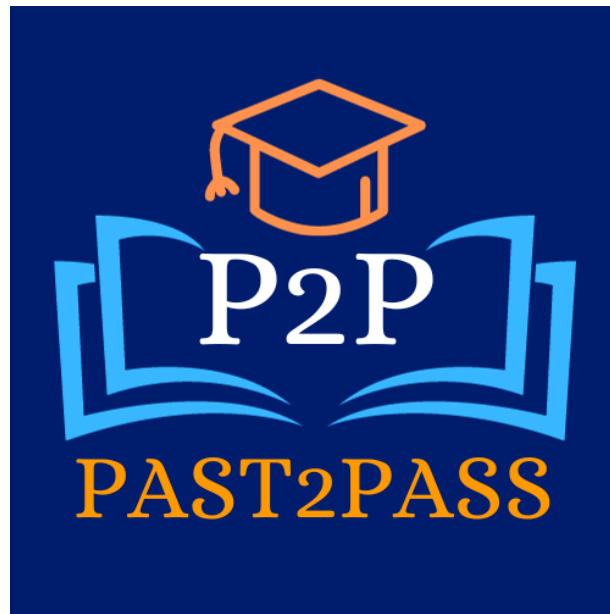# FUNAAB
Post UTME
Past Questions and Answers

ENGLISH LANGUAGE

In questions 1-30, choose the **best option** to fill in the gap.

1. With his reading glasses, he could see the word……………………..
    (a) much more clearer   (b) Much clearly more   (c) much more clearly   (d) clear

2. Hardly had the journey started,…......................the car engine developed a fault.
    (a) That   (b) When   (c) Than   (d) soon

3. The story she was reading made her ……………………..
    (a) Laughed   (b) To laugh   (c) Laugh   (d) Laughing

4. I am not going to the stadium with you as I .... that team play before
    (a) Am seeing   (b) Have seen   (c) Had seen   (d) Was seeing

5. The visitor was very uncomfortable because of his ....nose
    (a) Runny   (b) Watery   (c) Flowing   (d) Running

6. _____you should put in some effort to show that you are intereste(d)
    (a)   However you are tired
    (b)   However tired you are
    (c)   However tired are you
    (d)   However is you tired

7. The teacher asked_____will have the courage to try and lift that heavy Log?
    (a)   whom   (b) which   (c) who   (d) whomever 8. My brother married a _loquacious_ woman.
    (a) quiet   (b) noisy   (c) talkative   (d) beautiful

9. This engine is…......................that one.
    (a)   Superior   (b) More superior than   (c) more superior to   (d) superior to

10. I could not attend the meeting, so I asked my sister to stand… .... for me

(a)   Up   (b) By   (c) in   (d) on

11. Since we were given all the things we requested, we should …….with what we have

    (a)   Make up   (b) Make on   (c) make do   (d) make with 12.
Must you always … lies? Why don't you … the truth for once?

    (a) speak   (b) say   (c) talk   (d) tell

13. Don't let him bully you, you must stand up… .... him

    (a) for   (b) before   (c) to   (d) against

14. In this letter there.............good news about your elder brother

    (a) is some   (b) are   (c) to   (d) against

15. Here's the book you wanted. Is there anything .... i can get you?

    (a) more   (b) against   (c) else   (d) other

16. My father .... to smoke a lot, but he gave it up several years ago

    (a) was used   (b) has been   (c) is used   (d) used

17. This classic .... with enjoyment for nearly two hundred years.

    (a) has been read
    (b) will have been read
    (c) shall have been read
    (d) was read

18. The bold railway station has been turned… .... a very smart restaurant.

    (a) in   (b) into   (c) on   (d) onto

19. Let's try to get home quickly before the rain really………………… .

    (a) sets in   (b) sets on   (c) sets off   (d) sets dow

20. There are too many people sleeping……on the streets of London and other big British cities.

    (a) rough   (b) wild   (c) hard   (d) fierce

21. Are you able to… ....CDs on your computer

    (a) toast   (b) cook   (c) bake   (d) burn

22. This area of town is beginning to look very .... and impoverished.

    (a) broken-down   (b) put-down   (c) run-down   (d) marked –down

23. In study hall I...........................Paul Smith, who is captain of the swim team and one of the best swimmers in the state.
    (a) Sit besides   (b) Sat beside   (c) Have set beside   (d) Sit beside

24. Many 19th-century biographers _____not on real facts.

    (a) Rely on their imagination
    (b) Relied on their imagination
    (c) Have relied on their imagination
    (d) could have relied on their imagination.

25. Knock _____you enter the head of department's office.

    (a) As   (b) When   (c) Before   (d) As/when

26. The patient is suffering from _____

    (a) Rheumatism   (b) rheumatism   (c) Rheumantism   (d) rehnmantism

27. When he asked her to marry him, Ada was_____than she had though possible

(a) happier   (b) more happier   (c) so happy   (d) too happy

28. He's a cockney: he was born and _____up in London.

      (a) bread   (b) bred   (c) brought   (d) brought

29. If Kennedy _____been killed, he would have been president for four years.

      (a) had not   (b) has not   (c) hasn't   (d) hadn't

30. When his wife died, he was _____with grief.

      (a) has been overcome   (b) been overcame   (c) overcome   (d) overcame

In question 62-66, choose the option that has the **same vowel sound** as the one represented by the letter(s) underline(d)

31. L<u>u</u>ck.

      (a). lack   (b). tum   (c). Lock (d). Brother

32. G<u>ua</u>rd

      (a). Guide (b). Argue (c). Chat (d). Gourd

33. B<u>ee</u>r.

      (a). Fair (b). Bear (c). Pier (d). Pear

34. N<u>i</u>ne

      (a). Pint (b). Gill (c). Pin (d). Click

35. B<u>ea</u>r

      (a). Beer (b). Steer (c). Rare (d). Fear

In questions 67-71, select the option that best explains the information conveyed in the sentence.

36. He could not have rewarded them more handsomely.

   a) He did not reward them very well
   b) He rewarded them well and he was also a good looking man
   c) He rewarded them very well
   d) He spoke to them in a very generous way

37. My advice to Tolu was 'look before you leap'.

   a) Tolu was advised to consider her options before reaching any decisions.
   b) Tolu was advised to consider possible consequences before taking action.
   c) Tolu was advised to weigh her decisions by looking and leaping.
   d) Tolu was advised to leap only after looking.

38. The official had allegedly been taking bribes.

   a) Some people accused the official of taking bribes
   b) The official had been taking bribes without feeling any guilt.
   c) It was proved that the official had been taking bribes
   d) The official accused some people of taking bribes

39. Emeka hardly ever holds with my view on good governance.
   a) Emeka sometimes opposes my idea of good governance
   b) My view of what good governance is conforms with that of emeka
   c) Emeka never really supports my opinion of good governance
   d) Emeka may never hold a view which conflicts with mine on good governance.

40. There's a door at either end of the building.

   a) The building has two ends and two doors
   b) The building has two ends but only one door
   c) The building has two ends but i do not know which of the two has a door

d) The building has many ends, each with a door

In questions 72-76, choose from the options the word that has the same consonant sounds as the underlined letter(s) in each word.

41. <u>Th</u>ough

    (a) <u>Th</u>eater   (b) Taught   (c) Weather   (d). Fate

42. Cali<u>ph</u>

    (a) Presently   (b) Perhaps   (c) Powerful   (d) opponent

43. <u>S</u>ure

    (a) Cheer   (b) Cheap   (c) Charlatan   (d) church

44. Past

    (a) Wrestle   (b) Preached   (c) Castle   (d) Pasture

45. <u>Th</u>ank

    (a) Though   (b) Thought   (c) Thames   (d) Thomas

In the questions 77-81, choose the most appropriate option **opposite in meaning** to the word(s) or phrases bolded.

46. The chairman's verdict *redressed* the injustice mete out by the secretary.
    (a) Corrected   (b) restored   (c) aggravated   (d) addressed

47. Uche could not travel last December because of the *severity* of the harmattan.

    (a) Cold   (b) mildness   (c) warmth   (d) moderation

48. Mrs. Koffi is very *provocative* in her style of dressing.

(a) Modest   (b) happy   (c)angry   (d) beautiful

49. Travelling in the night can be *an ordeal.*

     (a) A great experience (b) a great fear   (c) a great endurance   (d) a great pleasure

50. Akoso though that her father was *callous*

     (a) Indifference   (b) compassionate   (c) wicked   (c) careless

In the questions 82-86, choose the option **nearest in meaning** to the words or phrase in italics.

51. Ugo has often been described as *belligerent.*

     (a) Attractive   (b) patient   (c) innocent   (d) combative

52. While the thugs exchange blows, we looked *complacently*

     (a) Dejectedly   (b) sorrowful   (c) questioningly   (d) contentedly

53. Tade became *timorous* when she was asked to give the valedictory speech

     (a) Excited   (b) nervous   (c) aggressive   (d) happy

54. The players kept on *gamely* to the end of the match

     (a) Amateurishly   (b) skillful   (c) courageously   (d) stubbornly

55. Art lies in cherishing the initiative and *creative power* of each person.

     (a) Potential   (b) strength   (c) gift   (d) mind

In questions 87-91, choose the appropriate **stress pattern** from the option. The syllables are written capitals.

56. Jurisprudence

   (a) JUrisprudence   (b) juRISprudence   (c) jurisPRUdence   (d) jurispruDENCE

57. Suburbanite

   (a) SUburbanite   (b) subURbanite   (c) suburBAnite   (c) suburbaNITE

58. Departmentalize

   (a) departMENtalize   (b) dePARTmentalize (c) DEpartmentalize (d) departmenTAlize

59. Organise

   (a) ORGAnise   (b) orGAnise   (c) orgaNISE   (d) orGANISE

60. International

   (a) International   (b) international   (c) international   (d) international

61. Choose the option that best conveys the meaning of the underlined portion in the following sentence

Being an optimist, our professor always sees the <u>bright side</u> of most things.

(a) charming   (b) illumined   (c) brilliant   (d) pleasing

62. Choose the option that best conveys the meaning of the underlined portion in the following sentence

The state government appointed a commission of inquiry <u>to go into</u> the community's complaints carefully and without prejudice.

(a) investigate   (b) search   (c) look for   (d) account for

63. Choose the option that best conveys the meaning of the underlined portion in the following sentence

The traffic situation in Lagos can lead to disastrous consequences; a man lost a very lucrative job because he was <u>held up</u> by it.

(a) confused (b) delayed (c) annoyed (d) intrigued

64. Choose the option that best conveys the meaning of the underlined portion in the following sentence

The two sprinters were running <u>neck and neck.</u>

(a) exactly level (b) very slowly (c) very fast (d) together

65. Choose the option that best conveys the meaning of the underlined portion in the following sentence

He <u>stared</u> at her.

(a) glanced (b) peeped (c) looked (d) gazed

67. Choose the option that best conveys the meaning of the underlined portion in the following sentence

When the man was caught by the police, he <u>presented a bold front.</u> (a) he attacked the policeman

(b) he walked up to the policeman

(c) he faced the situation with apparent boldness

(d) he bravely attempted to give them a present

68. Choose the option that best conveys the meaning of the underlined portion in the following sentence

I have been able to observe him <u>at close quarters.</u>

(a) in government house nearby

(b) within a short space of time

(c) in a small family house (d) at close range

69. Complete the following sentence by choosing the option that **most suitably** fills the space.

When the beggar was tired he …. down by the roadside.

(a) lied   (b) laid   (c) layed   (d) lay

70. Complete the following sentence by choosing the option that **most suitably** fills the space.

He did not like … leaving the class early.

(a) we   (b) us   (c) our   (d) ourselves

71. Complete the following sentence by choosing the option that **most suitably** fills the space.

   The boy was born before his parents actually got married and so the court has cleared him …

   (a) illegal   (b) illegitimate   (c) illicit   (d) unlawful

72. Complete the following sentence by choosing the option that **most suitably** fills the space.

As he was still owing me two Naira, I was careful not to … him any more money.

(a) lend   (b) loan   (c) borrow   (d) credit

73. Complete the following sentence by choosing the option that **most suitably** fills the space.
If you travel by air. You will give an allowance to cover … .

(a) a luggage   (b) luggage   (c) luggages   (d) a baggage 74.

Complete the following sentence by choosing the option that **most suitably** fills the space.

Bola and Sade lived about the same time and therefore … poets.

(a) contrary   (b) contractual   (c) contemporaneous   (d) contemporary

75. Complete the following sentence by choosing the option that **most suitably** fills the space.

Remember, this matter is strictly … .

(a) between you and I

(b) among you and me

(c) between you and me

(d) between you and me

76. Complete the following sentence by choosing the option that **most suitably** fills the space.

They … receive visitors on short notice.

(a) use to   (b) are used to   (c) are always   (d) are use to

77. Complete the following sentence by choosing the option that **most suitably** fills the space.

His suggestions are completely … the point and cannot be accepted.

(a) to   (b) about   (c) beside   (d) on

78. Complete the following sentence by choosing the option that **most suitably** fills the space.

He went up quickly and returned … .

(a) fastest   (b) fastly   (c) as fastly   (d) as fast

79. Complete the following sentence by choosing the option that **most suitably** fills the space.

Invariably, he ends his letters with … amicably.

(a) you   (b) your's   (c) yours'   (d) your own

80. Complete the following sentence by choosing the option that **most suitably** fills the space.

Our plane was scheduled to … at 10:00 hrs but it was delayed because of the bad weather.

(a) fly out   (b) take off   (c) start out   (d) shoot off

81. Complete the following sentence by choosing the option that **most suitably** fills the space.
If I went to the cinemas I… early.

(a) shall return   (b) am returning   (c) would return   (d) may return

82. Complete the following sentence by choosing the option that **most suitably** fills the space.

Before we left the train station, each passenger was made to … certain form.

(a) fill in   (b) write in   (c) enter in   (d) go through

83. Complete the following sentence by choosing the option that **most suitably** fills the space.
The managing director did not pay his staff last month, …?

(a) didn't he   (b) had he not   (c) is not it   (d) did he

84. Complete the following sentence by choosing the option that **most suitably** fills the space.

Granted you are my senior by one year, you cannot … around as if I were your servant.

(a) control   (b) dribble   (c) order   (d) ask

85. Complete the following sentence by choosing the option that **most suitably** fills the space.

The train rattled along … full speed.

(a) in   (b) at   (c) with   (d) on

86. Complete the following sentence by choosing the option that **most suitably** fills the space.

If this had happened to you, what …?

(a) would you do   (b) have you done   (c) would you have done   (d) will you do 87.

Complete the following sentence by choosing the option that **most suitably** fills the space.

There were so many children … .

(a) that she couldn't feed them all

(b) that she could feed

(c) that she couldn't feed

(d) that she could feed them all

88. Complete the following sentence by choosing the option that **most suitably** fills the space.

In West Africa, the … of sickle cell is about 25 percent.

(a) incident   (b) incidence   (c) accident   (d)accidence

89. Complete the following sentence by choosing the option that **most suitably** fills the space.
We got to the hall after the play … .

(a) is started   (b) was starting   (c) had started   (d) has started

90. Choose the option nearest in meaning to the sentence below.

For all he cared, his parent might have been dead for years.

(a) although concern about his parent, he had been unable to find out if they were alive

(b) he cared for no one except his parents, and it was possible that they had died long before

(c) he did not care whether his parents were alive or had died long before

(d) he was concerned about everyone not just his parents who might have died long before

91. Choose the option nearest in meaning to the sentence below.

Had she asked me earlier, I might have been able to employ him.

(a) I employed her

(b) I did not employ him

(c) I employed him

(d) I did not employ her

92. Choose the option nearest in meaning to the sentence below.

As he was a gullible leader, his followers took advantage of him.

(a) He was weak and unable to enforce his authority (b)

He was simple-minded to a fault.

(c) He was partial and unfair in dispensing justice. (d)
He was slow to act

93. Choose the option nearest in meaning to the underlined word(s).

I didn't think she could be so easily <u>taken in</u> by his pretenses.
(a) flattered   (b) deceived   (c) overcomed   (d) blackmailed

.

94. Choose the option nearest in meaning to the underlined word(s).

The story told by the suspect was <u>difficult to believe</u>.

(a) incredulous   (b) credible   (c) credulous   (d) ridiculous

95. Choose the option nearest in meaning to the underlined word(s).

Most of his observations were <u>wide off the mark</u>.

(a) comprehensive   (b) irrelevant   (c) pertinent   (d) came rather late

96. Choose the option nearest in meaning to the underlined word(s).

He heard a <u>loud noise</u> of the huge air-raid siren.

(a) buzz   (b) crack   (c) rumble   (d) whistle

97. Choose the option nearest in meaning to the underlined word(s).

One of the stages of the creative process is the <u>incubation perio(d)</u> This refers to the period when

(a) the idea is firmly fixed through repetition

(b) the person suddenly comes upon the idea

(c) the person thinks over the idea

(d) the person thinks over the idea

98. Choose the correct option that completes the following sentence.
The young teacher was surprised that his promotion was approved by the old inspector who is generally known to … .

(a) be generous   (b) be friendly to young people   (c) be hard to please   (d) be very careful

99. Complete the following with the appropriate answer to the question. John, would you mind lifting this box?

(a) yes, I mind   (b) no, I don't   (c) no, I do   (d) yes, I don't mind 100.

Choose the expression or word which best complete the sentence.

It was a long poem but he learnt it … .

(a) off head   (b) in memory   (c) by heart   (d) at heart

101. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

Only the small fry get punished for such social misdemeanours

(a) small boys   (b) unimportant people   (c) frightened people   (d) frivolous people

102. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

He spoke with his heart in his mouth.

(a) courageously

(b) with such unusual cowardice

(c) with a lot of confusion in his speech

(d) with fright and agitation

103. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

His jail terms were run concurrently.

(a) simultenously   (b) uniformly   (c) laboriously   (d) judiciously

104. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

The bill has to wait as we are now <u>insolvent.</u>

(a) overworked   (b) bankrupt   (c) unsettled   (d) affluent

105. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

All his plans <u>fell through</u>.

(a) failed   (b) were accomplished   (c) had to be reviewed   (d) were rejected

106. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

The result of his experiment represents a <u>breakthrough</u> in medical science.

(a) an outstanding success

(b) catastrophe

(c) breaking point

(d) colossal failure

107. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

He was appointed specifically <u>to put the recruits through</u>.

(a) assign them to work

(b) train them

(c) discipline them

(d) assist them at work

108. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

Mrs Dada has been deserted by her husband because he feels she has a <u>heart of stone</u>.
(a) she has a heavy heart

(b) she has little warmth of feeling

(c) she has a hard heart

(d) she is hard-hearte(d)
109. If my Father had not arrived, I would not have starve(d) This sentence means

(a) my father did arrive and I didn't starve

(b) I had to starve because my father didn't come

(c) my father didn't arrive and I didn't starve

(d) I had starved before my father arrived

110. Choose the option that **most suitably** fills the gap in the sentence below.

Before the operation, the dentist found that his patient's teeth … .

(a) have long decayed

(b) have long been decayed

(c) have long being decayed

(d) had long decayed

111. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

The employer, not the salesman and his representative … responsible for the loss.

(a) are   (b) are being   (c) are never   (d) is

112. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

In order to carry out necessary examination, the dead body was .. .

(a) extracted   (b) extradited   (c) exiled   (d) exhumed

113. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

He went abroad with a view … a business partner.

(a) to find   (b) to be finding   (c) to have found   (d) to finding

114. Choose the option that best conveys the meaning of the underlined portion of the below sentence.
He had just entered the office … the telephone rang.

(a) as   (b) before   (c) since   (d) when

115. Choose the option that best conveys the meaning of the underlined portion of the below sentence.

My father cannot bear the … of the concoction that emanates from my mother's soup pot.

(a) scent   (b) aroma   (c) smell   (d) savour

116. Choose the word or phrase **nearest in meaning** to the word(s) underline(d)

In some parts of our society, people are <u>ostracized</u> purely on the basis of their parentage.

(a) hated   (b) disrespected   (c) shut off from others   (d) abandoned

117. Choose the word or phrase **nearest in meaning** to the word(s) underline(d)

Sitting majestically on his throne is the Oba of Benin <u>flanked</u> by his wives.

(a) surrounded   (b) supported   (c) guarded   (d) protected

118. Choose the appropriate option to fill the gap in the sentence below.

As a result of the injury sustained on the football field, Sola was … with a broken leg for months.
(a) laid off   (b) laid out   (c) laid on   (d) laid up

119. Choose the word or phrase **nearest in meaning** to the word(s) underline(d)

I listened with rapt attention as he never suspected that I knew he was telling me <u>a cock and bull story</u>.
(a) a story about a cock
(b) a story about bull
(c) an interesting story
(d) an incredible story

120. Choose the word or phrase **nearest in meaning** to the word(s) underline(d)

When a man is <u>immune</u> to an illness, he is
(a) opposed to it   (b) attached to it   (c) hated by it   (d) protected against it 121.

Complete the sentence with the **correct option**.

Shall we go to the union meeting? No thank you, I do not feel like … anywhere.

(a) go   (b) going   (c) to go   (d)to have gone

122. Complete the sentence with the **correct option**.

I started writing this test at 8:00am. It is 10:00am now. By 11:00am, I … it for three hours. (a) shall be writing (b) have been writing (c) shall have been writing (d) was writing

123. Complete the sentence with the **correct option**. Don't study on the examination day.

What did he tell you? He told me … on the examination day.

(a) no studying (b) don't study (c) not study (d) not to study 124.

Choose the **best option** to fill the gaps in the following sentence.

I am a student and … Musa. I left for the university, and … Musa.

(a) was, does (b) so is, so did (c) so was, so does (d) he is, he did 125.

Choose the **best option** to fill the gaps in the following sentence.

You have been absent from classes for four months. How can you … for the lost time?

(a) make in (b) make up (c) make off (d) make out

ANSWERS: USE OF ENGLISH

1. C	38. A	75. C	112. D
2. B	39. C	76. C	113. D
3. B	40. C	77. A	114. D
4. B	41. C	78. D	115. C
5. A	42. C	79. D	116. C
6. B	43. C	80. B	117. A
7. C	44. D	81. C	118. A
8. C	45. B	82. D	119. C
9. D	46. A	83. D	120. D
10. C	47. B	84. C	121. B
11. C	48. A	85. A	122. C
12. B	49. A	86. C	123. D
13. C	50. B	87. A	124. B
14. B	51. D	88. B	125. B
15. C	52. D	89. C 16. D	53. B

90. C 17. A   54. C   91. B 18. B

55. A   92. C 19. A   56. B   93. B

20. B	57. A	94. C
21. D	58. B	95. B
22. A	59. A	96. D
23. B	60. B	97. C
24. B	61. D	98. D
25. C	62. A	99. B
26. B	63. B	100. C
27. A	64. A	101. B
28. B	65. D	102. D
29. A	66. C	103. A
30. D	67. C	104. B
31. D	68. D	105. A
32. B	69. D	106. A

33. C	70. C	107. B
34. A	71. B	108. D 35. C
72. A 109. A 36. C	73. B	110. D
37. B	74. D	111. D

MATHEMATICS

1. Solve for p in this following equation given in base two. $11(p+110) = 1001p$

(a) 10   (b) 11   (c) 110   (d) 111.

2. In a class, 37 students take at least one of chemistry, economics and government, 8 students take chemistry, 19 take economics and 25 take government. 12 students take economics and government but nobody takes chemistry and economics. How many students take both chemistry and government?

(a) 3   (b) 4   (c) 5   (d) 6.

3. A businessman invested a total of N200,000 in two companies which paid dividends of 5% and 7% respectively. If he received a total of N11,600 as dividends, how much did he invest at 5%?

(a) N160,000   (b) N140,000   (c) N120,000   (d) N80,000.

4. A cyclist rode for 30minutes at $x$km/hr. If the total distance covered is less than 60km, what is the range of values of x?

(a) x<14   (b) x<20   (c) x<29   (d) x<28

5. Z is a partly constant and partly varies inversely as the square of d. when d = 1, z = 11 and when d= 2, z= 11. Find the value of z when d = 4.

(a) 2   (b) 3.5   (c) 5   (d) 5.5

6. Factorize $16(3x+2y)^2 - 25(a+2b)^2$

(a) (12x+8y+5a+10b) (12x+8y-5a-10b)
(b) (12x+8y-5a-10b) (12x+8y-5a-10b)
(c) 20(3x+2y-a-2b) (3x+2y+a+2b)
(d) 20(3x+2y+a+2b) (3x+2y+a+2b)

7. A cone has a base radius 4cm and height 3cm. The area of its curved surface is

(a) 12лcm^2 (b) 24 лcm^2 (c) 20 лcm^2 (d) 15 лcm^2

8. Let log y + log3 = 3. Then, y is

9. Expand the expression $(x^2-2x-3)(x^2+x+1)$
(a) $x - 4x - 5x - 3$ (b)
$-x^3 - 4x^2 - 5x - 3$
(c) $x^4 - x^3 - 4x^2 - 5x - 3$ (d) $x^4 - 4x^2 - 5x - 3$.

10. A girl walks 30m from a point P on a bearing of 040^0 to a point Q. She then walks 30m on a bearing of 140^0 to a point R. the bearing of B from P is
(a) 90^0 (b) 50^0 (c) 45^0 (d) 40^0

11. A regular polygon has each of it angles as 160^0. What is the number of sides of the polygon?
(a) 36   (b) 9   (c) 18   (d) 20.

12. The interior angles of a pentagon are: 180^0, 118^0, 80^0, 78^0 and x. The value of x is:
(a) 75^0 (b) 108^0 (c) 120^0 (d) 134^0

13.   All the vertices of an isosceles triangle lie on a circle and each of the base angles of the triangle is 65^0. The angle subtended at the centre of the circle by the base of the triangle is: (a) 130^0 (b) 115^0 (c) 100^0 (d) 65^0

14.   A square tile measures 20cm by 20cm. How many of such files will cover a floor measuring 5m by 4m.
(a) 500   (b) 400   (c) 320   (d) 250

15. The volume of a certain sphere is numerically equal to twice its surface area. The diameter of the sphere is:

(a) 6   (b) 9   (c) 12   (d) $\sqrt{6}$

16. A bearing of 310^0, expressed as a compass bearing is:
(a) $N50^0W$ (b) $N40^0W$ (c) $S40^0W$ (d) $S50^0W$

17. The average of the three children in a family is 9 years. If the average age of their parents is 39 years, the average age of the whole family is:

(a) 20 years   (b) 21 years   (c)24 years   (d) 27 years.

18. Simplify 1 $3 \div (1 +$
+

19. Evaluate x in base 3 if $41_x - 22_x = 17_x$

(a) 11   (b) 8   (c) 12   (d) 22

20. A woman buys 4 bags of rice for ₦56 per bag and 3 bags of beans for ₦26 per bag using the currency "NAIRA" (₦) in base 7. What is the total cost of the items in another currency "ANTI" (₳) in base 8?

(a) M224   (b) M114   (c) M340   (d) M440

21. When the price of egg was raised by ₦2 an egg, the number of eggs which can be bought for ₦120 is reduced by ₦5. The present price of an egg is

(a) ₦6   (b) ₦7   (c) ₦8   (d) ₦10

22. How long will it take a sum of money invested at 8% simple interest to double the original sum?

(a) 8 years   (b) 10.5 years   (c) 12 years   (d) 12.5 years.

23. The journey from Lagos to Ibadan usually takes a motorist 1 hour 30 minutes. By increasing his average speed by 20km/hr, the motorist saves 15 minutes. His usual speed, in km/hr is

(a) 100   (b) 90   (c) 85   (d) 80.

24. The smallest section of a rod which can be cut into exactly equal sections, each of either 30cm 0r 36cm in length is

(a) 90cm   (b) 180cm   (c) 360cm   (d) 540cm

25. If x = 0.0012 + 0.00074 + 0.003174, what is the difference between x and 2 decimal places and x to 1 significant figure?

(a) 0.01   (b) 0.0051   (c) 0.1   (d) 0.005

26. The angle of depression of two point A and B on a plane field from the top of a mast erected between A and B are 30^0 and 45^0 respectively. If A is westward of B, find │AB│ if the height of the mast is 15m from the field.

        m   (b) $5(3+\sqrt{3})$m   (c) $15(1+\sqrt{3})m$ (d) 15(   )m

27. The radius of a circle is given as 10cm subject to an error of 0.2cm. the error in the are of the circle is

                 (c) 2%   (d) 4%

28. In a survey of 100 students in an institution, 80 students speak Yoruba, 22 speak Igbo, while 6 speak neither Igbo nor Yoruba. How many students speak Yoruba and Igbo.

(a) 96   (b) 8   (c) 64   (d) 12

29. A bag contains 5 yellow balls, 6 green and 9 black balls. A ball is drawn from the bag. What is the probability that it is a black or yellow ball?

30. The expression $a^3 + b^3$ is equal to

(a) $(a^2 + b)(a - ab - b^2)$

(b) $(a + b)(a^2 - ab + b^2)$

(c) $(a - b^2)(a^2 - ab + b)$

(d) $(a - b)(a^2 + ab + b^2)$

31. A cylinder has height 4cm and base radius 5cm. its volume to 3 significant figure is

(a) $314.2cm^2$ (b) $31.42cm^2$ (c) $251.4cm^2$ (d) $251cm^2$

32. Find the value of P if the line joining (P, 4) and (6, -2) is perpendicular to the line joining (2, P) and (-1, 3).

(a) 4　　　　　(b) 6　　　　　　(c) 3　　　　　(d) zero

33. Dividing $2x – x – 5x + 1$ by $x + 3$ gives the remainder.

(a) -3　　　　　(b) 47　　　　　　(c) 61　　　　　(d) -47

34. Let $f(x) = 2x – 3x – 5x + 6$. If $x – 1$ divides $f(x)$ find the zeros of the function.

(a) 1, 2,　　　　　(b) 1,2,　　　　(c) -1, 2, 3

35. The difference of two numbers is 10, while their product is 39. Find these numbers

(a) -3 and 10 or 13 and 10

(b) 3 and -10 or 3 and 13

(c) 3 and -3 or 3 and 13

(d) -3 and -13 or 13 and 3.

36. The average age of x pupils in a class is 14 years 2 months. A pupil of 15 years 2 months joins the class and the average age is increased by one month. Find x.

(a) 12　　　(b) 6　　　　　　(c) 11　　　(d) 14.

37. If the distance covered by a body in time t seconds is $s = t^3 – 6t^2 – 5t$, what is its initial velocity?

(a) $0ms^{-1}$　　　　　(b) $-4ms^{-1}$　　　　(c) $(3t – 12t – 5)ms^{-1}$　　　　(c) $5ms^{-1}$

38. In a throw of a fair die the probability of obtaining an even number is

(a) 1

39.　　Two fair coins are tossed simultaneously. What is the probability of obtaining *at least 1 tail turns up?*

(d) 1

40.　　One angle of a polygon has each of its angles as 160^0. What is the number of sides of the polygon?

(a) 18　　　　　(b) 36　　　　　(c) 9　　　　　(d) 20

41. One angle of an octagon is 100^0 while the other sides are equal. Find each of these exterior angles.

(a) 80   (b) 60   (c) 140   (d) 40

42. In a right-angled triangle, $\tan \Theta = ¾$, what is the value of $\sin\Theta + \cos\Theta$?

43. If $\sin \Theta$, then   is   =

(a) $\sec \Theta$ (b) $\tan \Theta$ (c) $\sin \Theta$ (d) a $\cos \Theta$

44. The coordinates of the point dividing the line AB (-1, 2) and B(3, 4) extremely in the ratio 3:2 is

(a) (11, 8)   (b) (8, 5)   (c) (5, 11)   (d) (5, 9)

45. The point P (p, 5) lies on the line joining A (1, 2) and B (-4, 7). The ratio AP: AB is

(a) 2:3   (b) 3:2   (c) 4:5   (d) 3:4

46. The ends of a diameter of a circle are (-2, 3) and (4, 7). The equation of the circle is

(a) $x^2 + y^2 – 2x -10y + 15 = 0$

(b) $x^2 + y^2 + 2x – 10y – 13 = 0$

(c) $x^2 + y^2 – 2x – 10y + 15 = 0$ (d) $x^2 + y^2 – 2x -10y -15 = 0$.

47. The centre and radius of the circle with the equation $x^2 + y^2 – 2x + 6y + 5 = 0$ are respectively

(a) (1, 3) and 5   (b) (3, 1) and $\sqrt{5}$ (c) (1, -3) and $\sqrt{5}$ (d) (3, -1) and 5.

48. Evaluate

(b) -1   (c) 1

49. When the expression $pm^2 + qm + 1$ is divided by $(m - 1)$, it has a remainder of and when divided by $(m + 1)$ the remainder is 4. Find p and q respectively.

(a) 2, 1   (b) 2, -1   (c)-1, 2   (d) 1, 2.

50.   If α and β are the roots of the equation $x^2 - 5x - 7 = 0$. $\alpha^2\beta + \alpha\beta^2$ is

(a) 35   (b) -35   (c) 42   (d) -42.

51.   If α and β are the roots of the equation $2x^2 + 7x + 3 = 0$. Obtain the equation whose roots are $\frac{1}{\alpha^2}$ and $\frac{1}{\beta^2}$

(a) $9x^2 - 37x + 4 = 0$

(b) $4x^2 + 49x + 9 = 0$

(c) $2x^2 - 7x + 3$

(d) $3x^2 - 37x - 2 = 0$

52. If one root of the equation $27x^2 + bx + 8 = 0$ is the square of the other. Find b

(a) 20   (b) 25   (c) -30   (c) -25

53. For what values of m does the equation $x^2 + 9 = (4m + 1)x$ have equal roots?

(a) -2, 10   (b) -2, 10   (c) 2, -10   (d) 2, 10.

54. If $\log_{10}2 = y$, express $\log_{10}12.5$ in terms of y.

(a) $2 - 3y$ (b) $2(1 - y)$ (c) $2(1 + y)$ (d) $2 + 3y$.

55. Simplify

56. Find the roots of $x^3 - 2x^2 - 5x + 6 = 0$.

(a) 1, 3, -2   (b) 1, 2, -3   (c) -1, -2, 3   (d) -1, 2, 3

57. Find the remainder when $3x^3 + 5x^2 - 11x + 4$ is divided by $x + 3$

(a) 4   (b) 1   (c) -1   (d) -4

58. What factor is common to all the expressions $x^2 - x$, $2x^2 - 1$ and $x^2 - 1$?

(a) x   (b) x -1   (c) x + 1   (d) no common factor.

59. In class of 40 students, 32 offers Mathematics, 24 offer Physics and offer neither Mathematics nor Physics. How many offer both Mathematics and Physics?

(a) 4   (b) 16   (c) 20   (d) 8

60. The probability of a student passing any exam is 2/3. If the student takes three exams, what is the probability that he will not pass any of them?

(a) 2/3   (b) 4/9   (c) 8/27   (d) 1/27

61. Find the mean of the data: 7, -3, 4, -2, 5, -9, 4, 8, -6, 12.

(a) 3   (b) 4   (c) 1   (d) 2

62. Find the value of *a* if the line $2y - ax + 4 = 0$ is perpendicular to the line y + (x/4)-7=0

(a) -4   (b) 4   (c) 8   (d) -8

63. A hunter 1.6m tall, views a bird on top of a tree at an angle of 45 degrees. If the distance between the hunter and the tree is 10.4m, find the height of the tree.

(a) 9.0m   (b) 12.0m   (c) 8.8m   (d) 10.4m

64. The sum of the interior angles of a polygon is 20 right angles. How many sides does the polygon have?

(a) 12   (b) 20   (c) 40   (d) 10

65. A bucket is 12cm in diameter at the top, 8cm in diameter at the bottom and 4cm deep. Calculate its volume.

(a) 304 π/3 cm^3 (b) 144 π/3 cm^3 (c) 128 π/3 cm^3 (d) 72 π/3 cm^3

66. If tan   = 4/3, calculate $\sin^2 \theta - \cos^2 \theta$

(a) 16/25   (b) 24/25   (c) 7/25   (d) 9/25

67. Make *r* the subject of the formula given that x/(r+a) = ar

(a) a^2/(x-a)   (b) a^2/(x+a)   (c) a/(x-a)   (d) a/(x+a) **69.** The binary operation * is defined on the set of integers p and q by p * q = pq + p + q.

Find 2 * (3 * 4).

(a) 59   (b) 19   (c) 67   (d) 38

70. The inverse function f(x) = 3x + 4 is

(a) (x-4)/3   (b) (x-5)/5   (c) (x+3)/4   (d) (x+4)/3

71. If the 9th term of an A.P. is five times the 5th term, find the relationship between a and d.

(a) 2a + 2 = 0   (b) 3a + 5d = 0   (c) a + 3d = 0   (d) a + 2d = 0.

72. Evaluate $\int \sin 3x \, dx$

(a) (2/3) cos 3x + c   (b) (1/3) cos 3x + c   (c) (-1/3) cos 3x + c   (d) (-2/3) cos 3x + c

75. Find the derivative of y = $\sin^2$ (5x) with respect to x.

(a) 10 sin 5x cos 5x   (b) 5 sin 5x cos 5x   (c) 2 sin 5x cos 5x   (d) 15 sin 5x cos 5x

76. A circle with radius 5cm has its radius increasing at the rate of 0.2 m/s. What will be the corresponding increase in the area?

(a) 2π (b) 5π (c) π (d) 4 π

77. The slope of the tangent to the curve y = 3x^2 – 2x + 5 at the point (1, 6) is

(a) 4   (b) 1   (c) 6   (d) 5

78. If dy/dx = 2x – 3 and y = 3 when x = 0, find y in terms of x.

(a) $2x^2 - 3x$ (b) $x^2 - 3x$ (c) $x^2 - 3x - 3$ (d) $x^2 - 3x + 3$

79. Evaluate: (0.21 x 0.072 x 0.00054) ÷ (0.006 x 1.68 x 0.063), correct to 4 s.f.

(a) 0.01286   (b) 0.01285   (c) 0.1286   (d) 0.1285

80. If log 10 to base 8 = X, evaluate log 5 to base 8 in terms of X.

(a) (1/2) X   (b) X – (1/4)   (c) X – (1/3)   (d) X – (1/2)

81. If $\{(a^2b^{-3}c)^{(3/4)})/a^{-1}b^{-4}c^5\} = a^pb^qc^r$. What is the value of p + 2q?

(a) (5/2)   (b) –(5/4)   (c) –(25/4)   (d) -10

82. A trader bought 100 oranges at 5 for N1.20, 20 oranges got spoilt and the remaining were sold at for N1.50. Find the percentage gain or loss.

(a) 30% gain   (b) 25% gain   (c) 30% loss   (d) 25% loss

83. If 2_9 x $(3Y)_9 = 3_5$ x $(3Y)_5$, find the value of Y.

(a) 4   (b) 3   (c) 2   (d) 1

84. If m*n = (m/n –n/m) for m, n belongs to R, evaluate -3*4.

(a) -25/12   (b) -7/12   (c) 7/12   (d) 25/12

85. Factorize completely $X^2 + 2XY + Y^2 + 3X + 3Y - 18$

(a) (x+y+6) (x+y+3)   (b) (x-y-6) (x+y+3)   (c) (x-y+6) (x-y-3)   (d) (x+y-6) (x+y+3)

86. Tope bought X mangoes at N5.00 each and some apples at N4.00 each. If she bought twice as many apples as mangoes and spent at least N65.00 and at most N130.00, find the range of values of X.

(a) 4≤X≤5   (b) 5≤X≤8   (c) 5≤X≤10   (d) 8≤X≤10

87. Express $1/(x^3 - 1)$ in partial fraction.

(a) $1/3 \{(1/x\text{-}1) - (x - 2/x^2 - x + 1)\}$

(b) $1/3 \{(1/x - 1) - (x + 2/x^2 + x + 1)\}$

(c) $1/3 \{(1/x - 1) - (x - 2/x^2 + x + 1)\}$

(d) $1/3 \{(1/x - 1) - (x - 2/x^2 - x - 1)\}$

88. Divide $4x^3 - 3x - 1$ by $2x - 1$.

(a) $2x^2 - x + 1$ (b) $2x^2 - x - 1$ (c) $2x^2 + x + 1$ (d) $2x^2 + x - 1$#

89. In ΔMNO, MN = 6 units, MO = 4 units and NO = 12 units. If the bisector of N and M meets NO at P, calculate NP.

(a) 4.8 units   (b) 7.2 units   (c) 8.0 units   (d) 18.0 units

90. From a point P, the bearings of two points Q and R are 67^0W and N23^0E respectively. If the bearing of R from Q is N68^0E and PQ = 150m, calculate PR.

(a) 120m   (b) 140m   (c) 150m   (d) 160m

91. A two-digit number, say AB was mistakenly written as BA by an overworked student. Due to this error, the student was working with a number bigger in value, and its difference with the actual number is one less than the actual number. If the sum of the two digits is half a score. What is the actual number?

(a) 43   (b) 34   (c) 73   (d) 37

92. Evaluate   . Where letter z = $\pi/4$.

(a) $\sqrt{2} + 1$ (b) $\sqrt{2} - 1$ (c) $-\sqrt{2} - 1$ (d) 1 -

93. Let P = {1, 2, u, v, w, x}; Q = {2, 3, u, v, w, 5, 6, y} and R = {2, 3, 4, v, x, y}.

Determine (P - Q) n R.

(a) {1, x}   (b) {x, y}   (c) {x}   (d) 0.

93. If $(2\sqrt{3} - \sqrt{2})/(\sqrt{3} + 2\sqrt{2}) = m + n\sqrt{6}$, find the values of m and n respectively.

(a) 1, -2   (b) -2, 1   (c) -2/5   (d) 2, 3/5

94. A man wishes to keep his money in a savings deposit at 25% compound interest so that after three years he can buy a car for N150,000. How much does he need to deposit?

(a) N112,000.50   (b) N96,000.00   (c) N85,714.28   (d) N76,800.00

95. If $314_{10} - 256_7 = 340_x$, find x.

(a) 7   (b) 8   (c) 9   (d) 10

96. The third term of an A.P. is $4x - 2y$ and the 9th term is $10x - 8y$. Find the common difference.

(a) $19x - 17y$ (b) $8x - 4y$ (c) $x - y$ (d) $2x$

97. A trader realizes $10x - x^2$ naira profit from the sale of x bags of corn. How many bags will give him the desired profit?

(a) 4   (b) 5   (c) 6   (d) 7

98. Solve the inequality $2 - x > x^2$

(a) $x < -2$ or $x > 1$ (b) $x > 2$ or $x < -1$ (c) $-1 < x < 2$ (d) $-2 > x < 1$

99. If α and β are the roots of the equation $3x^2 + 5x - 2 = 0$, find the value of $1/\alpha + 1/\beta$.

(a) -5/3   (b) -2/3   (c) ½   (d) 5/2

100. An equilateral triangle of side$\sqrt{3}$ cm is inscribed in a circle. Find the radius of the circle.

(a) 2/3 cm   (b) 2 cm   (c) 1 cm   (d) 3 cm

101. If $y = 2x - \sin 2x$, find dy/dx when $x = \pi/4$.

(a) π (b) $-\pi$ (c) $\pi/2$ (d) $-\pi/2$

102. If the volume of a hemisphere is increasing at a steady rate of 18 π m/s, at what rate is its radius changing when it is 6m?

(a) 2.30 m/s   (b) 2.00 m/s   (c) 0.25 m/s   (d) 0.20 m/s

103. If the mean of the numbers 0, (x + 2), (3x + 6) and (4x + 8) is 4, find their mean deviation.

(a) 0   (b) 2   (c) 3   (d) 4

104. In how many ways can the word MATHEMATICS be arranged?

(a) 11!/(9!2!)   (b) 11!/(9!2!2!)   (c) 11!/(2!2!2!)   (d) 11!/(2!2!)

105. The variance of x, 2x, 3x, 4x and 5x is

(a) x$\sqrt{2}$ (b) 2x^2 (c) x^2 (d) 3x

106. Find the sum of the range and the mode of the set of numbers: 10, 9, 10, 9, 8, 7, 7, 10, 8, 10, 8, 4, 6, 9, 10, 9, 10, 9, 7, 10, 6, 5.

(a) 16   (b) 14   (c) 12   (d) 10

107. In how many ways can a delegation of 3 be chosen from among 5 men and 3 women, if at least one man and at least one woman must be included?

(a) 15   (b) 28   (c) 30   (d) 45

108. Simplify (

(a) 84.7   (b) 70.7   (c) 217.7   (d) 168.7

109. Find the range of these fractions: 1/6, 1/3, 3/2, 2/3, 8/9 and 4/3

(a) ¾   (b) 5/6   (c) 7/6   (d) 4/3

110. Find the number of ways of selecting 8 subjects from 12 subjects for an examination.

(a) 490   (b) 495   (c) 496   (d) 498

111. Teams P and Q are involved in a game of football. What is the probability that the game ends in a draw?

(a) 2/3   (b) ½   (c) 1/3   (d) ¼

112. Find the rate of change of the volume V of a sphere with respect to its radius r, when r = 1.

(a) $12\,\pi$ (b) $4\,\pi$ (c) $24\,\pi$ (d) $8\,\pi$

113. Differentiate $(2x + 5)^2\,(x – 4)$ with respect to x.

(a) $4\,(2x + 5)\,(x – 4)$

(b) $4\,(2x + 5)\,(x – 3)$

(c) $(2x + 5)\,(2x – 13)$

(d) $(2x + 5)\,(6 – 11)$

114. P (-6, 1) and Q (6, 6) are the two ends of the diameter of a given circle. Calculate the radius.

(a) 6.5 units   (b) 13.0 units   (c) 3.5 units   (d) 7.0 units

115. Find the number of sides of a regular polygon whose interior angle is twice the exterior angle.

(a) 6   (b) 2   (c) 3   (d) 8

116. A sector of a circle of radius 7.2 cm which subtends an angle of 300^0 at the centre is used to form a cone. What is the radius of the base of the cone?

(a) 8 cm   (b) 6 cm   (c) 9 cm   (d) 7 cm

117. Solve the equations: $m^2 + n^2 = 29$, $m + n = 7$

(a) (2,3) and (3,5)   (b) (2,5) and (5,2)   (c) (5,2) and (5,3)   (d) (5,3) and (3,5)

118. Find the principal which amounts to N5,500 at a simple interest in 5 years at 2% per annum.

(a) N4,900   (b) N5,000   (c) N4,700   (d) N,4800

119. If x = (y/2), evaluate $\{(x^3/y^3) + (1/2)\} \div \{(1/2) - (x^2/y^2)\}$

(a) 5/8   (b) 5/2   (c) 5/4   (d)5/16

120. Expression $ax^2 + bx + c$ equals 5 at x = 1. If its derivative is 2x + 1, what re the values of a, b, c respectively?

(a) 1, 3, 1   (b) 1, 2, 1   (c) 2, 1, 1   (d) 1, 1, 3

121. Evaluate $\int_{-2}^{1}(x - 1)^2\, dx$

(a) -10/3   (b) 7   (c) 9   (d) 11

122. If the minimum value of $y = 1 + hx - 3x^2$ is 13, find h.

(a) 13   (b) 12   (c) 11   (d) 10

123. In a youth club with 94 members, 60 like modern music, and 50 like traditional music. The number of members who like both traditional and modern music is three times that of those who do not like any type of music. How many members like only one type of music?

(a) 8   (b) 24   (c) 62   (d) 86

124. Simplify $3(2^{n+1}) - 4(2^{n-1}) \div 2^{n+1} - 2^n$

(a) 2^{n-1} (b) 2^{n-1} (c) 4   (d) ¼

125. If (x – 1), (x + 1) and (x – 2) are factors of the polynomial $ax^3 + bx^2 + cx - 1$, find a, b, c in that order.

(a) -1/2, 1, ½   (b) ½, 1, 1/2   (c) ½, 1, -1/2   (d) ½, -1, 1/2

ANSWERS: MATHEMATICS

1. A	38. C	75. A	112. B
2. A	39. C	76. A	113. C
3. C	40. C	77. A	114. A
4. B	41. C	78. D	115. A
5. B	42. A	79. A	116. B
6. A	43.	80. C	117. B
7. A	44.	81. D	118. B
8. A	45.	82. B	119. B
9. C	46.	83. D	120. D
10. B*	47. B*	84. C	121. C
11. D	48. A	85. A	122. C
12. D	49. B*	86. C	123. C
13. B	50. B	87. C	124. C
14. A	51. B	88. D	125. D
15. A*	52. A	89. B	
16. A	53. B	90. C	
17. D	54.	91. D	
18. A	55. B	92. B	
19. A	56. B	93. B	
20. B	57. A	94. D	
21. C	58. B	95. A	
22. B	59. D	96. C	
23. B	60. C	97. B	
24. B	61. D	98. D	
25. A	62. D	99. D	
26. A	63. C	100. C	
27. B	64. D	101. D	
28. B	65. A	102. C	
29. B	66. A	103. C	

30. D	67. C	104. C
31. B	68. D	105. B
32. A	69. A	106. A
33. D	70. A	107. D
34. B	71. D	108. A
35. D	72. C	109. D
36. A	73. C	110. B
37. C	74. A	111. D

ECONOMICS

1. When a demand curve is vertical, it indicates that the price elasticity of demand is
   (a) perfectly inelastic or zero elasticity
   (b) perfectly elastic or infinite elasticity (c) imperfectly elastic (d) imperfect elastic.

2. If total fixed cost is the same regardless of output, the average fixed cost will be (a) decreasing   (b) minimum   (c) maximum   (d) increasing.

3. Calculate the cross elasticity of demand between goods X and Y if the price of X changes from N20 to N30 per unit and demand for Y changes from 100 to 70 units.
   (a) 0.6   (b) 1.67   (c) 1.76   (d) 6

4. Goods X and Y above can be described as
   (a) complementary goods   (b) substitute   (c) joint goods   (d) composite goods.

5. Which of the following is a disadvantage of socialism?
   (a) protection of the disadvantaged
   (b) consumes have no choice
   (c) no exploitation
   (d) equitable distribution of income.

6. An economic system in which the means of production are owned by all the people but with control usually resting in a centralized state is called….
   (a) capitalism   (b) market economy   (c) deregulated economy   (d) socialism.

7. Which of the following will cause a change in demand?
   (a) change in the price of the product
   (b) change in technology
   (c) change in population
   (d) change in government policy.

8. Which of the following will not cause abnormal demand curve?
   (a) normal goods
   (b) inferior goods
   (c) expectation of future rise in price (d) articles of ostentation.

9. Which of the following is not an assumption of the cardinal school of thought?

(a) fixed marginal utility of money

(b) utility is measurable

(c) diminishing marginal utility (d) total utility is a function of supply.

10. Which of the following is not true?

(a) when total utility is maximized marginal utility is zero

(b) marginal utility usually rise above total utility

(c) when total utility is decreasing marginal utility is negative

(d) marginal utility is below total utility except when first unit is consumed.

11. Which of the following is true for a consumer at equilibrium?

(a) $MU_x/P_x > MU_y/P_y$

(b) $MU_x/P_x < MU_y/P_y$

(c) $MU_x/P_y = MU_y/P_x$

(d) $MU_x/P_x = MU_y/P_y$

12. If a consumer prefers good A to B and he cannot prefer B to A, then the consumer is said to be

(a) transitive   (b) consistent   (c) ordinal   (d) axiomatic.

13. The process of reasoning from specific facts to general conclusion in economics is classified as

(a) deductive method   (b) positive method   (c) normative method   (d) inductive method.

14. Mr Adebayo has the options of buying either a house or a Mercedes Benz car for N2.5m plus N0.5m running cost. If he decides to buy the Mercedes Benz car, his opportunity cost is

(a) N2.5m   (b) N3.0m   (c) the house   (d) the car.

15. The ultimate objective of economics is to

(a) make efforts to understand how the economy works

(b) make the best use of scarce resources

(c) organize production at the lowest cost

(d) decide under what circumstances the government should intervene in the economy

16. A large standard deviation is an indication of

(a) the size of the sample

(b) a wide spread around the mean

(c) a wide difference between the mean and the mode (d) the difference between the highest and lowest values.

17. A rising short-run average cost is a result of

(a) falling marginal cost

(b) diminishing returns (c) economies of scale (d) rising fixed cost.

18. The transfer of public shareholding in corporation to private enterprise is

(a) concession   (b) incorporation   (c) commercialization   (d) privatization.

19. Trade takes place because of

(a) marginal utility   (b) marginal cost   (c) marginal revenue   (d) comparative advantage.

20. The major problem confronting a sole proprietor is

(a) high level of risk

(b) limited expertise

(c) limited source of capital (d) high taxation.

21. If government expenses exceed revenue, this results in

(a) balanced budget   (b) national debt   (c) budget deficit   (d) budget surplus.

22. The supply curve of a perfectly competitive firm is identical to

(a) total cost curve   (b) rising portion of the marginal cost curve   (c) variable cost curve.

23. The active population of a country determines the size of its

(a) economic resources   (b) national income   (c) force   (c) voting pattern

24. Limited resources + unlimited wants = what?

(a) possibilities   (b) demand   (c) supply   (d) scarcity

25. Unemployment as a result of technological improvement lead to replacement of labour by machinery is called (a) frictional unemployment

(b) seasonal unemployment

(c) residual unemployment (d)

structural unemployment.

26. In economics, the term opportunity cost refers to (a) the monetary cost of a good or service

    (b) the money cost of hiring an economic resource

    (c) the value of a good or service forgone

    (d) the money of cost of providing a good or service.

27. The economic problem of how to produce refers to the decision of

    (a) who should be given the opportunity to produce goods and services

    (b) how many people in the population are to be employed

    (c) how much of current production should go toward consumption rather than saving
       (d) which of the production techniques should be used.

28. *Ceteris paribus* is used in economics when (a) two variables are negatively related

    (b) two variables are positively related

    (c) the value of the independent variable affecting the dependent variable is held constant
       (d) the value of the dependent variable affecting the independent variable is held constant.

29. During inflation

    (a) borrowers gain   (b) borrowers lose   (c) lenders gain   (d) lenders lose.

30. Basic economic decisions as a result of problem of scarcity does not include

    (a) what to produce   (b) how to produce   (c) for whom to produce   (d) how to consume.

31. Profit is a major feature of (a) a market economy

    (b) a socialist economy

    (c) a traditional economy

    (d) an authoritarian economy

32. When the quantity demanded equals quantity supplied, there is

    (a) substitution   (b) equilibrium   (c) transformation   (d) marginalization.

33. If the price elasticity of demand is greater than one, then the demand is

    (a) inelastic   (b) unit elastic   (c) elastic   (d) none of the above.

34. The utility levels at different points on an indifference curve is (a) zero   (b) equal   (c) unequal   (d) one.

35. Which of these areas of economics studies the economic actions of individuals, small groups of individuals or firms?

    (a) macroeconomics

(b) microeconomics (c) positive economics (d) normative economics.

36. What is the harmonic mean of 2, 4, 6 and 8?

    (a) 3.84   (b) 1.04   (c) 0.26   (d) 0.96

37. What is the quadratic mean of 2, 4, 6 and 8?

    (a) 5.48   (b) 10.95   (c) 30   (d) 2.74

38. Which of the following is a disadvantage of range as a measure of dispersion?

    (a) it is not difficult to calculate

    (b) it is difficult to understand

    (c) it gives rough estimate of the difference between two values (d) it is sensitive to extreme values.

39. Which of the following is a major difference of arithmetic mean?

    (a) it can be obtained graphically obtained

    (b) it ignores extreme values (c) it uses all the items in the data (d) it has ability to conceal some facts.

40. In modern economics, the Malthusian theory of population is ineffective because of

    (a) birth control measures

    (b) government policies

    (c) natural disasters (d) technical progress.

41. If a consumer willing to pay N100 per apple but the market price of apple is N70, what is the consumer surplus if four apples are bought?

(a) N400   (b) N120   (c) N280   (d) N680

42. Demand for a product with many uses is described as
   (a) joint demand
   (b) competitive demand
   (c) independent demand (d) composite demand.

43. Which of the following is true?
   (a) marginal cost curve is always above average total cost curve
   (b) average fixed cost curve is always less than average variable cost
   (c) when marginal cost is less than average variable cost, average variable cost and average total cost fall
   (d) marginal cost equal to average variable cost when average total cost is at maximum.

44. The supply of Ph D holders in the short-run is likely to be
   (a) perfectly inelastic   (b) elastic   (c) perfectly elastic   (d) unitary.

45. In the federal government of Nigeria comes up with a policy which favours the production of capital good rather than consumer goods, the government can be said to be solving the society's problem of …. (a) for whom to produce
(b) what to produce
(c) how to produce
(d) when to produce.

46. Which of the following is not an assumption of the cardinal school of thought?
   (a) fixed marginal utility of money
   (b) utility is measurable
   (c) diminishing marginal utility
   (d) total utility is a function of supply.

47. Activities in the downstream oil sector include….
   (a) marketing of refined product
   (b) exploration of crude oil
   (c) sinking of oil well in the off-shore (d) sinking of oil well in the onshore.

48. If income rises from N20,000 to N40,000 and quantity demanded increases from 80 units to 160 units, what is the income elasticity of demand?
   (a) 0.5   (b) 1   (c) 2   (d) 4.0

49. If marginal utility of the last unit of commodity A at a price of N4 is 32 and that of commodity B at N8 is 48 the consumer will be at equilibrium when:
   (a) the price-quantity ratios are equal
   (b) equal amounts of A and B are consumed (c) less of B and more of A are consumed (d) less of A and more of B are consumed.

50. If Qd = 185-20p and Qs = 85 + 30p. Find equilibrium price and quantity.
   p = -2, Qd = 145 and Qs = 145
   (a) P = 4, Qd = 165 and Qs = 165
   (b) p = 2, Qd = -145 and Qs = 145 (d) p = 2, Qd = 145 and Qs = 145.

51. If the income elasticity of demand is less than zero, then the good is
   (a) inferior   (b) normal   (c) perfect   (d) imperfect.

52. If the cross elasticity of two commodities X and Y is less than zero, then the commodities are
   (a) compliments   (b) substitutes   (c) inferior   (d) luxuries.

53. When there is a change in the demand of a commodity…
   (a) the demand curve shifts to the right or left
   (b) the demand curve does not shift to the right of left (c) there is a movement along the demand curve (d) none of the above.

54. A set of two or more indifference curve indicating different utility levels can be called….
   (a) indifference graph   (b) Indifference spectrum   (c) indifference map
   (c) indifference horizon.

55. The elasticity of supply of perishable goods is
   (a) unitary   (b) inelastic   (c) zero   (d) elastic.

56. The demand for factors of production is an example of
   (a) joint demand   (b) competitive demand   (c) derived demand   (d) composite demand.

57. A shift in supply curve indicates that a different quantity will be supplied at each possible price because
   (a) consumers are willing to pay higher prices
   (b) supply is facing competition
   (c) other factors than price have changed (d) price has changed.

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58. Normative economics deals with
    (a) what is and what not should be
    (b) facts and not figures (c) facts and figures (d) value judgment.
59. The short-run period in production is defined as a period when
    (a) there is at least one fixed factor
    (b) all costs of production must be covered (c) the output cannot be varied (d) current output is not profitable.
60. Which of the following is not a type of elasticity?
    (a) price elasticity of demand
    (b) income elasticity of demand
    (c) cross price elasticity of demand (d) input elasticity of demand.
61. The following is NOT a reason for the existence of small firms
    Scale of production is limited by size of the market
(a) Expansion brings diminishing returns
(b) Small firms can provide personal services
(c) All of the above
62. Inferior goods are referred to in Economics as goods
    (a) Whose quality is low
    (b) Consumed by very poor people
    (c) Whose consumption falls when consumer's income increases
    (d) Which satisfy only the basic needs
63. Which is NOT a direct effort to increase agricultural production in Nigeria?
    (a) Operation Feed the Nation
    (b) Nigerian Youth Service Corps
    (c) Increased loans to farmers and cooperatives
    (d) Research in Agric & Extension services
64. The foreign exchange market is a market where
    (a) Graded commodities like wheat, flour e.t.c. are bought and sold
    (b) Currencies are sold and bought
    (c) Treasury bills are sold and bought
    (d) Government bonds are sold and bought
65. Which of the following can be regarded as a liability of a commercial bank?

(a) advances (b) deposits   (c) treasury bills   (d) overdrafts

66. Tax which takes higher percentage from a higher income is called

(a) A regressive tax   (b) a progressive tax   (c) a proportional tax
(d) an indirect tax

67. Disposable income is the same thing as

(a) Personal income minus personal savings
(b) Personal income minus taxes
(c) National income minus depreciation
(d) Exports minus imports

68. Marginal cost is

(a) Lowest cost of producing goods
(b) The cost of production of the most efficient firm in the industry
(c) Cost of production of the most inefficient firm in the industry (d) Cost of production at which the minimum profit is obtained by the firm

69. Which of the following is NOT a form of business organization?

(a) A sole proprietorship   (b) cartel   (c) partnership   (d) joint stock

70. Which of the following sector of the economy is estimated to be the largest employer of labour in the country?
   (a) Construction   (b) agriculture   (c) distribution   (d) mining and petroleum

71. Economics is called a social science because it is
   (a) A branch of social studies
   (b) A study of the ways man devices to satisfy his unlimited wants from unlimited resource
   (c) dismissal science in Malthusian sense
   (d) The study of human wants by the means of scientific method of observation

72. Less developed countries obtain foreign exchange mainly from the export of
   (a) Manufactured goods
   (b) Processed and semi-processed commodities
   (c) Invisible items
   (d) Primary product

73. Which of the following is a term used to describe a payment representing a surplus in excess of transfer costs?
   (a) Interest rates   (b) opportunity costs   (c) economic costs   (d) indirect costs

74. The advantage of sole proprietorship is as follow
   (a) It is always successful
   (b) Continuity is no problem
   (c) Control and supervision is under one man
   (d) Funds are easy to obtain

75. Which of these would NOT increase the population of a country?
   (a) Increase in death rate
   (b) Decrease in birth rate
   (c) Emigration
   (d) Migration

76. A rational consumer will adjust his spending pattern so that
   (a) He buys only the item that gives him most total satisfaction
   (b) The marginal utility he gets from the last unit of item is the same
   (c) The marginal utility he gets from the last Naira spent on each item is the same
   (d) The total utility he gets from each item is the same

77. Bond holders are treated more favourably than shareholders because

(a) They are not liable for the company's losses

(b) They have greater voice in the electing board of the directors

(c) They control the management

(d) They have a poor claim on the company's assets

78. If two commodities are good substitutes for one another e.g. butter and margarine, an increase in the demand for one will reduce the demand for the other. This type of demand is called

(a) Composite demand   (b) elastic demand   (c) derived demand   (d) inelastic demand

79. When the price of a commodity is below the equilibrium price, the quantity demanded will exceed the quantity supplied. Such a situation is referred to as

(a) Elastic supply   (b) joint demand   (c) excess supply   (d) derived demand

80. One of the reason why the condition of supply of a commodity may change is

(a) A change in real income

(b) Changes in the technique of production

A change of fashion or taste

Change in population

81. The Central Bank controls the activities of other banks by all but one of the following

(a) The use of bank rate

(b) The purchase or sale of government bonds on the open market

(c) Special deposit

(d) The use of directives

82. Which of the following is not a direct tax?

(a) Company income tax   (b) capital tax   (c) purchase tax   (d) personal income tax

83. Which of the following is not an indirect tax?

(a) Excess duty   (b) company tax   (c) import duty   (d) sales tax

84. The value of money is generally measured in reference to

(a) The interest rate charged on bank loans

(b) The general price level

(c) The size of country's gold stock

(d) The level of economic development in a country

85. Which of the following type of capital is NOT rewarded by dividends?

(a) Ordinary shares   (b) preference shares   (c) cumulative shares   (d) depentures

86. Which of these is not usually the function of the wholesaler?

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(a) Transport   (b) storage   (c) advertising   (d) branding

87. Net national income is
    (a) Gross national income minus depreciation
    (b) Gross domestic product plus net income from abroad
    (c) Nominal national income divided by the price level
    (d) Gross national income divided by the total population

88. When the average physical product curve is rising, the marginal physical product is (a) Below it   (b)above it   (c) falling   (d) none of the above

89. Which of the following assets of commercial banks does not yield revenue?
    (a) Money in the tills of the bank
    (b) Money at call
    (c) Treasury bills
    (d) Treasury certificates

90. Which of the following financial institutions cannot direct tax loans to individuals?
    (a) The Agricultural Bank
    (b) The Industrial Bank
    (c) The central Bank
    (d) The Cooperative Bank

91. The price mechanism
    (a) Regulates supply and demand
    (b) Rewards producers
    Rations consumers
    Allocates scarce resources

92. A typical corporate form of business organization is owned by
    (a) President of the country
    (b) Shareholders
    (c) The general manager and the executives
    (d) A local government

93. Inflation can be curbed by
    (a) Increasing aggregate demand
    (b) Paying higher wages
    (c) Increasing government expenditures
    (d) Reducing aggregate demand

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94. Production in economics occur when
(a) Commodity or service is sold
(b) Utility is created or added
(c) A commodity is manufactured
(d) All of these

95. International trade arise because
(a) One country has more abundant resources
(b) One country has the technology to produce the commodity whilst the other does not
(c) One country has manpower to produce the commodity than the other country (d) All of the above

96. Nigeria earns the major part of her foreign exchange from the export of
(a) Manpower to other countries
(b) Crude oil
(c) Petroleum products
(d) Groundnuts and cotton

97. The fundamental problem of economics is
(a) Money (b) poverty (c) unemployment (d) the scarcity of resources relative to wants

98. Division of labour is limited by the
(a) Available raw materials
(b) Size of the labour force
(c) Size of a labour firm
(d) Per capital income and number of potential buyers

99. Which of the following is not a determinant of changes in supply?
(a) Changes in the cost of production
(b) Technical progress
(c) Weather
(d) Changes in the number of buyers

100. Money becomes a poor store of value in a period of

(a) deflation   (b) stable prices   (c) recession   (d) inflation

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ANSWERS: ECONOMICS

1. A	38. C	75. A
2. A	39. D	76. C
3. B	40.	77. D
4. A	41. B	78. D 5. B 42. D
	79. D	
6. D	43.	80. B 7. A
44.		81. D
8. A	45. B	82. C
9. 46.		83. B 10. B 47. A
84. B	11.	48. B 85.
D		
12.	49.	86. D
13.	50. D	87. A
14.	C	51. A 88. B
15.	B	52. B 89. A
16.	B	53. A 90. C
17.	D	54. A 91. D
18.	D	55. B 92. B
19.	D	56. D 93. D 20. C
	57. D	94. D
21.	C	58. D 95. D
22.	59. A	96. B
23.	B	60. D 97. D 24. D
	61. B	98. D
25. A	62. C	99. D
26. C	63. B	100. D
27. D	64. B	28. C 65. B
29. D	66. B	30. D 67. B
31. A	68. D	32. B 69. B
33. C	70. B	34. A
71. B	35. B	72. D 36. A
73.		
37. A	74. C	

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