't give up
2. According to the passage, what is the meaning of perseverance? It means a. enduring all situations and overcoming all obstacles to achieve success b. burning the midnight oil c. taking care of crops for a long time d. overcoming obstacles in business
3. According to the passage, a student who achieve excellence is the one who..... a. attends school regularly b. absents himself from classes C. Obeys the teacher's instructions, does his assignment and studies very hard D. uses the giraffe method in examination
4. To burn the midnight oil means to...A. put oil in the lamp at night B. keep the lamp burning at midnight C. light the lamp at midnight D. read far into the night

5. According to the passage, many people remain poor because they..... A. they don't know what to do B. are lazy C. cannot persevere as they give up after initial failures D. don't engage in profitable ventures

SECTION A

Fill in the following gap with the most suitable option

6. A person learning to write poems is called..... A. writer B. poet C. poetaster D. stenographer
7. A form of imaginative writing that gives the account of the writer's life is A. biography B. fiction C. autobiography D. memoir
8. The person that works against the main character is A. protagonist B. antagonist C. cast D. playwright
9. Hurry up, our time is running out. The figure of speech in the above statement is A. metaphor B. personification C. simile D. irony
10. Everybody in Ibadan attended my sister's wedding, the figure of speech herein is A. hyperbole B. paradox C. irony D. euphemism

SECTION B

From the option lettered A-D, choose the only that is most opposite in meaning to the underlined word.

11. The trade unions have issued a two-week ultimatum as a prelude to a general strike. A. notice B. deadline C. pronouncement D. extension
12. The government introduced a dawn to curfew. A. twilight B. dusk C. sunset D. midnight
13. The relationship between father and son deteriorated to a point of hostility after the son's expulsion from the university. A. brightened B. improved C. worsened D. accelerated
14. Ade decried the conduct of the students at the Back to school Mixer. A. condemned B. commended C. appalled D. encouraged
15. The angry protesters vandalized banks and other public institutions. A. destroyed B. displaced C. serviced D. scattered

SECTION C

From option lettered A-D, choose the one that is most nearest in meaning to the underlined word.

16. The newly elected governor has pledged to ensure better life for the citizens. A. agreed B. insisted C. vowed D. uttered
17. My brother is an unusually audacious boy. A. daring B. clever C. mischievous D. rude
18. The new Principal gave a stern warning to the naughty boys. A. wicked B. strong C. terrible D. strict

19. The incarceration of the criminal will serve as a deterrent to others. A. model B. pardon C. warning D. example
20. Bola gleefully celebrated our victory. A. strongly B. openly C. fearlessly D. heartily

SECTION D

From the option lettered A-D, choose the word that best completes each sentences.

21. The notorious criminal has been..... to life imprisonment. A. banished B. convicted C. punished D. sentenced
22. Besides being a qualified nurse, Sade is also good in accounting, music and dress-making; she is quite A. versatile B. volatile C. skilled D. pushed
23. The Mathematics teacher is than the English language teacher. A. kind B. more kind C. much kind D. most kind
24. Umar dislikes that habit of.....A. you B. yours C. your's D. yourself
25. You must learn to stand up..... anyone who wants to bully you. A. for B. by C. with D. to
26. Having once given her word, she vows never to go back..... it. A. about B. for C. on D. out
27. The woman with her children..... coming. A. are B. aren't C. is D. were
28. Let's call it a day,? A. do we B. can we C. shall we D. will we
29. She is in our class,? A. does she B. isn't she C. was she D. wasn't she
30. Your brother hasn't stopped cheating,.....? A. does he B. isn't it C. has he D. doesn't he
31. Your sister will get married next month,.....? A. would she B. won't she C. will she D. isn't it
32. Of the two boys Chinedu is the.....A. most tall B. taller C. more taller D. tallest

Choose the alternative interpretation that you consider most appropriate for the following sentence

33. The father stuck to his guns on his own solutions to his daughter's problem despite all the pleading of relatives and friends. This means that the father A. Changed his mind B. Maintained his stance resolutely C. Disowned his father D. Punished his daughter
34. Taiwo's mother advised her to cut her cloth according to her cloth. This means that her mother advised her to her to A. Cut her cloth in a style suited to the cloth design B. Economise in cutting the cloth C. Sew a gorgeous cloth D. Suit her expenditure to her income
35. He gave me a cold a shoulder the last time I visited him. This means that he A. He showed me that he did not like my company B. Showed me that he liked my company C. Pushed me on the shoulder D. Stood shoulder to shoulder with me

SECTION E

Choose from the options lettered A-D the word that contains the sound of the phonetic symbol given

- | | | | | |
|-----------|-----------|-----------|------------|-----------|
| 36. / / | A. lace | B. dress | C. price | D. pride |
| 37. /u:/ | A. look | B. crude | C. book | D. could |
| 38. / a:/ | A. cart. | B. judge | C. target | D. buoy |
| 39. /ae/ | A. farm | B. man | C. market | D. quay |
| 40. / / | A. smooth | B. wealth | C. weather | D. thanks |