



# UNIVERSITY OF PORT HARCOURT

POST UTME PAST QUESTIONS FOR SCIENCE

# UNIPOST POST UTME PAST QUESTIONS FOR MEDICINE, ENGINEERING AND ALL SCIENCES

## UNIPOST 2005/2006 POST UTME QUESTIONS

**Time: 1hr, 15mins**

### SECTION 1:

#### Passage 1

**Read this passage carefully and answer the questions that follow.**

Farming is the most important aspect of agriculture that has attracted attention within the last few years. Agriculture has several other aspects like fishery, livestock and poultry. All these are also important in that they have to do with the production of food items which human beings consume for survival.

In many parts of the world today, farming has been regarded as the mainstay of the economy. Crops such as cocoa, rubber and cotton have been produced in such commercial quantities that they are sold to other countries.

Some countries have better comparative advantage in producing certain farm crops than other countries. In these other countries, there is the need to spend a lot of money on agriculture, particularly farming. Most farmers use outmoded tools. A lot of them have no place to store their crops, most of which are always destroyed by insects and pests before harvest time. All these have adverse effects on their productivity.

The government can do a lot to help farmers. Farmer's cooperative societies can be encouraged and loans can be made available to farmers through government institutions, like banks and Finance Corporation. Farmers can be taught how to build good storage structures for their products. All these and a lot more can help

to improve the conditions of farming in these countries.

1. The most important aspect of agriculture mentioned in the passage is\_\_\_\_.
  - A. Poultry
  - B. Fishery
  - C. Livestock
  - D. Farming
  
2. Farming in many countries today is\_\_\_\_.
  - A. An alternative to poultry
  - B. Of great assistance to the economy
  - C. For those who are out of jobs
  - D. For the illiterates
  
3. Some countries produce more and better crops than others because the farmers in the former\_\_\_\_.
  - A. Are more educated
  - B. Have greater manpower
  - C. Have more modern equipment
  - D. Have more fertile land
  
4. In order to help improve the state of farming, the government should\_\_\_\_.
  - A. Give all farmers enough money to work with
  - B. Sell enough fertilizers to all farmers
  - C. Find ways of financing and modernizing the farming system
  - D. Help farmers with the storage of these crops
  
5. A lot of crops harvested are wasted because farmers\_\_\_\_.
  - A. Allow insects and pests to destroy their crops
  - B. Do not have enough money to invest in harvesters
  - C. Do not have good storage facilities
  - D. Harvest too much at a time

**In questions 6 - 15, choose the option opposite in meaning to the underlined word.**

6. Mr. Jack was most flexible in his instruction.
  - A. Rigid

- B. Correct
- C. of
- D. Upright

7. The University has offered **temporary** accommodation to its staff.

- A. Popular
- B. Permanent
- C. Recognized
- D. Regular

8. Mary complained that she slept on the **coarse** floor.

- A. Smooth
- B. Rough
- C. Bad
- D. Harsh

9. Jim was one of the **spectators** at the concert.

- A. Ushers
- B. Judges
- C. Guests
- D. Performers

10. The governor **declined** to give audience to the journalist.

- A. Ignored
- B. Accepted
- C. Forgot
- D. Rejected

11. The debtor's husband is **liable** for his wife's debts.

- A. Unanswerable
- B. Responsible
- C. Unquestionable
- D. Accountable

12. The lotion recommended by the doctor **soothed** Okon's aching tooth.

- A. Calmed
- B. Extracted
- C. Excited
- D. Worsened

13. The sun cast its **shadow** on the wall.

- A. Reflection
- B. Rays
- C. Resemblance
- D. Substance

14. He was **locked up** for a fort night.

- A. Released
- B. Punished
- C. Remanded
- D. Locked out

15. The lady acted **courageously** when thieves attacked her.

- A. Shyly
- B. Fearlessly
- C. Indiscreetly
- D. Timidly

In questions 16-31 choose the option nearest in meaning to the underlined word or phrase.

16. It is claimed that there is an **extinct** volcano near Jos.

- A. Extinguished
- B. Inactive
- C. Dead
- D. Disused

17. Bola has a **sonorous** voice.

- A. High pitched
- B. Beautiful
- C. Strong
- D. Throaty

18. Some workers went on **rampage** at the trade fair

- A. Turned violent
- B. Robber
- C. Were angry
- D. Demonstrated

19. We have to identify the **protagonists** of the new movement.

- A. Enemies
- B. Leading figures
- C. Opponents
- D. Believers

20. My nephew came in **stealthily** through the back gate.

- A. Briskly
- B. Boldly
- C. Warily
- D. Quietly

21. The distance is not more than twenty kilometres as the **crow flies**.

- A. By the longest route
- B. By the shortest route
- C. By air
- D. By the fastest route

22. Your extreme patience sometimes **infuriates** me.

- A. Impresses
- B. Annoys
- C. Frustrates
- D. Amuses

23. I cannot understand how he suddenly became **audacious** contrary to his nature.

- A. Proud
- B. Bold
- C. Rude
- D. Hostile

24. His has been a life of **make-belief**.

- A. Faith.
- B. Fantasy
- C. Grandeur
- D. Religion

25. Our teacher **seldom** comes late to school

- A. Very often
- B. Always
- C. Frequently
- D. Very hardly

26. At the age of 80, Muse wished he could **put the clock back**.

- A. Stop the clock
- B. Put down the clock
- C. Go back in time
- D. Have more time

27. The Director left his secret file to the secretary in **good faith**.

- A. With proof
- B. In anxiety
- C. In anticipation
- D. In trust

28. The Chief approached the issue with convincing **disinterestedness**.

- A. Lack of interest
- B. Lack of personal interest
- C. Inability to be interested
- D. Unwillingness

29. It is of **fundamental** importance that one sleeps properly.

- A. Undisputed
- B. Basic
- C. Special
- D. Least

30. The man insisted on having no **strings attached** to the agreement.

- A. Financial obligations
- B. Documents
- C. Conditions
- D. More obligations

31. The company has **gone under**.

- A. Suffered some loss
- B. Broken up
- C. Become broke
- D. Become bankrupt

For questions 32-36, fill each gap with the appropriate option from the list following the gap.

32. Every programming language and software package \_\_\_\_\_ limitations.

- A. Have its
- B. Have their
- C. Has its
- D. Has their

33. A programme of good exercise may help a person fight \_\_\_\_\_ cold.

- A. Out
- B. At
- C. With
- D. Off

34. Three quarters of the Physics class \_\_\_\_\_ dramatically.

- A. Improve
- B. Improves
- C. Are improving
- D. Is improving

35. A number of students \_\_\_\_\_ missed the opportunity to reregister.

- A. Is
- B. Have
- C. Do
- D. Will

36. A survey of opinions on how pupils feel about teachers\_\_\_\_\_carried out.

- A. Has been
- B. Have been
- C. Are being
- D. Is been

**In questions 37 - 40 select the option A to D that explains the information conveyed in the sentence.**

37. People may pick flowers in this park

- A. People can pick flowers in this park
- B. People may not wish to pick flowers in this

park

- C. People are prohibited from picking flowers in this park
- D. People cannot pick flowers from this park

38. Tom ought not to have told me

- A. Tom did not tell me but he should
- B. Perhaps Tom, was wrong to have told me
- C. Tom told me but it was wrong of him
- D. It was necessary for Tom not to tell me

39. Bolade would make a mess of cooking the rice

- A. It was typical of Bolade to make a mess of things
- B. Bolade cannot cook
- C. Bolade will not cook the rice well
- D. Bolade does not like cooking rice

40. He can't be swimming all day.

- A. It's possible he is not swimming
- B. It's very likely he is swimming
- C. He does not have the ability to swim all day
- D He would not like to swim all day

## MATHEMATICS

41. The letters of the word MATRICULATION are cut and put in a box. One of the letters is drawn at random from the box. Find the probability of drawing a vowel

- A.  $\frac{2}{13}$
- B.  $\frac{5}{13}$
- C.  $\frac{6}{13}$
- D.  $\frac{8}{13}$
- E.  $\frac{4}{13}$

42. A man invested a total of ₦50,000 in two companies. If these companies pay dividend of 6% and 8% respectively, how much did he invest at 8% if at if the total yield is ₦3,700?

- A. ₦15,000
- B. ₦29,000
- C. ₦21,400
- D. ₦27,800
- E. ₦35,000

43. Find correct to two decimal places

$$100 + \frac{1}{100} + \frac{3}{1000} + \frac{27}{10000}$$

- A. 100.02
- B. 1000.02
- C. 100.22
- D. 100.01
- E. 100.51

44. In a restaurant, the cost of providing a particular type of food is partly constant and partly inversely proportional to the number of people. If the cost per head for 100 people is 30k and the cost for 40 people is 60k, find the cost for 50 people.

- A. 15k
- B. 45k
- C. 20k
- D. 50k
- E. 40k

45. The ration of the length of two similar rectangular blocks is 2:3, if the volume of the larger block is  $351\text{cm}^3$ , then the volume of the other block is

- A.  $234.00\text{cm}^3$
- B.  $526\text{cm}^3$
- C.  $166\text{cm}^3$
- D.  $729\text{cm}^3$
- E.  $104.00\text{cm}^3$

46. Three boys shared some oranges. The first received  $\frac{1}{3}$  of the oranges, the second received  $\frac{2}{3}$  of the remainder. if the third boy received 12 oranges, how many oranges did they share?

- A. 60
- B. 54
- C. 48
- D. 42

47. The angle of elevation of the top of a vertical tower 50 meters high from a point X

on the ground is 30 degrees. From a point Y on the opposite side of the tower, the angle of elevation of the top of the tower is 60 degrees. Find the distance between the points X and V.

- A. 14.43m
- B. 77.73m
- C. 101.03m
- D. 115.47m

48. Peter's weekly wages are ₦20.00 for the first 20 weeks and ₦36.00 for the next 24 weeks. Find his average weekly wage for the remaining 8 weeks of the year if his average weekly wage for the year is ₦30.00

- A. ₦37.00
- B. ₦35.00
- C. ₦30.00
- D. ₦5.00

49. If X is the addition of the prime numbers between 1 and 6 and Y the H.C.F of 6, 9, 15. Find the product of X and Y.

- A. 27
- B. 30
- C. 33
- D. 90

50. A basket contains green, black and blue balls in the ratio 5:2:1. If there are 10 blue balls, find the corresponding new ratio when 10 green and 10 black balls are removed from the basket.

- A. 1:1:1
- B. 4:2:1
- C. 5:1:1
- D. 4:1:1

### PHYSICS

51. Which of the following statement about liquid pressure is NOT correct?

- A. At a point in a liquid is proportional to the depth
- B. At any point in a liquid is the same at the same level
- C. Is exerted equally in all directions at any point
- D. Of a liquid at any point of its container acts in a direction perpendicular to the wall
- E. At a particular depth depends on the shape of the vessel

52. A ship traveling towards a cliff receives the echo of its whistle after 3.5 seconds. A short while later, it receives the echo after 2.5 seconds. If the speed of sound in air under prevailing conditions is 250m/s, how much closer is the ship to the cliff?

- A. 10m
- B. 125m
- C. 175m
- D. 350m
- E. 1000m

53. A force of 16N is applied to a 4.0kg block that is at rest on a smooth horizontal surface. What is the velocity of the block at  $t = 5$  seconds?

- A. 4m/s
- B. 10m/s
- C. 20m/s
- D. 50m/s
- E. 80m/s

54. The distance travelled by a particle starting from rest is plotted against the square of the time elapsed from the commencement of motion. The resulting graph is linear. The slope of this graph is a measure of \_\_\_\_\_

- A. Initial displacement
- B. Initial acceleration
- C. Acceleration
- D. Half the acceleration
- E. Half the initial velocity

55. A small needle is carefully floated on water in a beaker. When a few drops of kerosene are introduced into the water, the needle sinks. Which of the following statements correctly explains the observation?

- I. There is tension on the water surface
  - II. Kerosene reduces the density of water so that the needle becomes denser than water
  - III. Kerosene reduces the surface tension of water
- A. I only
  - B. II only
  - C. III only
  - D. I and. II
  - E. I and III

56. Which of the following is a correct explanation of the inertia of a body?

- A. Ability to overcome the earth's gravity
- B. Reluctance to stop moving
- C. Readiness to start moving
- D. Reluctance to start moving and its readiness to stop moving once it has begun to move
- E. Reluctance to start moving and its reluctance to stop moving once it has begun to move

57. Two masses 40g and 60g are attached firmly to the ends of a light meter rule. The centre of gravity of the system is\_\_\_\_\_.

- A. At the midpoint of the meter rule
- B. 40 cm from the lighter mass
- C. 40 cm from the heavier mass
- D. 60 cm from the heavier mass

58. The mode of heat transfer which does not require a material medium is\_\_\_\_\_.

- A. Conduction
- B. Radiation
- C. Convection
- D. Propagation

59. When two objects P and Q are supplied with the same quantity of heat, the temperature change in P is observed to be twice that of Q, the mass of P is half of Q, the ratio of the specific heat of P to that of Q is

- A. 1:4
- B. 4:1
- C. 1:1
- D. 2:1

60. Which of the following conditions will make water boil at a temperature of 100 degrees Celsius when the atmospheric pressure is 750mmHg?

- A. Increase the external pressure
- B. Reduce the external pressure
- C. Heat more rapidly at the same pressure
- D. Reduce the external pressure by a quarter

## CHEMISTRY

61. Stainless steel is an alloy of:

- A. Carbon, iron and lead
- B. Carbon, iron and chromium
- C. Carbon, iron and copper
- D. Carbon, iron and silver

E. Carbon and iron only

62. Crude petroleum usually seen on some Nigeria's creeks and waterways can be dispersed or removed by\_\_\_\_\_.

- A. Heating the affected parts in order to boil off the petroleum
- B. Mechanically stirring to dissolve the petroleum in water
- C. Pouring organic solvents to dissolve the petroleum
- D. Spraying the water with detergents
- E. Cooling to freeze out the petroleum

61 Solution X, Y and Z have pH values of 3.0, 5.0 and 9.0 respectively. Which of the following statements are correct?

- A. All the solutions are acidic
- B. All solutions are basic
- C. Y and Z are more acidic than X
- D. Y is more acidic than X
- E. Z is the least acidic

64. A molar solution of caustic soda is prepared by dissolving\_\_\_\_\_.

- A. 40g NaOH in 100g of water
- B. 40g NaOH in 1000g of water
- C. 20g NaOH in 500g of solution
- D. 20g NaOH in 1000g of solution
- E. 20g NaOH in 80g of solution

65. Water is said to be hard if it\_\_\_\_\_.

- A. Easily forms ice
- B. Has to be warmed before sodium chloride dissolves in it
- C. Forms an insoluble scum with soap
- D. Contains nitrates
- E. Contains sodium ions

66. Chemical substances are mentioned as\_\_\_\_\_.

- I. Sour taste
- II. Slippery to touch
- III. Yields alkaline gas with ammonium salts
- IV. Has pH less than 7
- V. Turns phenolphthalein pink

Which of the above are NOT typical properties of alkali?

- A. I, IV and V
- B. IV and V
- C. I and IV
- D. II and V

E. II, III and

67. The movement of liquid molecules from the surface of the liquid into gaseous phase is known as\_\_\_\_\_.

- A. Brownian motion
- B. Condensation
- C. Evaporation
- D. Liquefaction

68. Ammonia gas is normally dried with\_\_\_\_\_.

- A. Concentrated sulphuric acid
- B. Quicklime
- C. Anhydrous calcium chloride
- D. Magnesium sulphate

69. Oxygen demanding wastes are considered to be a water pollutant because they;

- A. Deplete oxygen which is necessary for the survival of aquatic organisms
- B. Increase oxygen which is necessary for the survival of aquatic organisms
- C. Deplete other gaseous species which are necessary for the survival of aquatic organisms

70. Mortar is NOT used for underwater construction because\_\_\_\_\_.

- A. It hardens by loss of water
- B. Its hardening does not depend upon evaporation
- C. It requires concrete to harden
- D. It will be washed away by the flow of water

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## **ANSWERS TO 2005/2006 UNIPOINT POST UTME QUESTIONS**

### **SECTION 1:**

1. D 2. B 3. C 4. C 5. C 6. A 7. B 8. A 9. D  
10. B 11. A 12. D 13. B 14. D 15. D 16. C  
17. B 18. A 19. B 20. D 21. B 22. B 23. B  
24. C 25. D 26. C 27. D 28. A 29. 30. C.  
31. D 32. C 33. D 34. D 35. 36. A 37. A  
38. C 39. C

### **MATHEMATICS**

41. C 42. E 43. D 44. D 45. A 46. B 47. D  
48. A 49. B 50. D

### **PHYSICS**

51. D 52. B 53. C 54. C 55. E 56. E 57. C  
58. B 59. B 60. A

### **CHEMISTRY**

61. B 62. C 63. E 64. B 65. C 66. C 67. C  
68. B 69. B 70. A

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# UNIPOINT 2006/2007 POST UTME QUESTIONS

**Time: 40 mins**

## SECTION 1:

### Passage I

**Read this passage carefully and answer the questions that follow.**

In many places in the world today the poor are getting poorer while the rich are getting richer, and the programmes of development planning are foreign and appear to be unable to reverse this trend. Nearly all the developing countries have a modern sector, where the patterns of living and working are similar to those in developed countries. But they also have a non-modern sector, where the pattern of living and working are not one, unsatisfactory, but in many cases are even getting worse.

What is the typical condition of the poor in developing countries? Their work opportunities are so limited that they cannot *work in their way out of their situation*. They are underemployed, or totally unemployed when they do find occasional work their productivity is extremely low. Some of them have land, but often too little land. Many have no land, and no prospect of ever getting any. There is no hope for them in the rural areas and so they drift into the big cities. But there is no work for them in the big cities either and of course no housing. All the same they flock into the cities because their chances of finding some work appear to be greater than in the villages where they are nil. Rural unemployment, then produces mass migration into the cities; rural unemployment becomes urban unemployment.

The problem can be stated quite simply; what can be done to promote economic growth outside the big cities, in the small towns and villages, which still contain 80 to 90% of the total population? The primary need is workplaces, literally millions of workplaces.

2. The gap between the rich and poor widens because there;
- Are no jobs in the rural areas
  - Are no employment opportunities in the city
  - Is not work in the village and the city
  - Is low growth rate in productivity

3. The expression work their way out of their situation means\_\_\_\_\_.
- Walk from one village to another
  - Migrate from village to city
  - Work their way out their village
  - Change their circumstances

4. Migration to the city among villages is caused by\_\_\_\_\_.
- Attraction of the city
  - Low productivity in the village
  - Inadequate job opportunity in the village
  - Shortage of land for cultivation

5. Underemployment among the villagers refers to\_\_\_\_\_.
- Lack of sufficient land for everyone
  - Low productivity when working
  - Fewer people for many jobs
  - More people for fewer jobs

6. Where are the rich getting richer and the poor poorer?
- in nearly all developing countries
  - In a majority of countries in the world
  - In developing countries with modern sectors
  - In countries with nonmodern sectors

### Passage II

**The passage below has gaps numbers 6 to 15. Immediately following each gap, four options are provided. Choose the most appropriate option for each gap.**

The superiority of democracy over other forms of government has long been established. From its Greek origins the term 'democracy' has been defined as a political [A. pattern B. system C. in D. hegemony]

based on fair representation and liberty for the individual.

The \_7\_ [A. principles B. examples C. purposes D. statements ] of liberty and equitable representation are rooted in the definition given by Aristotle of Greek about 2500 years ago. In the words of Aristotle, " the basis of democratic \_8\_ [A. instinct B. population C. law D. state] is liberty. Aristotle also emphasized the democratic \_9\_ [ A. issue B. law C. ideal D. form] of 'freedom based on equity'.

More than 2000 years after Aristotle, the tenets of liberty, justice, and equitable representation continue to \_10\_ [A. draw up B. hold sway C. move on D. swing up]. From the time of the Greek city states to the emergence of the modern nation states, the fundamentals of democratic rule have remained universal \_11\_ [A. values B. practices C. subjects D. elections].

In the western hemisphere, revolutionary struggles were waged to enthrone democracy over \_12\_ [A. liberal B. individual C. autocratic D. collective] rules.

Among these were the American Revolution of 1776, the French Revolution of 1789 and the Haitian Revolution of 1804, the first of such projects to be \_13\_ [A. practiced B. undertaken C. supervised D. introduced] by a black nation. The American President Abraham Lincoln, in the famous Gettysburg Address \_14\_ [A. multiplied B. delineated C. simplified D. complicated] the essential features of democratic \_15\_ [A. governance B. government C. notion D. motion] when he defined democracy as a government of the people, by the people, for the people.

**In Questions 16 to 25 choose the word or phrase which best fills the gap in each sentence.**

16. The student's unrest resulted \_\_\_\_\_ the expulsion of the ringleaders.

- A. To
- B. In
- C. From
- D. With
- E. By

17. I am very sorry \_\_\_\_\_ to attend the meeting yesterday.

- A. For failure
- B. In failing
- C. To having failed
- D. To fail
- E. For failing

18. When you are faced with an examination of this nature, endeavour to keep your mind \_\_\_\_\_ the job and not be distracted for one moment

- A. At
- B. In
- C. For
- D. On
- E. To

19. It all depended on what \_\_\_\_\_.

- A. Does he want
- B. He wants
- C. He does want
- D. He wanted
- E. Did he want

20. James \_\_\_\_\_ reminding that not all that glitters is gold

- A. Needs
- B. Need
- C. Needing
- D. Needs to
- E. need to

21. The dull student took a correspondence course as a means \_\_\_\_\_ his standard in the class.

- A. to improve
- B. for improving
- C. of improving
- D. by improving
- E. to improving

22. The old politicians were discredited because they tried to \_\_\_\_\_ the people's ignorance.

- A. Cash in on
- B. Catch in with
- C. Catch in on
- D. Cash in with
- E. Cash in by

23. That single \_\_\_\_\_, was enough to spoil lifetime good living.

- A. occurrence
- B. ocurrence
- C. occurrence
- D. occurrense
- E. ocurrence

24. Whilst the thief was\_\_\_\_\_the passenger he kept apologizing for the inconvenience he was causing them.

- A. Robbing
- B. Rubbing
- C. Robbering
- D. Rubbering
- E. Robbed

25. The court ordered the lorry driver to pay for the\_\_\_\_\_to my car.

- A. Damages
- B. Heavy damages
- C. Destruction
- D. Many damages
- E. Damage

**PAPER 2: GENERAL SCIENCE**  
**ANSWER ALL QUESTIONS**

1. A solid weighs 4.8g in air, 2.8g in water and 3.2g in kerosene. The ratio of density of the solid to that of the kerosene is\_\_\_\_\_.

- A. 12
- B. 3
- C. 2
- D.  $\frac{3}{2}$
- E.  $\frac{5}{4}$

2. The extension in spring when 5g weight was hung from it was 0,56cm. if Hooke's law is obeyed, what is the extension caused by a load of 20g weight?

- A. 1.12cm
- B. 2.14 cm
- C. 2.52cm
- D. 2.80cm
- E. 2.24cm

3. The ice and steam points of a mercury-in-glass thermometer of centigrade scale and of uniform bore correspond respectively to 3cm and 19em lengths of the mercury thread. When the thread is 12 cm, the temperature is\_ .

- A. 32°C
- B. 48°C

- C. 56°C
- D. 65°C
- E. 75°C

4. An electric cell has an internal resistance of 2 ohms, a current of 0.5 A is found to flow when a resistor of 5 ohms resistance is connected across it. What is the electromotive force of the cell?

- A. 5 volts
- B. 3.5 volts
- C. 2.5 volts
- D. 1 volt
- E. 10 volts

5. A uniform beam HK of length 10m and weighing 200N is supported at both ends. A man weighing, 100N stands at a point P on the beam. if the reactions at H and K are respectively 800N and 400N, then the distance HP is

- A. 4m
- B.  $3\frac{1}{3}$ m
- C. 3m
- D.  $6\frac{2}{3}$ m
- E. 7m

6. What are the units of thermal conductivity?

- A. kg.m.sec<sup>2</sup>
- B. joule.sec<sup>-1</sup>m<sup>-1</sup>k<sup>-1</sup>
- C. kg.m
- D. newton. sec<sup>-1</sup>m<sup>-1</sup>k<sup>-1</sup>
- E. m<sup>1</sup>

7. A 500kg car which was initially at rest travelled with an acceleration of 5m/s<sup>2</sup>, its kinetic energy after 4 seconds was\_\_\_\_\_.

- A. 10<sup>5</sup>J
- B. 2.5 x 10<sup>3</sup>J
- C. 2 x 10<sup>3</sup>J
- D. 5 x 10<sup>3</sup>J

8. An air force jet flying with a speed of 335ms<sup>-1</sup> went past an anti-aircraft gull. How far is the aircraft Ss later when the gun was fired?

- A. 8.38m
- B. 3.350m
- C. 670m
- D. 1675m
- E. 67m

9. In a D.O circuit a 10 microfarad (mf) capacitor is placed in series with a 10-ohm resistor. The total resistance of the combination is\_\_\_\_\_.

- A. 10 ohms
- B. 1 ohm
- C. Zero
- D. 20 ohms
- E. Infinite

10. A potential difference of 6V is used to produce a current of 5A for 200s through a heating coil. The heat produced is\_\_\_\_\_.

- A. 4800 cal
- B. 6000 cal
- C. 2400 J
- D. 240 kcal
- E. 6000J

11. Solve the simultaneous linear equation

$$2x + 5y = 11$$

$$7x + 4y = 2$$

- A.  $x=-8, y=1$
- B.  $x= -2, y = 4$
- C.  $x = 2, y= -3$
- D.  $x = -\frac{34}{27}, y = \frac{73}{27}$
- E.  $x = \frac{346}{189}, y = -\frac{73}{27}$

12. solve the system of equation

$$2^{x+y}=32$$

$$3^{3y-x}=27$$

- A. (3, 2)
- B. (-3, 2)
- C. (3, -2)
- D. (-3, -2)
- E. (2, 2)

13. Solve the equation for all positive values of  $\theta$  less than  $360^\circ$ ,  $3 \tan \theta + 2 = -1$

- A.  $135^\circ$  or  $315^\circ$
- B.  $45^\circ$  or  $135^\circ$
- C.  $315^\circ$  or  $45^\circ$
- D.  $315^\circ$  or  $180^\circ$
- E.  $360^\circ$  or  $315^\circ$

14. Determine the maximum value of  $y = 3x^2 - x^3$

- A. 0
- B. 2

- C. 4
- D. 6

15. The mean of the numbers 3, 6, 4, x and 7 is 5. Find the standard deviation.

- A.  $\sqrt{2}$
- B.  $\sqrt{3}$
- C. 3
- D. 2

16. A straight line  $y=mx$  meets the curve  $y = x^2 - 12x + 40$  in two distinct points. If one of them is (5, 5) find the other

- A. (5,6)
- B. (8,8)
- C. (8,5)
- D. (7,7)
- E. (7,5)

17. If  $(x-2)$  and  $(x + 1)$  are factors of the expression  $x^3 + px^2 + qx + 1$ , what is the sum of p and q?

- A. 0
- B. -3
- C.  $-\frac{17}{3}$
- D.  $-\frac{2}{3}$

18. The ratio of the lengths of two similar rectangular blocks is 2:3. if the volume of the larger block is  $351\text{cm}^3$ , then the volume of the other block is

- A.  $234.00\text{ cm}^3$
- B.  $526.50\text{ cm}^3$
- C.  $166.00\text{ cm}^3$
- D.  $729.75\text{ cm}^3$
- E.  $104.00\text{ cm}^3$

19. At what real value of x do the curves whose equations are  $y = x^3 + x$  and  $y = x^2 + 1$  intersect

- A. -2
- B. 2
- C. -1
- D. 0
- E. 1

20. Find the area of a regular hexagon inscribed in a circle of radius 8cm.

- A.  $16\sqrt{3}\text{ cm}^2$
- B.  $96\sqrt{3}\text{ cm}^2$
- C.  $192\sqrt{3}\text{ cm}^2$
- D.  $16\text{ cm}^2$
- E.  $32\text{ cm}^2$

**CHEMISTRY**

21. What weight of sodium hydroxide is required to make 500 cm<sup>3</sup> of 0.2 M solution? [Na=23, O=16, H = 1]

- A. 40g
- B. 20g
- C. 10g
- D. 4g
- E. 2g

22. 60 cm<sup>3</sup> of hydrogen are sparked with 20cm<sup>3</sup> of oxygen at 100°C and 1 atmosphere. The total volume of the residual gas is

- A. 60cm<sup>3</sup>
- B. 10cm<sup>3</sup>
- C. 40cm<sup>3</sup>
- D. 30cm<sup>3</sup>
- E. 70cm<sup>3</sup>

23. 0.16g of methane when burnt raises the temperature of 100g of water by 40°C. what is the heat of combustion of methane if the heat capacity of water is 4.2Jkg<sup>-1</sup>C<sup>-1</sup>? [CH<sub>4</sub>=-16]

- A. 1, 160kJmol<sup>-1</sup>
- B. 1, 180 kJmol<sup>-1</sup>
- C. 1,560 kJmol<sup>-1</sup>
- D. 1 ,600 kJmol<sup>-1</sup>
- E. 1,680kJmol<sup>-1</sup>

24. Hydrated salt of formula MSO<sub>4</sub>.XH<sub>2</sub>O contains 45.3% by mass of water of crystallization. Calculate the value of X.

- A. 3
- B. 5
- C. 7
- D. 10 [M=56, S =32, O=16, H=1]

25. A given quantity of a gas occupies a volume of 228 cm<sup>3</sup> at a pressure of 750mmHg. What will be its volume at atmospheric pressure?

- A. 220 cm<sup>3</sup>
- B. 225 cm<sup>3</sup>
- C. 230 cm<sup>3</sup>
- D. 235 cm<sup>3</sup>

**ANSWERS TO 2006/2007  
UNIPOINT POST UTME  
QUESTIONS****SECTION I**

1. C 2. D 3. C 4. B 5. B 6. B 7. A 8. D 9. C  
10. B 11. A 12. C 13. B 14. C 15. A 16. A  
17. E 18. D 19. D 20. A 21. C 22. A 23. C  
24. A 25. E

**PAPER 2: GENERAL SCIENCE**

1. E 2. E 3. C 4. B 5. C 6. B 7. A 8. D 9. A  
10. E 11. D 12. A 13. A 14. D 15. A 16.  
17. B 18. A 19. E 20. B

**CHEMISTRY**

21. D 22. A 23. C 24. C 25. B

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# UNIPOINT 2007/2008 POST UTME QUESTIONS

**Time: 40 mins**

## USE OF ENGLISH:

**Read this passage carefully and answer the questions that follow**

If present trends continue, the world would face a major crisis by the end of this century; insufficient, cheap, convenient energy. For without such energy, industrial production will fall, agricultural production will drop, transport will be restricted and standard of living in developed countries will plummet. At present, almost all out energy comes from fossil fuels. The earth's reserves of fossil fuels have been formed from organic matter subjected to enormous heat and pressure for millions of years. But such reserves are finite.

Because power demand is increasing very rapidly, fossil fuels will be exhausted within a relatively short time. We can estimate the amount of recoverable fuel under the surface of the earth and we know the calculations can therefore determine the remaining life.

If present trends continue, gas and oil reserves will be exhausted by the middle of the 21<sup>st</sup> century - about 70 years from now. Similar estimates for coal and wood reserves suggest a projected supply of 250 – 300 years. Of course long before fossil fuels are exhausted: demand will greatly exceed supply.

For too many years, the world has consumed fossil fuels with little thoughts of the future. In fact, world energy consumption increased almost 600% between 1900 and 1965 and it is projected to increase by another 450% between 1965 and the year 2010. Crude oil has been pumped out of the ground for about 100 years, but over half of it has been consumed in the past 18 years.

Coal has been mined over 800 years but over half of it has been extracted in the past 37 years. In sum, most of the world's

consumption of energy from *fossil fuels* throughout history, has taken place within living memory.

- The expression, standard of living in developed countries will plummet, means\_\_\_\_.
  - The economy of rich nations will stagnate
  - Economic life will improve in rich nations
  - Purchasing power will decline sharply in rich nations
  - People in developed nations will experience boom
- The writer warns that the world could\_\_\_\_.
  - Lose all its oil reserves in a matter of years
  - Face energy crisis soon if production is not stepped up
  - Experience scarcity and low energy price soon
  - Face low energy supply and poor agricultural output
- Fossil fuels as used in the passage include
  - Wood, kerosene and natural gas
  - Oil, coal and natural gas
  - Limited, butane and charcoal
  - Wood, coal and oil
- The writer seems to suggest that developed nations should\_\_\_\_.
  - Always calculate a fossil fuel's remaining life
  - Reduce industrial and agricultural production
  - Reduce dependence on fossil fuels
  - Review industrial dependence on energy
- From the writer's description of the world energy situation, we may conclude that
  - Developing nations will soon experience poverty
  - Demand for recoverable fuel will plummet
  - Consumption has not affected production
  - Industrial production will plummet

**In each of the questions 11-25, choose the option that best complete the gap(s)**

6. Yesterday, my mother asked me \_\_\_\_\_.  
 A. If I am tired  
 B. Are you tired?  
 C. Whether was I tired?  
 D. If I was tired
7. The bank manager assured us that there was nothing to worry about \_\_\_\_\_.  
 A. As regards to the loan  
 B. With regards to the loan  
 C. In regard of the loan  
 D. With regard to the loan
8. The first prize was \_\_\_\_\_ tray.  
 A. A carved wooden attractive  
 B. A wooden attractive carved  
 C. An attractive carved wooden  
 D. A carved attractive wooden
9. The class teacher always cautions that difficult jobs should be done \_\_\_\_\_.  
 A. Step from step  
 B. Step by step  
 C. Steps after steps  
 D. Steps by steps
10. I was often angry \_\_\_\_\_ my brother since he differed \_\_\_\_\_ me often.  
 A. With/to  
 B. About/with  
 C. Against/from  
 D. With/with
11. I am writing to you for \_\_\_\_\_ reasons.  
 A. concerned  
 B. Several  
 C. Plenty  
 D. Myriad of
12. As we sat \_\_\_\_\_ the silence, my eyes \_\_\_\_\_ the room.  
 A. Under/looked  
 B. Over/surrounded  
 C. In/roamed  
 D. Along/observed
13. Is it true that the messenger \_\_\_\_\_ when the gates were closed?  
 A. Had returned  
 B. Would return  
 C. Should return  
 D. Should have returned
14. The public library has stopped \_\_\_\_\_ books to readers.  
 A. Borrowing  
 B. Lending  
 C. Renting  
 D. Loaning
15. We won't leave until it \_\_\_\_\_ raining.  
 A. Will stop  
 B. Stopped  
 C. Stops  
 D. Has stopped
16. The \_\_\_\_\_ event marked the beginning of a new life for the entire cabinet.
17. The train \_\_\_\_\_ before I arrived.  
 A. Was leaving  
 B. Has left  
 C. Had left  
 D. Would leave
18. You can't travel on your own, \_\_\_\_\_?  
 A. Isn't it  
 B. Can't you  
 C. Won't you  
 D. Shan't you?
19. The man is refurbishing the flat with a view to \_\_\_\_\_ it.  
 A. Sell  
 B. Selling  
 C. Have sold  
 D. Be selling
20. The Secretary-General was shocked at the number of \_\_\_\_\_.  
 A. Child's soldiers  
 B. Childish soldiers  
 C. Children soldiers  
 D. Child soldiers
21. In spite of the maid's good looks, her hair is always \_\_\_\_\_.  
 A. Unkept  
 B. Unkempt  
 C. Unwashed  
 D. Uncared for
22. By the end of the football match today, we \_\_\_\_\_ the best player  
 A. Could have known  
 B. Might have know

- C. Will have know  
D. Would have known

23. It is African for a younger person to show\_\_\_\_\_to elders.

- A. Understanding  
B. Indifference  
C. Deference  
D. Satisfaction

24. A nursery rhyme is used to teach pupils how to spell the word\_\_\_\_\_.

- A. Hipopotamus  
B. Hippopotamus  
C. Hippopotamis  
D. Hippoppotamas

25. You, who\_\_\_\_\_convicted should append

- A. Has been  
B. Is  
C. Was  
D. Are

### PHYSICS

26. A weight of 1000grams hangs from a lever 20cm to the right of the fulcrum. At the left is a 500-gram weight 20 cm from the fulcrum, and a 200-gram x cm from the fulcrum. What is the value of x that will make the lever balanced?

- A. 50cm  
B. 20 cm  
C. 10cm  
D. 30 cm

27. What is the relative permittivity of a capacitor if its capacitance with a medium as dielectric is 16 farads and its capacitance with vacuum as dielectric is 2 farads?

- A.  $\frac{1}{3}$   
B.  $\frac{1}{2}$   
C. 2  
D. 8  
E. 32

28. If the magnification of a virtual image formed of an object 10cm from a convex lens is 3, the focal length of the lens is

- A. 10cm  
B. 7.5cm  
C. 16cm  
D. 19cm

- E. 20cm

29. If a water pump at Kainji Dam is capable of lifting 1000kg of water through a vertical height of 10m in 10s, the power of the pump is\_\_\_\_\_.

( $g=10\text{m/s}^2$ )

- A. 1.0 kW  
B. 10.0 kW  
C. 12.5 kW  
D. 15.0 kW  
E. 20.0 kW

30. A simple pendulum with a period of 2.0 s has its length doubled. Its new period is\_\_\_\_\_.

- A. 1.00s  
B. 1.41s  
C. 0.35s  
D. 2.83s  
E. 4.00s

31. In order to find the depth of the sea. A ship sends out a sound wave and receives an echo after one second. If the velocity of sound in water is  $1500\text{ms}^{-1}$  What is the depth of the sea?

- A. 0.75 km  
B. 1.50 km  
C. 2.20 km  
D. 3.00 km  
E. 3.75 km

32. A uniform cylindrical block of wood floats in water with one-third of height, above the water levels. in a liquid of relative density 0.8. what fraction of its height will be above the liquid level?

- A.  $\frac{1}{6}$   
B.  $\frac{1}{5}$   
C.  $\frac{4}{5}$   
D.  $\frac{5}{6}$

33. The resistance of a platinum wire at the ice and steam points are 0.75 ohm and 1.05 ohm respectively. Determine the temperature at which the resistance of the wire is 0.90 ohm?

- A. 43.0 °C  
B. 50.0°C  
C. 69.9°C  
D. 87.0°C

34. The electrochemical equivalent of platinum is  $5.0 \times 10^{-7} \text{kgC}^{-1}$ . To plate out 1.0 kg of platinum, a current of 100A must be passed through an appropriate vessel for

- A. 5.6 hours
- B. 56 hours
- C.  $1.4 \times 10^4$  hours
- D.  $2.0 \times 10^4$  hours

35. How many grams of water at 17°C must be added to 42 kg of ice at 0°C to melt the ice completely?

- A. 200g
- B. 300g
- C. 320g
- D. 400g [specific heat capacity of water — 4200.11kg/k, specific latent of fusion of ice =  $3.4 \times 10^5 \text{J/kg/k}$ ]

36. The minimum point on the curve  $y=x^2-6x+5$  is at\_\_\_\_\_.

- A. (1, 5)
- B. (2, 3)
- C. (-3, 4)
- D. (3, -4)

37. Find the mean deviation of 1, 2, 3 and 4

- A. 1.0
- B. 1.5
- C. 2.0
- D. 2.5

38. Solve the given equation  $(\log X)^2 - 6\log X + 9 = 0$

- A. 27
- B. 9
- C.  $1/27$
- D. 18
- E. 81

39. If the mean of five consecutive integers is 30, find the largest of the numbers

- A. 28
- B. 30
- C. 45
- D. 50

40. If  $x+2$  and  $x-1$  are factors of the expression  $lx^3 + 2kx^2 + 24 = 0$ , find the value of l and k

- A.  $l = -6, k = -9$
- B.  $l = -2, k = 1$
- C.  $l = -2, k = -1$

D.  $l = -6, k = 1$

E.  $l = 6, k = 0$

41. Find the equation of the curve which passes through the point (2, 5) and whose gradient at any point is given by  $6x-5$

- A.  $6x^2 + 5x + 5$
- B.  $6x^2 + 5x - 5$
- C.  $3x^2 - 5x - 5$
- D.  $3x^2 - 5x + 3$

42. A flagstaff stands on the top of a vertical tower. A man standing 60m away from the tower observes that the angles of elevations of the top and bottom of the flagstaff are  $64^\circ$  and  $62^\circ$  respectively. Find the length of the flagstaff

- A.  $60(\tan 62^\circ - \tan 64^\circ)$
- B.  $60(\tan 64^\circ - \tan 62^\circ)$
- C.  $60(\cot 62^\circ - \cot 64^\circ)$
- D.  $60(\cot 64^\circ - \cot 62^\circ)$

43. Given that  $Q = \begin{pmatrix} 6 & 0 \\ 4 & 5 \end{pmatrix}$  and

$Q+P = \begin{pmatrix} 7 & -2 \\ 6 & 8 \end{pmatrix}$ . Evaluate  $[Q+2P]$

- A. 90
- B. 9
- C. 102
- D. 120

44. A function  $f(x)$  passes through the origin and its first derivative is  $3x+2$  what is  $f(x)$ ?

- A.  $y = \frac{3}{2}x^2 + 2x$
- B.  $y = \frac{3}{2}x^2 + x$
- C.  $y = 3x^2 + 2x$
- C.  $y = \frac{1}{2}x$

45. A ship sails a distance of 50 km in the direction  $S50^\circ E$ . Find the bearing of the ship from its original position.

- A.  $S90^\circ E$
- B.  $N40^\circ E$
- C.  $S95^\circ E$
- D.  $N85^\circ E$

## CHEMISTRY

46. A certain volume of a gas at 298K is heated such that its volume and pressure are now four times the original values. What is the new temperature?

- A. 18.6K
- B. 100K
- C. 298.0K
- D. 1192.0K
- E. 4768.0K

47. The mass of silver deposited when a current of 10A is passed through a solution of silver salt for 4830s?

[Ag = 106g, F=96500Cmol<sup>-1</sup>]

- A. 108.0g
- B. 54.0g
- C. 27.0g
- D. 13.6g

48.  $2CO + O_2 \rightarrow 2CO_{2(g)}$ . Given that  $\Delta H [CO]$  is -110.4kJmol and  $H[CO_2]$  is -393.0kJmol<sup>-1</sup> the energy change of the reaction above is?

- A. -565.21kJ
- B. -282.6kJ
- C. +282.6kJ
- D. +565.2kJ

49. How many moles of limestone will he required to produce 5.6g of CaO?

- A. 0.20 mol
- B. 0.10 mol
- C. 1.12 mol
- D. 0.56 mol

50. One mole of propane is mixed with five moles of oxygen. The mixture is ignited and the propane bums completely. What is the volume of the product at s.t.p?

[M.V.G = 22.4 dm<sup>3</sup>]

- A. 112.0 dm<sup>3</sup>
- B. 67.2 dm<sup>3</sup>
- C. 56.0 dm<sup>3</sup>
- D. 44.8 dm<sup>3</sup>

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## ANSWERS TO 2007/2008 UNIPOINT POST UTME QUESTIONS

### USE OF ENGLISH

1. C 2. A 3. D 4. C 5. D 6. D 7. A 8. D 9. B  
10. D 11. A 12. C 13. A 14. B 15. C 16.  
17. C 18.A 19. B 20. D 21. B 22. D 23. C  
24. B 25. A

### PHYSICS

26. A 27. D 28. B 29. B 30. D 31. A 33. B  
34. D 35. A 36. D 37. A 39. A 40. A 42. B  
43. D 44. A

### CHEMISTRY

46. E 47. B 48. A 49. B 50. B

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**UNIPOINT 2008/2009 POST UTME QUESTIONS****Time: 1hr 15 mins****SECTION 1:****MATHEMATICS**

1. Find the slope of the curve

$$y = 2x^2 + 5x - 3 \text{ at } (1,4)$$

- A. 4
- B. 0
- C. 7
- D. 9

2. Determine the maximum value of

$$y = 3x^2 - x^3$$

- A. 0
- B. 2
- C. 4
- D. 6

3. By how much will the mean of 30, 56, 31, 55, 43 and 44 be less than the median

- A. 0.35
- B. 0.50
- C. 0.33
- D. 0.17

4. The range of 4, 3, 11, 9, 6, 15, 19, 23, 27, 24, 21 and 61 is;

- A. 28
- B. 21
- C. 23
- D. 24

5. The mean of the numbers 3, 6, 4, x and 7 is 5. Find the standard deviation

- A.  $\sqrt{2}$
- B.  $\sqrt{3}$
- C. 2
- D. 3

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

- A. 4
- B. 1
- C. -1
- D. -4

7. Musa borrows ₦10.00 of 2% per month interest and repays ₦8.00 after 4 months. However, how much does he still owe?

- A. ₦10.80
- B. ₦10.67
- C. ₦2.80
- D. ₦2.67

8. Find the derivative of  $(2x+3)(1-x)$  with respect to x

- A.  $-8x - 1$
- B.  $1 - 6x$
- C. 6
- D. -3

9. Find the derivative of the function  $y = 2x^2(2x-1)$  at the point  $x = -1$ 

- A. -6
- B. 12
- C. 16
- D. 18

10. Find the mean deviation of 1, 2, 3 and 4

- A. 1.0
- B. 1.5
- C. 2.0
- D. 2.5

11. Find the value t if the standard deviation of  $2t, 3t, 5t,$  and  $6t$  is  $\sqrt{2}$ 

- A. 1
- B. 2
- C. 3
- D. 4

12. In how many ways can 6 coloured chalks be arranged if 2 are of the same colour?

- A. 60
- B. 120
- C. 240
- D. 360

13. A final examination requires that a student answer any 4 out of 6 questions. In how many ways can this be done?

- A. 15
- B. 20
- C. 30
- D. 45

14. If the mean of five consecutive integers is 30, find the largest of the numbers

- A. 28
- B. 30
- C. 45
- D. 50

15. A bag contains 5 black, 4 white and x red marbles. If the probability of picking a red marble is  $\frac{2}{5}$ . Find the value of x

- A. 8
- B. 10
- C. 4
- D. 6

16. For what values of n is  ${}^{n-1}C_3 = 4({}^nC_3)$ ?

- A. 6
- B. 5
- C. 4
- D. 3

17. Find the root of  $x^3 - 2x^2 - 5x + 6 = 0$

- A. 1, 2, -3
- B. -1, 2, 3
- C. 1, 2, 3
- D. 1, -2, 3

18. Find the value of k if the expression  $kx^3 + x^2 - 5x - 2$  leaves a remainder of 2 when divided by  $2x + 1$

- A. 10
- B. 0
- C. -10
- D. -8

19. If  $y = x^2 - x - 12$ . find the range of values of x for which  $x > 0$

- A.  $x < -3$  or  $x > -1$
- B.  $x < -3$  or  $x > 4$
- C.  $-3 < x < 4$
- D.  $-3 < x < 4$

20. How many terms of the series 3, -6, 12, -24.....are needed to make a total of  $1 - 2^8$ ?

- A. 12
- B. 10
- C. 9
- D. 8

## PHYSICS

21. The wavelength of the first overtone of a closed pipe of length 33cm is of a closed pipe

of length 33cm is

- A. 44cm
- B. 33cm
- C. 22 cm
- D. 17cm

22. Non-luminous objects can be seen because they\_\_\_\_\_.

- A. Are polished
- B. Are near
- C. Reflect light
- D. Emit light

23. The correct unit of density is

- A.  $\text{Kg m}^{-3}$
- B.  $\text{Kg m}^{-1}$
- C.  $\text{Kg m}^3$
- D.  $\text{Kg m}^{-2}$

24. The motion of smoke of particles from a chimney is typical of

- A. Oscillatory motion
- B. Rotational motion
- C. Circular motion
- D. Random motion

25. One of the properties of gamma rays is that they are

- A. negatively charged
- B. massive
- C. neutral
- D. positively charged

26. The process whereby the molecules of different substances move randomly is called\_\_\_\_\_.

- A. Surface tension
- B. Diffusion
- C. Capillary
- D. Osmosis

27. The process whereby a liquid turns spontaneously into vapour is called spontaneously into vapour is called\_\_\_\_\_.

- A. Evaporation
- B. Relegation
- C. Boiling
- D. Sublimation

28. The velocity of sound in air will be doubled if its absolute temperature is\_\_\_\_\_.

- A. Doubled
- B. Halved

- C. Constant  
D. Quadrupled

29. A thin converging lens has a power of 4.0 diopeters. Determine its focal length

- A. 0.25m  
B. 0.03m  
C. 5.00m  
D. 2.50m

30. An electric device is rated 2000W, 250V, the correct fuse rating of the device is

- A. 8A  
B. 9A  
C. 7A  
D. 6A

31. Satellite communication network makes use of\_\_\_\_\_.

- A. Infrared rays  
B. Sound wave  
C. Visible light  
D. Radio wave

32. If two inductors of inductances 3H and 6H are arranged in series, the total inductance is

- A. 18.0H  
B. 9.0H  
C. 2.0H  
D. 0.5H

33. The current in a reverse biased junction is due to

- A. Electrons  
B. Majority carriers  
C. Holes  
D. Minority carriers

34. In an A.C circuit that contains only a capacitor, the voltage lags behind the current by\_\_\_\_\_.

- A.  $90^\circ$   
B.  $180^\circ$   
C.  $60^\circ$   
D.  $30^\circ$

35. The ray which causes gas molecules to glow is known as\_\_\_\_\_.

- A. Molecular ray  
B. Gamma ray  
C. Anode ray

D. Cathode ray

36. The charge carriers in gases are\_\_\_\_\_.

- A. Ions only  
B. Electrons and holes  
C. Electrons only  
D. Electrons and ions

37. Which of the following materials is a conductor?

- A. Plastic  
B. Sodium  
C. Wax  
D. Glass

38. The instrument used for securing a large number of similar charges by induction is called\_\_\_\_\_.

- A. Capacitor  
B. Electrophorus  
C. Electroscope  
D. Proof plane

39. The pitch of a sound note depends on\_\_\_\_\_.

- A. Timbre  
B. Harmony  
C. Quality  
D. Frequency

40. In which of the following material media would sound travel fastest

- A. Water  
B. Oil  
C. Metal  
D. Gas

### **CHEMISTRY**

41. Maximum number of electrons is found in one of these

- A. 4s  
B. 4p  
C. 4d  
D. 4f

42. The shape of the s-orbital is:

- A. Spherical  
B. Elliptical  
C. Spiral  
D. Circular

43. A carcinogenic substance is\_\_\_\_.
- Asbestos dust
  - Sawdust
  - Nitrogen (II) oxide
  - Carbon (II) oxide
44. In the electrolysis of brine, the anode is
- Platinum
  - Copper
  - Zinc
  - Carbon
45. Which of the following hydrogen halides has the highest entropy value?
- HF
  - HCl
  - HBr
  - HI
46. The allotrope of carbon used in the decolorization of sugar is
- Graphite
  - Soot
  - Charcoal
  - Lampblack
47. Sulphur (IV) oxide bleaches by
- Reduction
  - Oxidation
  - Hydration
  - Absorption
48. Aluminium hydroxide is used in the dyeing industry as a\_\_\_\_.
- Salt
  - Dye
  - Mordant
  - Dispersant
49. An isomer of  $C_5H_{12}$  is\_\_\_\_.
- Butane
  - 2 methylbutane
  - 2 ethylbutane
  - 2 methylpropane
50. Vulcanization involves the removal of\_\_\_\_.
- A monomer
  - The single bond
  - The double bond
  - A polymer
51. Phenolphthalein in acidic solution is
- Red
  - Orange
  - Colourless
  - Yellow
52. When iron is exposed to moisture and it rusts, the value of  $\Delta G$  for the reaction is\_\_\_\_.
- Neutral
  - Zero
  - Positive
  - Negative
53. A substance that is used as a ripening agent for fruits is
- Ethane
  - Propane
  - Methane
  - Butane
54. The shape of the hydrocarbon compound  $CH_4$  is
- Square planar
  - Planar
  - Linear
  - Tetrahedral
55. Sugar is separated from its impurities by
- Precipitation
  - Crystallization
  - Distillation
  - Evaporation
56. The component of an atom that contributes least to the mass is the\_\_\_\_.
- Proton
  - Nucleus
  - Neutron
  - Electron
57. An element will readily form an electrovalent compound if its electron configuration is
- 2, 8, 1
  - 2, 8, 4
  - 2, 8, 8, 12
  - 2, 8, 5
58. The most suitable metal that can be used as a lightning conductor is
- Silver
  - Copper

- C. iron
- D. Aluminium

59. The most abundant element on the earth's crust is

- A. Nitrogen
- B. Hydrogen
- C. Oxygen
- D. Fluorine

60. Metalloids are also referred to as

- A. Semi metals
- B. Metals
- C. Colloids
- D. Non-metals

61. The ores that can be concentrated by flotation are

- A. Nitride ores
- B. Sulphide ores
- C. Oxide ores
- D. Chloride ores

**From the list of words choose the one that best completes each sentence from 62 to 68**

62. You are driving\_\_\_\_\_fast for my liking.

- A. Too
- B. Very
- C. Pretty
- D. Fairly

63. You have given me one orange\_\_\_\_\_many.

- A. Very
- B. So
- C. Too
- D. More

64. The upholstery work doesn't go\_\_\_\_\_the colour of the car.

- A. After
- B. By
- C. With
- D. In

65. I became depressed\_\_\_\_\_hearing the news.

- A. At
- B. With
- C. As
- D. On

66. He was punished for failing\_\_\_\_\_his duty as a prefect of the school.

- A. On
- B. About
- C. With
- D. In

67. Good discipline was instructed\_\_\_\_\_the success achieved by the college.

- A. For
- B. On
- C. In
- D. With

68. It was quite dark in the room\_\_\_\_\_we couldn't see.

- A. So
- B. Because
- C. Through
- D. Yet

## **ANSWERS TO 2008/2009 UNIPOINT POST UTME QUESTIONS**

### **MATHEMATICS**

1. D 2. D 3. D 4. A 5. A 6. B 7. C 8. 9. C  
10. A 11. A 12. D 13. A 14. A 15. D 16. D  
17. D 18. C 19. C 20. B

### **PHYSICS**

21. A 22. C 23. A 24. D 25. C 26. B 27. A  
28. D 29. A 30. B 31. D 32. C 33. D 34. A  
35. D 36. D 37. B 38. B 39. D 40. C

### **CHEMISTRY**

41. D 42. A 43. A 44. D 45. A 46. C 47. A  
48. C 49. B 50. C 51. C 52. D 53. A 54. D  
55. B 56. D 57. A 58. B 59. C 60. A 61. B  
62. A 63. C 64. C 65. D 66. D 67. A 68. A

# UNIPOINT 2009/2010 POST UTME QUESTIONS

**Time: 40 Mins**

**Section 1:**

1. I am writing to you for \_\_\_\_\_ reasons.

- A. Concerned
- B. Several
- C. Plenty
- D. Myriad of

2. They \_\_\_\_\_ by now; I can hear all the people shouting.

- A. Would have arrived
- B. Must have arrived
- C. Had arrived
- D. Should have arrived

3. Many streets in the town \_\_\_\_\_ in need of lights at night.

- A. Stand
- B. Stood
- C. Have stood
- D. Are standing

4. The boy who stole mango was given \_\_\_\_\_ by an eye witness.

- A. Out
- B. In
- C. Away
- D. Up

**In each of the questions 5 to 7, choose the option opposite in meaning to the word or phrase underlined.**

5. "A novel is an embellished falsehood", said the teacher

- A. Enriched
- B. Exaggerated
- C. Adorned
- D. Obliterated

6. Curiously, he escaped unhurt.

- A. Interestingly
- B. Unsurprisingly
- C. Annoyingly
- D. Unusually

7. His comment was so printable.

- A. Punishable
- B. Suitable
- C. Offensive
- D. Unfair

**In each of the questions 8 to 11, fill each gap with the appropriate option from the list**

8. Following the gap police are looking for \_\_\_\_\_.

- A. Two big cars black
- B. Two cars big black
- C. Two big black cars
- D. Two black big cars

9. Our president and chairman of the occasion \_\_\_\_\_ just arrived.

- A. Has
- B. Having
- C. Have
- D. Had

10. In \_\_\_\_\_, we as politicians are identified with the masses.

- A. A more deeper sense
- B. A much deeper sense
- C. A most deeper sense
- D. Much more deeper sense

11. It has been confirmed that the election \_\_\_\_\_ held in July.

- A. Will be
- B. Is being
- C. Has been
- D. Have being

**In each of questions 12 to 14, choose the most appropriate option opposite in meaning to word(s) or phrase in italics**

12. Mrs. Koffi is very *provocative* in her dressing.

- A. Modest
- B. Happy
- C. Angry
- D. Beautiful

13. Aduma was so vociferous during the meeting of the congregation that he succeeded in incurring the **wrath** of the chairman\_

- A. Anger
- B. Admiration
- C. Displeasure
- D. Sympathy

14. The girl's **idiosyncrasy** was passion for bread and butter.

- A. Stupid outburst
- B. General tendency
- C. Singular characteristic
- D. Occupational calling

**In each questions 15 & 16, select flu option that best explains the information, conveyed in the sentence.**

15. Ngozi has always considered her father to be an impassioned man.

- A. Her father is a very lively man
- B. Her father is an emotional man
- C. Her father is a disciplined man
- D. Her father is a very strict man

16. If he went to London, he would see the Queen

- A. When he goes to London, he will see the Queen
- B. He did not go to London and did not see the Queen
- C. He did not see the Queen when he went to London
- D. He would like to see the Queen when he goes to London

**In each of question 17 to 19, choose an appropriate option nearest in meaning to word(s) or phrase in italics**

17. He is well known for his **inordinate** ambition.

- A. Excessive
- B. Passionate
- C. Moderate
- D. Sound

18. Agbenu was **ecstatic** about her result.

- A. Dispassionate
- B. Sad
- C. Pessimistic

D. Mad

19. Toyin is married to an **impatient**, self-centred man.

- A. A fretful
- B. A tolerant
- C. An edgy
- D. A tolerable

**Choose the option which correctly fills the blank space in questions 20 - 25**

20. A swarm of \_\_\_\_\_ attacked the picnic makers.

- A. Termites
- B. Birds
- C. Gorillas
- D. Bees

21. The night watchman has a \_\_\_\_\_ of arrows.

- A. Bag
- B. Cache
- C. Quiver
- D. Bundle

22. The huge dragnet enclosed a \_\_\_\_\_ of fish.

- A. Shoal
- B. School
- C. Den
- D. Flock

23. Within one minute, Okocha hit the back of the net twice, and the \_\_\_\_\_ roared in applause

- A. Spectacles
- B. Audience
- C. Congregation
- D. Spectators

24. In the terrible heat of the desert, the lost explorers thought they saw water, but it was a \_\_\_\_\_.

- A. Ghost
- B. Deceit
- C. Mirage
- D. Migraine

25. A motorist who accidentally killed an old woman was arrested and charged to court with \_\_\_\_\_.

- A. Murder

- B. Manslaughter  
C. Suicide  
D. Assassination

### PHYSICS

26. An electric kettle with negligible heat capacity is rated at 2000W. If 2.0kg of water is put in it, how long will it take the temperature of water to rise from 20°C to 100°C? [specific heat capacity of water 4200JkhK<sup>-1</sup>]

- A. 420s  
B. 336s  
C. 168s  
D. 84s

27. Which of the following is the exclusive property of a transverse wave?

- A. Diffraction  
B. Refraction  
C. Compression  
D. Polarization

28. The pitch of an acoustic device can be increased by

- A. Increasing the frequency  
B. Increasing the amplitude  
C. Decreasing the loudness  
D. Decreasing the intensity

29. Which of the following pairs of colours gives the widest separation in the spectrum of white light?

- A. Red and violet  
B. Green and yellow  
C. Red and indigo  
D. Yellow and violet

30. If the maximum voltage across a 100 Ohm resistor is 20V, then the maximum power it can dissipate is \_\_\_\_\_.

- A. 5.00W  
B. 4.00W  
C. 2.00W  
D. 0.25W

31. A solid weighs 10.0N in air, 6.0N when fully immersed in water and 7.0N when fully immersed in a certain liquid X. Calculate the relative density of the liquid

- A.  $\frac{5}{3}$   
B.  $\frac{4}{3}$

- C.  $\frac{3}{4}$   
D.  $\frac{7}{10}$

32. A man stands 4m in front of a plane mirror. If the mirror is moved 1m towards the man, the distance between him and his image is

- A. 3m  
B. 5m  
C. 6m  
D. 10m

33. An astronomical telescope is said to be in normal adjustment when the:

- A. Eye is accommodated  
B. Focal length of objective lens is longer than that of the eye piece.  
C. Final image is at near point of the eye  
D. Final image is at infinity

34. The core of an efficient transformer should consist of laminated pieces of metal in order to\_\_\_\_\_.

- A. Increase the heat produced by increasing eddy current  
B. Increase the heat produced by reducing eddy current  
C. Reduce the heat produced by increasing eddy current  
D. Reduce the heat produced by reducing eddy current

35. A 3000W electric cooker is to be used on a 200V mains current. Which of the fuses below can be used safely with the cooker?

- A. 2A  
B. 5A  
C. 10A  
D. 20A

36.  $\text{Na} + \text{Proton} \rightarrow {}_p^q\text{X} + \text{alpha particles}$ . What are the values of p and q respectively in the equation above?

- A. 10 and 20  
B. 12 and 24  
C. 20 and 10  
D. 24 and 12

37. One end of a long wire is fixed while a vibrator is attached to the other end. When the vibrator is energized, the types of wave generated in the wire are

- A. Stationary and transverse
- B. Progressive and transverse
- C. Stationary and longitudinal
- D. Progressive and longitudinal

38. A boy observes a piece of stone at the bottom of a river 10m deep. If he looks from the surface of the river, what is the apparent distance of the stone from him?

- A. 4.5m
- B. 5.0m
- C. 5.5m
- D. 8.0m

39. Radio is operated by eight cells each of e.m.f 2.0V connected in series. If two of the cells are wrongly connected, the net e.m.f of the radio is

- A. 16V
- B. 12V
- C. 10V
- D. 8V

40. A stone of mass 1kg is dropped from a height of 10m above the ground and falls under gravity, its kinetic energy 5m above the ground kinetic energy 5m above the ground is the equal to\_\_\_\_\_.

- A. Its kinetic energy on the ground
- B. Twice its initial potential energy
- C. Its initial potential energy
- D. Half its initial potential energy

41. Ice cubes are added to a glass of warm water. The glass and water are cooled by cooled by\_\_\_\_\_

- A. Conduction only
- B. Convection only
- C. Conduction and convection
- D. Convection and radiation

42. Thermometric substance of an absolute thermometer is

- A. Alcohol
- B. Mercury
- C. Helium
- D. Platinum

43. The cell of internal resistance  $r$  supplies current to a 6.0 ohms resistor and its efficiency is 75%. Find the value of  $r$  Find the value of  $r$

- A. 4.5 Ohms

- B. 1.0 Ohms
- C. 8.0 Ohms
- D. 10 Ohms

44. The capacitor,  $C = 175 \text{ p.f}$  is connected to a source of alternating e.m.f of r.m.s value 250V and e.m.f of r.m.s value 250V and frequency 50Hz calculate the r.m.s value of the current

- A. 6.87A
- B. 13.74A
- C. 4.38A
- D. 0.27A
- E. 16.49A

45. An inductor,  $L = 75\text{mH}$  is connected in series to a source of alternating emf of rms value 250V and frequency 50Hz. What is the rms value of the current?

- A. 21.22A
- B. 1.69A
- C. 10.46A
- D. 5.31A
- E. 26.53A

46. A series RLC circuit consists of a 75 $\Omega$  resistor, a 5.0  $\mu\text{f}$  capacitor and a 75mH inductor. They are connected across a generator of frequency 250Hz with a rms voltage of 12V. Determine the impedance of the circuit.

- A. 127.32  $\Omega$
- B. 117.8  $\Omega$
- C. 84.51 $\Omega$
- D. 74.39 $\Omega$
- E. 75.6 $\Omega$

47. A circuit consists of a 220.0 $\Omega$  resistor and a 0.5H inductor connected across a generator that has a frequency of 120Hz and a voltage of 230V. Determine the phase angle between the current and the voltage

- A. 59.73 $^\circ$
- B. 68.38 $^\circ$
- C. 26.75 $^\circ$
- D. 30.27 $^\circ$
- E. 38.21 $^\circ$

48. A 2500 $\Omega$  resistor and 2.5  $\mu\text{f}$  capacitors are connected in series across a generator of 60Hz frequency and 121V. Determine the power dissipated in the circuit.

- A. 2.07W

- B. 2.25W  
 C. 4.88W  
 D. 4.14W  
 E. 45W

49. A converging lens can be used a magnifying glass if the

- A. Object is placed at F  
 B. Object is placed between F and the pole  
 C. Object is placed at the pole  
 D. All of the above

50. A convex lens of focal length  $f$ , forms a real image whose size is the same as that of the object. The object distance is equal

- A.  $4F$   
 B.  $2F$   
 C.  $F$   
 D.  $\frac{F}{2}$   
 E.  $\frac{F}{4}$

### MATHEMATICS

1. If 2257 is the result of subtracting 4577 from 7056 in base  $n$ , find  $n$

- A. 8  
 B. 9  
 C. 10  
 D. 11

2. Musa borrows ₦10.00 of 2% per month interest and repays ₦8.00 after 4 months. However, how much does he still owe?

- A. ₦10.80  
 B. ₦10.67  
 C. ₦2.80  
 D. ₦2.67

3. If  $x = 3\sqrt{3}$ , find  $x^2 + \frac{36}{x^2}$

- A. 9  
 B. 24  
 C. 18  
 D. 27

4. Make  $t$  the subject of the formula in

$$s = ut + \frac{1}{2}at^2$$

- A.  $\frac{1}{a}[u \pm s]$   
 B.  $\frac{1}{a}[-u \pm \sqrt{u^2 - 2as}]$   
 C.  $\frac{1}{a}[u \pm \sqrt{u^2 - 2as}]$

D.  $\frac{1}{a}[-u \pm \sqrt{u^2 - 2as}]$

5. Evaluate  $(x + 1)^2 - (x - 1)^2$

- A.  $4x^2$   
 B.  $2x - 2$   
 C.  $4x$   
 D.  $4(1+x)$

6. If the function  $f$  is defined by  $f(x + 2) = 2x^2 + 7x - 5$ . Find  $F(-1)$ .

- A. -10  
 B. -8  
 C. 4  
 D. 10

7. If the 6<sup>th</sup> term of an arithmetic progression is 11 and the first term is 1, find the common difference.

- A. 3  
 B. 5  
 C. -2  
 D. 2

8. A binary operation is defined by the set of all positive integers  $a * b$ . Which of the following properties does not hold?

- A. Closure  
 B. Sociability  
 C. Identity  
 D. Inverse

9. Find the inverse of  $p$  under the binary operation  $p * q = p + q - pq$ . Where  $p$  and  $q$  are real numbers and zero is the identity of  $a$ ,  $p$ .

- A.  $p$   
 B.  $p - 1$   
 C.  $\frac{p}{p-1}$   
 D.  $\frac{p}{p+1}$

10. The chord ST of a circle is equal to the radius of the circle. Find the length of the arc

- T.  
 A.  $\frac{\pi}{2}$   
 B.  $\frac{\pi r}{3}$   
 C.  $\frac{\pi r}{6}$   
 D.  $\frac{\pi r}{6}$

12

11. A hunter 1.6m tall, views a bird on top of tree at angle of  $45^\circ$ , if the distance between

the hunter and the tree is 10.4m. Find the height of the tree

- A. 8.8m
- B. 9.0m
- C. 10.4m
- D. 12.0m

12. An airplane flies due north from airports P to Q and then flies due east to R. Q is equidistant from P and R. Find the bearing of P from R.

- A.  $270^\circ$
- B.  $090^\circ$
- C.  $135^\circ$
- D.  $225^\circ$

13. A trapezium has two parallel sides of length 5cm and 9cm, if the area is  $121\text{cm}^2$ , find the distance between the parallel sides.

- A. 17cm
- B. 13cm
- C. 14cm
- D. 16cm

14. Find the sum to infinity of the series  $1/2, 1/6, 1/18, \dots$

- A. 1
- B.  $3/4$
- C.  $2/3$
- D.  $1/3$

15. Find the sum to infinity of the following sequence.  $1, \frac{9}{10}, (\frac{9}{10})^2, (\frac{9}{10})^3$

- A.  $1/10$
- B.  $9/10$
- C.  $10/9$
- D. 10

16. Find the sum of 7<sup>th</sup> terms of the G.P 12, 6, 3

- A. 23.76
- B. 27.36
- C. 26.73
- D. 23.81

17. Find the length of an arc of a circle having radius 66cm and subtends an angle of  $600^\circ$  at the circle centre.

- A. 56
- B. 67
- C. 58
- D. 69

18. A city B is 205km from a village C on a bearing  $035^\circ$ , how far is B east of C?

- A. 205km
- B. 146km
- C. 117.6km
- D. 91.7km

19.  $3/4$  of a class of 32 students study English and  $3/8$  study mathematics. Every student studies at least one of these subjects. What fraction of the class study mathematics but not English?

- A.  $3/4$
- B.  $5/8$
- C.  $3/8$
- D.  $8/9$

20. The score of a student in five courses are given as 70, 75, x, 80, 90. If the mean of the students' score is 78, find the value of x.

- A. 75
- B. 85
- C. 95
- D. 120

21. In a box there are 10 T-shirts, 15 long sleeves shirts and 25 gowns. If one attire is picked at random, what is the probability that the attire is either a T-shirt or a gown?

- A.  $7/11$
- B.  $11/23$
- C.  $7/100$
- D.  $7/10$

22. The first and last terms of an A.P are 10 and 90, if the sum of the term is 750, find the number of terms.

- A. 12
- B. 15
- C. 22
- D. 24

23. Express 65 to 3 significant figure

- A. 6500
- B. 650
- C. 6,500
- D. 65

## ENGLISH

***In questions 26 to 28 choose the option nearest in meaning to the underlined.***

24. It is usually hard to change the course of action when one crosses the Rubicon. The underlined expression as used in the sentence means to\_\_\_\_\_.

- A. Pass through a place called Rubicon
- B. Cross a river called Rubicon
- C. Cross a bridge called Rubicon
- D. Be irrevocably committed

25. Solo has resigned his job with the textile mills. He doesn't seem to worry about getting another job, His plans are still quite in the air. This means that his plans are

- A. Airmailed
- B. Air light
- C. Uncertain
- D. Certain
- E. Airborne

26. Old customs die hard. This implies old customs.

- A. Cause a lot of hardship and death
- B. Must be stopped
- C. Never die out
- D. Cause hardship for younger people
- E. Tend to last for a long time

**In question 29 select the word opposite in meaning to the underlined.**

27. A book on style without abundant examples set to me as ineffectual as a book on biology with\_\_\_\_\_illustrations.

- A. Useless
- B. Difficult
- C. Interesting
- D. Satisfactory
- E. Attractive

**In questions 30 to 33, choose the expression which best completes each sentence**

28. The man has atoned\_\_\_\_\_for his sins.

- A. Upon
- B. On
- C. At
- D. For
- E. Against

29. These folktales have been handed\_\_\_\_\_generation to generation.

- A. Into
- B. Over
- C. Down
- D. Up
- E. Across

30. The chairman of the state school board advised students to desist \_\_\_\_\_blackmailing and victims should call the authorities.

- A. From
- B. In
- C. On
- D. Against
- E. By

31. It took the father many days to get the untimely death of his son\_\_\_\_\_

- A. Off
- B. Over
- C. By
- D. Through
- E. Across

**In questions 34 to 37 choose the Words or Phrase which best fills the gap(s).**

32. You could see that Akpan did not give evidence\_\_\_\_\_.

- A. Honestly completely
- B. Completely honesty
- C. Honesty completely
- D. Completely honestly

33. The chairman's laughter was with no\_\_\_\_\_ to ridicule the applicant.

- A. Intention
- B. Intend
- C. Intendment
- D. Intent

34. \_\_\_\_\_to your request, we have decided to provide necessary information.

- A. As regards
- B. With regards
- C. With regard
- D. Regarding

35. Many young men of nowadays do not know how to properly\_\_\_\_\_their cloth.

- A. Press
- B. Iron
- C. Smoothen
- D. Stretch

**In question 38 to 41 choose the option nearest in meaning to the word(s) or phrases(s) in italics.**

36. The case was thrown out because the court lacked **jurisdiction**.

- A. Jurors to help the judge
- B. Authority
- C. Prosecutors
- D. Appellate powers

37. The chief will **launch** the fund-raising appeal

- A. Make a speech at
- B. Eat his afternoon meal during
- C. Travel by boat to
- D. Start off

38. As the wedding day approached, the bride began to develop **cold feet**.

- A. Fall sick
- B. Feel cold
- C. Be reluctant
- D. Become aggressive

39. The clerk refused to **answer** for the mistakes made by the manager and his assistant

- A. Reply
- B. Give an answer
- C. Accept responsibly
- D. Account for

**In each of questions 42 to 45 choose the words(s) or phrase(s) which best fill(s) the gaps**

40. Many in the town\_\_\_\_\_in new of light at night.

- A. Stand
- B. Stood
- C. Have stood
- D. Are standing

41. The boy who stole the mango was given\_\_\_\_\_by an eye witness

- A. Out
- B. In
- C. Over
- D. Across

43.1 ran\_\_\_\_\_an old friend of mine on broad street and brought him home.

- A. Into
- B. To
- C. Over
- D. Away

44.11 they had not jumped out of the car in time they\_\_\_\_\_

- A. Might have been perished
- B. Will have perished
- C. Were all going to perish
- D. Would have perished

45. Typical Zachariah Devil-may-care and reverberant as ever. No doubt he was just the same when he was cook to Greek trader in town. In fact, I suspect that to him the Reverend father is just another sort of trader. Cancelled ass, thinking himself to be superior to the father! And in what is he superior? Success with women, perhaps? Zachariah knows that they all admire him and is always striving for still more admiration. He dresses sharply and walks in haughty manner that suits his tallness. And then he feeds his pride on the swarms of girls who run after him. It's maddening to think how little you need to attract them. I remember, my mother coming home from market in town, after selling her vegetables and cocoa. How indignant she was it's so shameful. She cried, your best-looking girls go town to throw themselves at strangers ugly as sin, speaking the most outlandish tongues, men you can scarcely look at without shuddering and why? Just money! Money! Ah, what a world! And my father replied in a buried voice, it's the times! The times shouted mother, can you imagine my child Ann with creatures like those?

But perhaps the girls, who chase Zachariah aren't drawn by his tallness or his leather shoes. Perhaps they're only after childish things, a bit of bread or a pot of jam knowing that he's a cook. My father often says women are like children in their desires. And after all too can boast a little. Plenty of women turn to look at me especially when I'm dressed in all white but I'm not like Zachariah who doesn't know women are simply children.

46. Zachariah:  
A. Was the cook of a trader  
B. Worked for a priest  
C. Worked for the speaker's mother  
D. Was a rich man  
E. Was a handsome man
47. Which of the following was NOT a quality of Zachariah's character  
A. Vanity  
B. Lack of respect for others  
C. Humility  
D. Arrogance  
E. insubordinate
48. The girls were apparently attracted to Zachariah by:  
A. Wealth  
B. The life of the towns  
C. The appearance of the young man  
D. The fact that the young man spoke strange dialect  
E. Food
49. From the passage we can conclude that the young girls were\_\_\_\_  
A. Attractive  
B. Religious  
C. Modem  
D. Easily led  
E. Indifferent
50. The speaker's mother considered that  
A. Things were not as good as they used to be  
B. Women were friends  
C. The world was corrupt  
D. The love of motley was root of evil  
E. It was necessary for attitudes to change

## ANSWERS TO 2009/2010 UNIPOINT POST UTME QUESTIONS

### SECTION 1:

1. A 2. B 3. A 4. C 5. D 6. B 7. C 8. C 9. A  
10. B 11. A 12. A 13. B 14. B 15. B 16. B  
17. A 18. D 19. C 20. D 21. C 22. A 23. D  
24. C 25. B

### PHYSICS

26. B 27. D 28. A 29. A 30. B 31. C 32. C  
33. D 34. B 35. D 36. A 37. B 38. D 39. B  
40. D 41. C 42. B 43. A 44. B 45. C 46. E  
47. A 48. - 49. B 50. B

### MATHEMATICS

1. A 2. C 3. - 4. C 5. C 6. A 7. D 8. D 9. C  
10. B 11. D 12. D 13. - 14. B 15. D 16. D  
17. D 18. C 19. A 20. A 21. D 22. D 23. D

### ENGLISH

24. D 25. C 26. E 27. C 28. D 29. B 30. A  
31. B 32. D 33. D 34. A 35. B 36. B 37. D  
38. C 39. C 40. A 41. D 43. A 44. D 45. -  
46. B 47. C 48. E 49. D 50. D

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# UNIPOINT 2010/2011 POST UTME QUESTIONS

**Time: 40 mins**

1. A compound contains 40% carbon, 6.7% hydrogen and 53.3 % oxygen. If the molar mass of the compound is 180, find the molecular formula.

- A. CH<sub>2</sub>O
- B. C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>
- C. C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>
- D. C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>

(H =1, C = 12, O =16)

2. Aluminium hydroxide is used in the dyeing industry as a\_\_\_\_\_

- A. Salt
- B. Dye
- C. Mordant
- D. Dispersant

3. Air element that occurs in the free state is\_

- A. Pb
- B. K
- C. Al
- D. Ar
- E. C

4.  $C_2H_4(g) + H_2 \longrightarrow C_2H_6 \Delta H = -13kj$

The reaction represented above is\_\_\_\_\_

- A. Exothermic
- B. Spontaneous
- C. Endothermic
- D. In equilibrium

5. Calculate the mass of chloride gas which occupies a volume of 1.12dm<sup>3</sup> at s.t.p.

- A. 15.50g
- B. 7.10g
- C. 3.55g
- D. 1.80g

(Cl = 35.5, Molar volume of gas at s.t.p. =22.4dm<sup>3</sup>)

6. Calculate the number of moles of HCl present in 20cm<sup>3</sup> of a 0.75m solution of the acid

- A. 0.015 mole
- B. 0.038 mole
- C. 3.800 mole
- D. 1.500 mole

7. Chlorine consisting of 2 isotopes of mass number 35 and 37 in the ratio 3:1 has an atomic mass of 35.5. Calculate the relative abundance of the isotope of number 37.

- A. 20
- B. 25
- C. 60
- D. 75

8. How long will it take to deposit 0.08g of copper from CuCl<sub>2</sub> solution by passing a current of 0.5A

- A. 6 mins
- B. 8 mins
- C. 24 mins
- D. 48 mins

(Cu = 64, F = 96500C mol<sup>-1</sup>)

9. How much faster does a Helium atom travel than a nitrogen molecule at the same temperature?

- A. 1.68
- B. 1.70
- C. 150
- D. 2.65
- E. 2.90

10. If a solution contains 4.9g of tetraoxosulphate (VI) acid, calculate the amount of copper (II) oxide that will meet with it

- A. 0.8g
- B. 4.0g
- C. 40.0g
- D. 80.0g

(Cu = 64, O = 16, S = 32, H = 1)

11.  $MnO_2 + xHCl \longrightarrow MnCl_2 + yH_2O + zCl_2$

In the reaction above, what are the values of x,y and z respectively.

- A. 2, 1, 2
- B. 4, 1, 2
- C. 4, 2, 1
- D. 1, 2, 1

12. Tartaric acid is used industrially to \_\_\_\_\_

- A. Make baking powder
- B. Make fruit juices
- C. Remove rust
- D. Dry substances

13. The carbon atoms in ethane are \_\_\_\_\_ hybridized  
 A.  $Sp^4$   
 B.  $Sp^3$   
 C.  $Sp^5$   
 D.  $Sp$

14. The mass of silver deposited when a current of 10A is passed through a solution of silver salt for 4830 sec is \_\_\_\_\_  
 A. 108.0g  
 B. 54.0g  
 C. 270g  
 D. 13.5g  
 ( $Ag=108, F=96500 \text{ Cmol}^{-1}$ )

15- The oxidation state of oxygen in tetraoxosulphate (VI) acid is  
 A. -4  
 B. -2  
 C. +4  
 D. -8

16. The reaction that takes place in Daniel cell is \_\_\_\_\_  
 A. Direct combination  
 B. Redox  
 C. Double decomposition  
 D. Neutralization

17. The salt formed from a strong acid and a strong base is \_\_\_\_\_  
 A. Complex  
 B. Neutral  
 C. Basic  
 D. Acidic

18. The type of reaction that is peculiar to benzene is to benzene is \_\_\_\_\_  
 A. Addition  
 B. Hydrolysis  
 C. Polymerization  
 D. Substitution

19. Under normal condition of ionic addition, what will be major product of the addition of HBr to 2-methyl-2butene.  
 A. 2-Bromo-3-methylbutane  
 B. 1-Bromo-3-methylbutane  
 C. 2-methyl-1-bromobutane  
 D. 2-Bromo-2-methylbutane

20. What is the percentage by mass of oxygen in  $Al_2(SO_4)_3 \cdot 2H_2O$ ?  
 A. 14.29%  
 B. 2539%  
 C. 50.79%  
 D. 59.25%  
 ( $Al = 27, S = 32, H=1, O=16$ )

21. What volume of  $0.5 \text{ moldm}^{-3} H_2O_4$  will exactly neutralize  $20 \text{ cm}^3$  of  $0.1 \text{ moldm}^{-3} NaOH$  solution?  
 A.  $2.0 \text{ cm}^3$   
 B.  $5.0 \text{ cm}^3$   
 C.  $6.8 \text{ cm}^3$   
 D.  $8.3 \text{ cm}^3$

22. What volume of gas is evolved at s.t.p if 2g of calcium trioxocarbonate (IV) is added to a solution of hydrochloric acid?  
 A.  $112 \text{ cm}^3$   
 B.  $224 \text{ cm}^3$   
 C.  $448 \text{ cm}^3$   
 D.  $2240 \text{ cm}^3$   
 ( $Ca=40, C=12, O=16, Cl=35, H=1$ , molar volume of gas at s.t.p. =  $22.4 \text{ dm}^3$ )

23. Which experiment led to measurement of charge on an electron?  
 A. Mass spectrometric experiment  
 B. Oil-drop experiment  
 C. Scattering  $\alpha$ -particle  
 D. Discharge-tube experiment

24. Which of the following acts as both a reducing and oxidizing agent?  
 A.  $H_2$   
 B.  $SO_2$   
 C.  $H_2S$   
 D.  $CO_2$

25. Which of the following is not a unit of temperature?  
 A.  $^{\circ}C$   
 B.  $^{\circ}F$   
 C. K  
 D.  $^{\circ}K$

26. 2 spheres of masses 5kg and 10kg are 0.3m apart. Calculate the force of attraction between them  
 A.  $3.50 \times 10^{-11}N$   
 B.  $3.71 \times 10^{-8}N$   
 C.  $3.57 \times 10^{-2}N$

D.  $4.00 \times 10^{-2}\text{N}$   
 [G =  $6.67 \times 10^{-11}\text{Nm}^2\text{kg}^{-2}$ ]

27. A 200W heater is used to heat a metal object of mass 5kg initially at  $10^\circ\text{C}$ . If the temperature rise of  $30^\circ\text{C}$  is obtained after 10mm, the heat capacity of the material is:

- A.  $1.2 \times 10^4\text{J}^\circ\text{C}^{-1}$
- B.  $6.0 \times 10^4\text{J}^\circ\text{C}^{-1}$
- C.  $8.0 \times 10^4\text{J}^\circ\text{C}^{-1}$
- D.  $4.0 \times 10^4\text{J}^\circ\text{C}^{-1}$

28. A boy drags a bag of rice along a smooth horizontal floor with a force of 2N applied at an angle of  $60^\circ$  to the floor. The work done after a distance of 3m is

- A. 3J
- B. 4J
- C. 5J
- D. 6J

29. A car of mass 1500kg goes round a circular curve of radius 50m at a speed of  $40\text{ms}^{-1}$ . The magnitude of the centripetal force on the car is \_\_\_\_\_

- A.  $4.8 \times 10^4\text{N}$
- B.  $4.8 \times 10^3\text{N}$
- C.  $1.2 \times 10^4\text{N}$
- D.  $1.2 \times 10^3\text{N}$

30. A converging lens of 15cm focal length forms an image of an object placed 9cm from it. What is its position and magnification?

- A. 6cm and  $\frac{3}{2}$
- B. 6cm and  $\frac{1}{3}$
- C. 6cm and  $\frac{-2}{3}$
- D. 6cm and  $\frac{2}{3}$

31. A gramophone record takes 5s to reach its constant angular velocity of  $4\pi\text{rads}^{-1}$  from rest. Find its constant angular acceleration.

- A.  $0.4\pi\text{rads}^{-2}$
- B.  $0.87\pi\text{rads}^{-2}$
- C.  $1.3\pi\text{rads}^{-2}$
- D.  $2.0\pi\text{rads}^{-2}$

32. A machine has a velocity ratio of 4. If it requires 800N to overcome a load of 1600N, what is the efficiency of the machine?

- A. 60%
- B. 50%
- C. 40%

D. 2%

33. A piece of iron weighs 250N in a liquid of density  $100\text{kgm}^{-3}$ . The volume of the iron is \_\_\_\_\_

- A.  $5.0 \times 10^{-3}\text{m}^3$
- B.  $4.5 \times 10^{-3}\text{m}^3$
- C.  $2.5 \times 10^{-3}\text{m}^3$
- D.  $2.0 \times 10^{-3}\text{m}^3$

34. A ray of light is incident on an equilateral triangular glass prism of refractive index  $\frac{3}{2}$ . Calculate the angle through which ray is minimally deviated in the prism.

- A.  $37.1^\circ$
- B.  $48.6^\circ$
- C.  $30.0^\circ$
- D.  $42.0^\circ$

35. A reservoir 500m deep is filled with a fluid of density  $850\text{kgm}^{-3}$ . If the atmospheric pressure is  $1.05 \times 10^5\text{Nm}^{-2}$ , the pressure at the bottom of the reservoir is \_\_\_\_\_

- [g =  $10\text{ms}^{-2}$ ]
- A.  $4.72 \times 10^6\text{Nm}^{-2}$
  - B.  $4.36 \times 10^6\text{Nm}^{-2}$
  - C.  $4.28 \times 10^6\text{Nm}^{-2}$
  - D.  $4.25 \times 10^6\text{Nm}^{-2}$

36. A string of length 4m is extended by 0.02m when a load of 0.4kg is suspended at its end. What will be the length of the string when the applied force is 15N? [g  $10\text{ms}^{-2}$ ]

- A. 4.05m
- B. 4.08m
- C. 5.05m
- D. 6.08m

37. A tuning fork of frequency 340Hz is vibrated just above cylindrical tube of height 1.2m, if water is slowly poured into the tube at what maximum height will resonance occur?

- A. 0.45m
- B. 0.95m
- C. 0.60m
- D. 0.50m

[speed of sound in air =  $340\text{ms}^{-1}$ ]

38. A wire of  $50\Omega$  resistance is drawn out so that its new length is twice the original length. If the resistivity of the wire remains

the same and the cross-sectional area is halved, the new resistance is\_\_\_\_\_

- A.  $200\Omega$
- B.  $50\Omega$
- C.  $40\Omega$
- D.  $100\Omega$

39. An electron of charge  $1.6 \times 10^{-19}$  is accelerated between 2 metal plates. If the kinetic energy of the electron is  $4.8 \times 10^{-17}\text{J}$ , the potential difference between the plates is\_\_\_

- A. 300V
- B. 30V
- C. 400V
- D. 40V

40. An object is placed 20cm in front of a concave mirror whose focal length is 10cm. where and how is the image formed?

- A. Center of curvature and inverted
- B. 20cm behind the mirror and inverted
- C. 20cm in front of the mirror and upright
- D. 20cm in front of the mirror and virtual

41. Caesium has a work function of  $3 \times 10^{-19}\text{J}$ , the maximum energy of liberated electrons when it is illuminated by light of frequency  $6.7 \times 10^{14}\text{Hz}$  is:

- A.  $147 \times 10^{-19}\text{J}$
- B.  $3.00 \times 10^{-19}\text{J}$
- C.  $4.42 \times 10^{-19}\text{J}$
- D.  $6.6 \times 10^{-19}\text{J}$

[ $h=6.67 \times 10^{-34}\text{J}\cdot\text{s}$ ]

42. Given that Young's modulus for aluminium is  $7.0 \times 10^{10}\text{Nm}^{-2}$  and density is  $2.7 \times 10^3 \text{kgm}^{-3}$ , find the speed of sound produced if a solid bar is struck at one end of the hammer.

- A.  $3.6 \times 10^3\text{ms}^{-1}$
- B.  $5.1 \times 10^3\text{ms}^{-1}$
- C.  $2.8 \times 10^3\text{ms}^{-1}$
- D.  $4.2 \times 10^3\text{ms}^{-1}$

43. If  $1.2 \times 10^6\text{J}$  of heat energy is given off in 1sec from a vessel maintained at a temperature gradient of  $30\text{km}^{-1}$ , the surface area of the vessel is\_\_\_\_\_

- A.  $1.0 \times 10^3\text{m}^2$
- B.  $1.0 \times 10^2\text{m}^2$
- C.  $9.0 \times 10^4\text{m}^2$

D.  $9.0 \times 10^2\text{m}^2$

[Thermal capacity of the vessel =  $400\text{Wm}^{-1}\text{K}^{-1}$ ]

44. Light ray is incident on air-glass interface at angle of  $70^\circ$  to the interphase. Given that the refractive index of glass (n) is 1.45, what refractive angle will the ray make with the normal?

- A.  $40.41^\circ$
- B.  $20.71^\circ$
- C.  $20.17^\circ$
- D.  $18.97^\circ$
- E.  $25.00^\circ$

45. On a rainy day of  $20^\circ\text{C}$ , the length of a steel track is 20m. what will be its length on a hot day with temperature of  $40^\circ\text{C}$ ?

- A. 20.009m
- B. 20.002m
- C. 20.013m
- D. 20.004m

[Coefficient of linear expansion of steel =  $1.1 \times 10^{-6}\text{K}^{-1}$ ]

46. One of the following phenomena must occur whenever white light is dispersed

- A. Interferes
- B. Polarization
- C. Reflection
- D. Refraction
- E. Diffraction

47. The count rate of a radioactive material is 800 count/min. If the half-life of the material is 4 days what would the count rate be 16 days later?

- A. 50 count/min
- B. 25 count/min
- C. 200 count/min
- D. 100 count/min

48. The force on a charge moving with a velocity v in a magnetic field B is half of the maximum force when the angle between wave B is:

- A.  $0^\circ$
- B.  $90^\circ$
- C.  $45^\circ$
- D.  $30^\circ$

49. The vertical displacement experienced by a vibrating body during wave motion is called\_\_\_\_\_

- A. Period
- B. A cycle
- C. Amplitude
- D. Displacement
- E. Distance

50. Water in an open vessel boils at a lower temperature when heated at the mountain top because

- A. Pressure is increased
- B. Pressure is reduced
- C. The rays of sun assists
- D. The saturated vapour pressure is eliminated
- E. None of the above

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## **Answers to UNIPORT 2010/2011 Post UTME Questions**

1. C 2. C 3. D 4. A 5. C 6. – 7. B 8. B 9. D  
10. B 11. C 12. B 13. B 14. A 15. B 16. B  
17. B 18. D 19. D 20. C 21. A 22. C 23. B  
24. A 25. D 26. B 27. A 28. A 29. A 30. D  
31. B 32. B 33. C 34. A 35. B 36. B 37. A  
38. A 39. A 40. B 41. A 42. B 43. A 44. B  
45. D 46. D 47. A 48. D 49. D 50. B

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# UNIPOINT 2011/2012 POST UTME QUESTIONS

**Time: 40 mins**

- Which of the following is/are water pollutants?
  - Fertilizers
  - Human wastes
  - Industrial wastes
  - All of the above
- Which of the following statement is true of  $\Delta H$ , the enthalpy of reaction? It is;
  - The heat of change accompanying a chemical change
  - Negative for exothermic reactions
  - Positive for endothermic reactions
  - All of the above
- A saturated solution of potassium chloride was prepared at  $X^\circ\text{C}$ . If  $30\text{m}^3$  of this solution required  $22.5\text{cm}^3$  of silver trioxonitrate (V) solution, containing 34g in  $100\text{cm}^3$  solution for complete precipitation. Calculate the solubility of potassium chloride at  $X^\circ\text{C}$  in  $\text{mol dm}^{-3}$  (take  $\text{KCl}=74.5$ ,  $\text{AgNO}_3=170$ )
  - $1.5 \text{ mol dm}^{-3}$
  - $2.0 \text{ mol dm}^{-3}$
  - $0.15 \text{ mol dm}^{-3}$
  - $0.20 \text{ mol dm}^{-3}$
- The general methods of preparing salts include
  - Neutralization
  - Precipitation
  - Double decomposition
  - Action of an acid on a metal
  - I and II
  - III and II
  - II and III
  - I, II, III and IV
- When a metal plate is placed in a solution containing its ions, some of the metallic ions in the solution will take up electrons from the metal plate and deposit themselves as neutral atoms on the plate, which favours the reaction?
  - The electrode or metal plate becomes positively charged with respect to the solution/electrolyte
  - The electrode or metal plate becomes neutral with respect to the solution/electrolyte
  - The electrode or metal plate has more electrons with respect to the solution/electrolyte
  - The electrode or metal plate becomes negatively charged with respect to the solution/electrolyte
- How many isomers can be obtained from  $\text{C}_4\text{H}_{10}$ ?
  - 0
  - 1
  - 2
  - 3
- Who discovered the atom?
  - Rutherford
  - Dalton
  - Neils Bohr
  - Goldstein
- The technique used for the separation of immiscible liquids is \_\_\_\_
  - Distillation
  - Chromatography
  - The use of separating funnel
  - Fractional distillation
- Which of the following denotes an alpha particle?
  - ${}^1_0n$
  - ${}^4_2\text{He}$
  - ${}^0_{-1}e$
  - ${}^9_4\text{Be}$
- The shapes of  $\text{CO}_2$ ,  $\text{H}_2\text{O}$  and  $\text{CH}_4$  respectively are:
  - Bent, linear and tetrahedral
  - Bent, tetrahedral and linear
  - Linear, bent and tetrahedral
  - Tetrahedral, linear and bent
- Wives maximize their singleness and do not fret over whom they would be found by, how and when they would be found. They trust God always and strive to please Him, knowing assuredly that good and perfect gifts come from Him. Wives cherish their

period of preparation and are not in a hurry to get over with it, which makes them not to compromise in their standards, principles and virtues according to God's word. In fact, they are not in a hurry to jump out of their preparatory period for any man because they would only become incomplete and unfulfilled if they stopped half-way through their preparatory class. A woman may try to "impress" in order to seek the approval of some men, wives are just impressive in all things. Not to get it wrong, wives may not be all that some men would want them to be, but most times they turn out to be what God wants them to be so that he also can become what God wants him to be.

A woman may prefer you if your parents were dead, but a wife is groomed to handle the complicated patterns of relating with her in-laws. Wives are not rigid, rather they are malleable, trustworthy, loving and loveable, forgiving and forgivable, submissive and respected. They are almost always prepared for your ministry and are willing to stand by you at both good and had times. Remember friends, except the woman is prepared she cannot be a wife. The period of singleness is not just a period of waiting but more of the period of preparation and training for her man. If she's not prepared as a wife, it may be difficult to make her one. Arise sisters, prepare yourself; be wives and not just women for it is only when a man finds a wife (and not a mere woman) that he finds a good thing and obtains favour from the Lord. **MARRIAGE IS ABOUT WIVES NOT WOMEN.**

*(Adapted from Peculiar Truth, 2002)*

"...but most times they turn out to be what God wants of them to be so that he also can become what God wants him to be." means that:

- A. Women are good advisers
- B. God makes wives for their husbands
- C. Husbands are made gods by their wives
- D. Wives help husbands fit into God's plan

13. From the passage, when does a man find a good thing and obtains favour from the lord?

- A. When he finds a girl
- B. When he loves his mother
- C. When he loves a woman
- D. When he finds a wife

14. Chike must have passed the house Five times yet, he was still not sure. Was this the house he had visited so often in the past? The house he used to visit was a bungalow; this one too, was a bungalow. The old house was situated between two-storied buildings; this one too, was so situated, but in spite of this feeling of certainty, Chike had a vague suspicion that the house he had passed so often that day might be the wrong house after all. Could an absence of two years have blurred his memory so badly? After a few moments' hesitation, Chike began to move towards the house and then stopped, as if held back by an invisible hand, His attention had been attracted by a girl of about twenty-four, who was tripping along the pavement to his right. He turned and advanced towards her, and was about to call her by what he felt was her name when he discovered that he had made a mistake in respect to her identity. Just as Chike turned from the girl to continue his quest, he heard voices shouting, 'thief thief!' and saw a crowd materialize in seconds. At the head of this justice-impelled rabble, was a ludicrously fat woman who, in spite of her size, pounced along with the agility of her outburst. And as she did so, the surplus flesh on her podgy arms quivered. 'They are all the same,' this woman screamed, addressing nobody in particular. They dress gorgeously, but underneath they are rogues,' Again, she clapped her hands and again, there was a quivering of loose flesh. Chike was so busily occupied with watching the antics of this woman that he did not notice at first that the object of the venom is the girl that he had seen earlier. It was this girl that was now surrounded by the crowd, with many people groaning, sighing and hissing in unison. Chike relaxed and prepared to watch the drama unfolding before him.

**(Jamb 1997)**

The expression "justice-impelled" in the passage refers to the desire of the crowd to:

- A. See that the case was taken before a

judge

- B. Take the thief to the police station
- C. Try the thief it
- D. See that there was fair play

15. Standard English refers to the authoritative and correct usage of the language, the medium of expression for government and education. Its opposite is a dialectal variant of the language that is, accepted and recognized word, expression and structures peculiar to a smaller group of language users who are generally set apart from standard usage by cultural group or geographical region. For example, Nigerian, American, Irish and British English differ from one another in many respects and each is identifiable, yet in every case the standard variety approaches a single and hypothetical classification known as International English. As one moves towards informality and away from the observance of strict rules, emphasis falls on the difference between dialects. In addition to American English being distinguishable from British English, it is also true that British English is not uniform within the United Kingdom. The level of formality is determined by education and aspiration while dialects vary from region to region.

One characteristics of a dialect as mentioned in the passage is\_\_\_\_\_

- A. Informality
- B. Possession of various forms
- C. Distinction from British English
- D. Restricted area of usage

16. Identify the sentence with the wrong punctuation mark.

- A. He doesn't know the answer, does he?
- B. She has lots of cats at home.
- C. foes sister is in the Himalayas.
- D. The problem with the business is its location.

17. One fact we have to comprehend is that in our unconscious mind, we cannot distinguish between a wish and a deed. We are all aware of some of our illogical dreams in which two completely opposite statements can exist side by side very acceptable in our dreams but unthinkable and illogical in our walking state. Just as our unconscious mind

cannot differentiate between the wish to kill somebody in anger and the act of having done so, the young child is unable to make this distinction. The child who angrily wishes his mother to drop dead for not having gratified his need will be traumatized greatly by the actual death of his mother, even if this is not linked closely in firm with his destructive wishes. He will always take part of or the whole of the blame for the loss of his mother. He will say to himself, rarely to others did it, I am responsible, I was bad therefore mummy left me, It is well to remember that the child will react in the same manner if he loses a parent by divorce, separation or desertion. Death is often seen by the child as an impeachment and therefore has little distinction from a divorce in which he may have an opportunity to see a parent again.

The passage emphasizes:

- A. A child growing up in ignorance
- B. Our unconscious mind
- C. A child's inability to distinguish between dream and reality
- D. Illogical dreams

8. \_\_\_\_\_is the owner of this pair of scissors?

- A. Who
- B. Whom
- C. Which
- D. Whose

19. This\_\_\_\_\_be Asawo's handwriting. I know his handwriting well enough.

- A. May
- B. Will
- C. Ought
- D. Can't

20. Amina used to BE HAND-IN-GLOVE WITH HER BOYFRIEND.

- A. Cheat on her boyfriend
- B. Admire her boyfriend
- C. Fight her boyfriend
- D. Wear her boyfriend's glove
- E. Be in a very close relationship with her boyfriend

21. This masquerade appears ONCE IN A BLUE MOON. This means that the

masquerade appears

- A. On very rare occasions
- B. When the moon is blue
- C. Whenever a special request is made
- D. Once a month

22. In the sentence "John considered himself SUCCESSFUL", the capitalized word is correctly classified as \_\_\_\_\_

- A. indirect object
- B. Predicate nominative
- C. Direct object
- D. Predicate adjective

23. In the sentence "My rather, who is standing over them by the wall is a VERY good dancer", the capitalized word is an example of \_\_\_\_\_

- A. An adverb
- B. A coordinating conjunction
- C. An adjective
- D. An indefinite pronoun

24. The sentence "The student didn't know the rules until they were explained to him", contains \_\_\_\_\_

- A. Coordinating conjunction
- B. Subordinating conjunction
- C. Conjunction adverb
- D. Modal verb

25. The lengths of the parallel sides of a trapezium are 9cm and 12cm. if the area of the trapezium is  $105\text{cm}^2$ , find the perpendicular distance between the parallel lines.

- A. 5cm
- B. 7cm
- C. 10cm
- D. 15cm

26. Seven students are to have a jolly good time together. If they are to be seated, find the number of ways they are to be chosen.

- A. 5040
- B. 6040
- C. 4050
- D. 4060

27. A rope of 18m is used to form a sector of a circle of radius 3.5m, on a school playing

field. What is the size of the angle of the sector, correct to the nearest degree.

- A. 33
- B. 40
- C. 90
- D. 180

28. A man obtained ₦48,000.00 in exchange for \$600.00. What is the of one Dollar to the Naira in the exchange?

- A. ₦0.8
- B. ₦1.25
- C. ₦80.00
- D. ₦125.00

29. Find the length of an arc of a circle having radius 66cm and subtends an angle of  $60^\circ$  at the circle center.

- A. 5.6
- B. 6.7
- C. 5.8
- D. 6.9

30. X varies directly as the square of Y and inversely as P, when  $y = 5$ ,  $x = 8$  and  $P = 10$ . Find the value of when  $y = 3$  and  $P = 1/3$

- A. 28.8
- B. 86.4
- C. 82.4
- D. 68.4

31. A university lecturer earns ₦60,000 per month. He pays tax of 10kobo on every naira he earns. Calculate his net income.

- A. ₦54,000
- B. ₦67,000
- C. ₦22,000
- D. ₦72,000

32. The score of a student in five courses are given as 70, 75, x, 80, 90. If the mean of the students' score is 78, find the value of x.

- A. 75
- B. 85
- C. 95
- D. 120

33. In an election there were four candidates,  $\frac{5}{6}$  of the electors voted for the winner. The runner-up received  $\frac{4}{7}$  of the remaining votes. The third candidate received twice the votes of the fourth candidate. If the winner received 3,021

votes more than the runner-up, how many electors voted?

- A. 126,882
- B. 63,441
- C. 18,126
- D. 35,245

34. During two years in a school,  $\frac{7}{8}$  of the students had malaria, had catarrh and  $\frac{5}{6}$  had neither. that fraction of the school had both malaria and catarrh?

- A.  $1\frac{1}{2}$
- B.  $1\frac{11}{24}$
- C.  $\frac{11}{24}$
- D.  $\frac{1}{2}$

35.  $\frac{3}{4}$  of a class of 32 students study English and  $\frac{3}{8}$  study mathematics. Every student studies at least one of these subjects. What fraction of the class study mathematics but not English?

- A.  $\frac{1}{4}$
- B.  $\frac{5}{8}$
- C.  $\frac{3}{8}$
- D.  $\frac{8}{9}$

36. Water flows through a 3cm diameter pipe at the rate of 3 meters/second. How many  $\text{cm}^3$  of water flow through the pipe in one second?

- A.  $450 \text{ cm}^3/\text{S}$
- B.  $900 \text{ cm}^3/\text{S}$
- C.  $225 \text{ cm}^3/\text{S}$
- D.  $2121 \text{ cm}^3/\text{S}$

37. The product of two numbers is 12. The sum of the larger number and twice the smaller is 11. Find the two numbers.

- A. 4, 3
- B.  $8, 2\frac{1}{2}$
- C.  $3, 1\frac{1}{2}$
- D.  $1\frac{1}{2}, -1$

38. Divide  $1324_8$  by  $20201_3$  and leave your answer in a binary numeral.

- A.  $101_2$
- B.  $011_2$
- C.  $010_2$
- D.  $100_2$

39. A city B is 205km from a village C on a bearing  $035^\circ$ , how far is B cast of C?

- A. 205km
- B. 146km
- C. 117.6km
- D. 91.7km

40. In a box there are 10 T-shirts, 15 long sleeves shirts and 2.5 gowns. If one attire is picked at random, what is the probability that the attire is either a T-shirt or a gown?

- A.  $\frac{7}{11}$
- B.  $\frac{11}{23}$
- C.  $\frac{7}{100}$
- D.  $\frac{7}{10}$

41. Calculate the force acting on an electron of charge  $1.6 \times 10^{-19}\text{C}$  placed in an electric field intensity  $10^8\text{Vm}^{-1}$ .

- A.  $1.6 \times 10^{-11}\text{N}$
- B.  $1.6 \times 10^{-14}\text{N}$
- C.  $1.6 \times 10^{-16}\text{N}$
- D.  $1.0 \times 10^{-16}\text{N}$

42. A body of mass 400g is whirled in a vertical of radius 2m at a steady rate of 2rev/s. find its centripetal force.

- A. 160N
- B. 102N
- C. 320N
- D. 252N

43. Find the SUM of 7<sup>th</sup> terms of the G.P 12, 6, 3.....

- A. 23.76
- B. 27.36
- C. 26.73
- D. 23.81

44. If the volume of a fixed mass of gas is kept constant, the pressure of the gas\_\_\_\_\_

- A. Is inversely proportional to its centigrade temperature
- B. Is inversely proportional to its absolute temperature
- C. Is directly proportional to its centigrade temperature
- D. Is directly proportional to its absolute temperature

45. Find the reactance of a capacitor  $\frac{500}{\pi}$  Hz frequency if in a circuit a capacitor has a reactance = 5F,  
A. 2000  
B. 200.50  
C. 80.70  
D. 190.10

46. A 500kg car which was initially at rest travelled with an acceleration of 5m/sec<sup>2</sup>, its kinetic energy after 4 secs was\_\_\_\_  
A. 10<sup>5</sup>J  
B. 10<sup>4</sup>J  
C. 10<sup>3</sup>J  
D. 10<sup>2</sup>J

47. Evaporation is affected by EXCEPT\_\_\_\_  
A. Wind and air dryness  
B. The liquid's nature  
C. Temperature  
D. The freeness of the liquid

48. To reduce heat loss in transformer, \_\_\_\_  
A. The number of turns shot he increased  
B. The soft iron core should be laminated  
C. The area of the coils in t soft iron core should increased  
D. All of the above

49. Calculate the power in operation when a force of 10N moves distance of 5m at a rate of 2secs.  
A. 25W  
B. 50W  
C. 5W  
D. 100W

50. The process of magnetizing an object of magnetic material simply by bringing a magnet near is called \_\_\_\_  
A. Electromagnetic induction  
B. Ionic magnetization  
C. Electrolyte magnetization  
D. Induced

## ANSWERS TO UNIPOINT 2011/2012 POST UTME QUESTIONS

1. D 2. D 3. B 4. D 5. A 6. B 7. B 9. C 10. B  
11. C 12. D 13. D 14. D 15. D 16. B 17. C  
18. A 19. D 20. A 21. A 22. C 23. A 24. B  
25. C 26. A 27. D 28. C 29. D 30. B 31. A  
32. A 33. – 34. B 35. A 36. D 37. A 38. B  
39. C 40. D 41. A 42. D 43. D 44. D 45. A  
46. A 47. D 48. B 49. A 50. D

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# UNIPOINT 2012/2013 POST UTME QUESTIONS

**Time: 40 mins**

1. From the options lettered A-D, choose the option that best completes the sentence below

He goes to the farm, \_\_\_\_\_

- A. Can he?
- B. Can't he?
- C. Does he?
- D. Doesn't he?

2. The score of a student in five courses are given as 70, 75, x, 80, 90. If the mean of the students' score is 78, find the value of x.

- A. 75
- B. 85
- C. 95
- D. 120

3. The marks obtained by students in mathematics test are given below 1, 3, 2, 23, 4, 1, 5, 10, 11, 9, 8, 12, 14. If A is the mean and B is the median, then calculate A + B.

- A. 11.67
- B. 12.85
- C. 10.57
- D. 15.56

4. Choose from the option lettered A-D, the word that most appropriately completes the sentence below.

Good people are always ready to help those who are not as fortunate as \_\_\_\_\_

- A. Theirs
- B. Them
- C. They
- D. Us

5. In a box there are 10 T-shirts, 15 long sleeves shirts and 25 gowns. If one attire is picked at random, what is the probability that the attire is either a T-shirt or a gown?

- A.  $\frac{7}{11}$
- B.  $\frac{11}{23}$
- C.  $\frac{7}{100}$
- D.  $\frac{7}{10}$

6. Diki drives to work in 40 minutes. She takes the same route to return home. If her average speed on her way home is half as her average speed on the trip to work, how much time does she spend driving on the round trip?

- A. 1 hour
- B. 1 hour, 20 minutes
- C. 1 hour, 40 minutes
- D. 2 hours

7. Fill in the blank space(s) with the correct word or group of words, correct word or group of words, from the options lettered A-D.

This is not your book, it is \_\_\_\_\_

- A. Johns
- B. John's
- C. John's own
- D. For John's

8. From the option lettered A-E, choose the one that is NEAREST IN MEANING to the word written in capital letters.

Our school prefect is too OFFICIOUS and we all hate him because of his behaviour.

- A. Efficient
- B. Efficacious
- C. Overzealous
- D. Active
- E. Showy

9. A heating instrument has 12 resistors and they are placed vertically and have a uniform reducing power. The powers of the first, second, third and fourth resistors are 3000, 2600, 2200, and 1800 respectively. Find the power of the resistor

- A. 9500
- B. 9600
- C. 9700
- D. -9600

10. Find the probability of obtaining a multiple of 3 from a number chosen randomly by a student from the integers between 1 and 20 inclusive

- A.  $\frac{2}{7}$

- B.  $\frac{3}{7}$
- C.  $\frac{3}{10}$
- D.  $\frac{2}{9}$

12. The statement, "My father gave me this watch", re-written in the passive form becomes:

- I \_\_\_\_\_ this watch by my father.
- A. Had been given
  - B. Am given
  - C. Were given
  - D. Was given

13. Fill in the blank space(s) with the correct word or group of words from the options lettered A-D.

When two or more independent clauses are joined together by using a co-ordinating conjunction, the type of sentence is referred to as \_\_\_\_\_

- A. Simple sentence
- B. Compound sentence
- C. Compound-complex sentence
- D. Simple-compound sentence

14. In the sentence "He listed HIMSELF in the directory", the capitalized word is an example of \_\_\_\_\_

- A. Relative pronoun
- B. Personal pronoun
- C. Reciprocal pronoun
- D. Reflexive pronoun

15. The first and last terms of an A.P are and 90, if the sum of the term is 1, find the number of terms.

- A. 12
- B. 15
- C. 22
- D. 24

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

The robbers were subjected \_\_\_\_\_ a thorough beating by the irate mob.

- A. To
- B. By
- C. With
- D. For

17. A total of m matches are needed to 40 match boxes with the same number of matches in each box. How many matches are in each box?

- A.  $\frac{40}{m}$
- B. 40m
- C.  $\frac{m}{40}$
- D.  $\frac{m}{40} - m$

18. Fill in the blank space(s) with the correct question tag.

He has stopped drinking, \_\_\_\_\_

- A. does he?
- B. Has he?
- C. Hadn't he?
- D. Hasn't he?

19. From the options lettered A-D, choose the one that BEST INTERPRETS the expression written in capital letters.

The senior prefect had to CARRY THE CAN because he refused to identify the culprit.

- A. Dispose the can of refuse
- B. Accept responsibility
- C. Be made one of the scapegoats
- D. Bear the brunt

20. A carton of hard drinks containing 20 bottles of Guider, 15 bottles of Star and 5 bottles of Harp. What is the probability of not choosing any of the bottles from the information given?

- A.  $\frac{122}{128}$
- B.  $\frac{125}{128}$
- C.  $\frac{128}{145}$
- D.  $\frac{145}{154}$

21. Adjectives have three degrees of comparisons namely;

- A. Positive, comparative, superlative
- B. Positive, regular, irregular
- C. Regular, irregular and superlative
- D. None of the above

22. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D. in the sentence "HE wasn't interested in my excuses", the capitalized word is an example of \_\_\_\_\_

- A. Relative pronoun
- B. Personal pronoun
- C. Reciprocal pronoun

D. Reflexive pronoun

23. The probability of three events A, B, C happening are  $\frac{1}{2}$ ,  $\frac{2}{3}$ ,  $\frac{1}{4}$ . Find the probability that event A and C only occur.

- A.  $\frac{2}{11}$
- B.  $\frac{3}{11}$
- C.  $\frac{1}{12}$
- D.  $\frac{1}{8}$

24. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D.

Every community from time immemorial must have had \_\_\_\_\_ known and respected for their ability to guide and \_\_\_\_\_ younger members of their community towards the \_\_\_\_\_ of the desired goals of their group.

- A. Teachers/direct/attainment
- B. Priests/follow/enforcement
- C. Fathers/flog/creating
- D. Coaches/frustrate/achievement

25. A girl is 6 years younger than her brother. The product of their ages is 135. Find their ages.

- A. 15 years, 6 years
- B. 9 years, 3 years
- C. 12 years, 5 years
- D. 15 years, 9 years

26. If  $a:b = 6:5$ , Find the value of  $(4a + \frac{6b}{3a} - b) \div (\frac{4a}{5b})$

- A. -73
- B. 73
- C. -7.03
- D. 7.03

27. Fill in the blank space(s) with the correct word or group of words, from the option lettered A-D.

The word written in capital letters in the sentence "You have to put it **IN** their food", is an example of \_\_\_\_\_

- A. A coordinating conjunction
- B. A subordinating conjunction
- C. An indefinite pronoun
- D. A preposition

28. Fill in the blank space(s) with the correct word or group of words, from the option lettered A-D.

The sentence "Ireland is **MUCH BETTER**". The capitalized phrase is correctly classified as \_\_\_\_\_

- A. A comparative adverb
- B. Positive adverb
- C. Superlative adverb
- D. Accumulative adverb

29. From the options lettered A-D, choose the one that is **NEAREST IN MEANING** to the word(s) written in capital letters.

His **ANTIPATHY** to religious ideas makes him unpopular.

- A. Remedy
- B. Consciousness
- C. Hostility
- D. Perceptiveness

30. A student travelled for x hours at 5km/hr and for y hours at 10km/hr. The journey was 35km altogether, find x and y if the average speed of the journey was 7km/hr.

- A. 3hrs, 3hrs
- B. 3hrs, 2hrs
- C. 1 hr, 4hrs
- D. 2hrs, 3hrs

31. In a poll, it was noticed that 22 people read biology text books and 37 people read physics text books. If 45 people read either or biology text books, find the probability of the people who read both to books i.e. physics and biology.

- A.  $\frac{14}{45}$
- B.  $\frac{15}{45}$
- C.  $\frac{16}{45}$
- D.  $\frac{17}{45}$

32. From the option A-D, choose the one that is **OPPOSITE IN MEANING** to the word(s) with the words written in capital letters.

She is a **PROUD** Girl

- A. Arrogant
- B. Stubborn
- C. Humble
- D. Rude

33. Fill in the blank space(s) with the correct word or group of words, from the option lettered A-D.

The Policeman had gathered \_\_\_\_\_ to complete the investigation

- A. Few information
- B. Many information
- C. Sufficient information
- D. An information

34. From the options lettered A-E, choose the one that BEST INTERPRETS the word(s) written in capital letters.

The discussion became ANIMATED.

- A. Specialized
- B. Lively
- C. Intellectual
- D. Unruly

35. If the length of a square is increased by 20% while its width is decreased by 20% to form a rectangle, what is the ratio of the area of the rectangle to the area of the square?

- A. 6:5
- B. 23:24
- C. 5:6
- D. 24:25

36. Fill in the blank space(s) with the correct word from the options lettered A-D.

Kurile's wife is in the hospitality\_\_\_\_\_

- A. Activities
- B. Roles
- C. Profession
- D. Callings

37. From the options lettered A-U, choose the most appropriate interpretation for the statement below.

The opposition party is merely making a mountain out of a molehill by insisting that the President resigns. This means that the opposition is\_\_\_\_\_

- A. Defending the president
- B. Exaggerating the situation
- C. Going mountaineering
- D. Suspecting the president

38. From the option lettered A-D, choose the word or group of words that best completes the sentence.

My friends seemed to be having more fun than\_\_\_\_\_

- A. I
- B. Me
- C. Myself
- D. Them

39. In the afternoon, Sonny read 100 pages at the rate of 60 pages per hour, in the evening, when he is tired, he reads another 100 pages at the rate of 40 pages per hour. What was his average rate of reading for the day?

- A. 45
- B. 48
- C. 50
- D. 55

40. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D.

In the sentence "We ATTENDED the seminar together", the capitalized word is an example of \_\_\_\_\_

- A. Preposition
- B. Auxiliary verb
- C. Modal verb
- D. Main verb

41. A university lecturer earns ₦60,000 per month. He pays tax of 10kobo on every naira he earns. Calculate his net income.

- A. ₦54,000
- B. ₦67,000
- C. ₦22,000
- D. ₦72,000

42. From the options lettered A-D, choose the one that best interprets the expression written in capital letters.

All we need, is a CONCERTED EFFORT to combat the epidemic.

- A. Persistent
- B. Dramatic
- C. Joint
- D. Concentrated

43. Fill in the blank space(s) with the correct word, from the options lettered A-D.

When he joined the staff of the school, he had various duties \_\_\_\_\_ to him.

- A. Detailed
- B. Assigned
- C. Prescribed
- D. Enlisted

44. Find the sum of 7<sup>th</sup> terms of the G.P 12, 6, 3.....

- A. 23.76
- B. 27.36
- C. 26.73
- D. 23.81

45. Fill in the blank space(s) with the correct word or group of words, from the option lettered A-D.

In the sentence, "The girl AT THE GATE saw me". The capitalized expression is correctly classified as:

- A. An adverbial phrase
- B. An adjectival phrase
- C. A verbal phrase
- D. A noun phrase

46. From the options lettered A-D, choose the word or group of words that best completes the sentence.

That luggage is for the soldier.

- A. Tall ECOMOG black
- B. Tall black ECOMOG
- C. ECOMOG tall black
- D. Black tall ECOMOG

47. A box contains 5 green and 7 blue identical tennis balls. Two balls are chosen at random from the box without replacement, if the balls are chosen with replacement, find the probability that the balls chosen are still of the same colour.

- A.  $\frac{37}{72}$
- B.  $\frac{42}{73}$
- C.  $\frac{29}{47}$
- D.  $\frac{15}{37}$

48. What is the probability that 3 customers waiting in a bank will be served in the sequence of their arrival at the bank.

- A. 1/6
- B. 1/3
- C. 1/2
- D. 2/3

49. Express 65 to 3 significant figure

- A. 6500
- B. 650
- C. 6,500
- D. 65

50. A jar contains only red, white and blue marbles. The number of red marbles is  $\frac{4}{5}$ , the number of white ones and the number of white ones is  $\frac{3}{4}$ . If there are 470 marbles, how many of them are blue?

- A. 184
- B. 150
- C. 200
- D. 120

### ANSWERS TO UNIPOINT 2012/2013 POST UTME QUESTIONS

1. D 2. B 3. C 4. B 5. D 6. D 7. B 8. C 9. C  
 10. C 12. D 13. B 14. D 15. B 16. A 17. C  
 18. D 19. B 20. - 21. A 22. B 23. D 24. A  
 25. D 26. D 27. D 28. A 29. C 30. B 31. A  
 32. C 33. C 34. B 35. D 36. C 37. B 38. B  
 39. B 40. D 41. A 42. C 43. B 44. D 45. D  
 46. B 47. A 48. A 49. D 50. C

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# UNIPOINT 2014/2015 POST UTME QUESTIONS

**Time: 40 mins**

1. In the progression 7, 12, 17 and 22, what is the expression for the  $n$ th term of the progression?

- A.  $11n - 2$
- B.  $11n + 2$
- C.  $6n + 3$
- D.  $5n + 2$

2. From the option lettered A - D, choose the one that BEST INTERPRETS the expression written in capital letters.

The senior prefect had to CARRY THE CAN because he refused to identify the culprit

- A. Dispose the can of refuse
- B. Accept responsibility
- C. Be made one of the scapegoats
- D. Bear the brunt

3. Fill in the space(s) with the correct question tag.

He has stopped drinking, \_\_\_\_\_

- A. Does he?
- B. Has he?
- C. Hadn't he?
- D. Hasn't he?

4. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D.

I am disappointed \_\_\_\_\_ the way you conducted yourself in the party.

- A. By
- B. For
- C. Due to
- D. At

5. Identify the odd group

- A. Ride, rode, ridden
- B. Wake, woke, woken
- C. Draw, drew, drawn
- D. Lie, lay, laid

6. The second and sixth terms of a G.P are 7 and  $\frac{243}{18}$ , what is their common ratio?

- A. 2.48
- B. 3.68

- C. 4.98
- D. 1.18

7. In the sentence "I left the party because I couldn't hear myself think", the word BECAUSE is an example of

- A. Preposition
- B. Coordinating conjunction
- C. Subordinating conjunction
- D. Indefinite pronoun

8. Find two consecutive odd numbers whose product is 195

- A. 21, 23
- B. 15, 17
- C. 18, 20
- D. 13, 15

9. From the options lettered A-D, choose the word or group of words that best completes the sentence.

My friends seemed to be having more fun than \_\_\_\_\_

- A. I
- B. Me
- C. Myself
- D. Them

10. A girl is 6 years younger than her brother. The product of their age is 135. Find their ages

- A. 15 years, 6 years
- B. 9 years, 3 years
- C. 12 years, 5 years
- D. 15 years, 9 years

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

We are no \_\_\_\_\_ friends

- A. More
- B. Longer
- C. Again
- D. Always

12. From the option lettered A-D, choose the most appropriate interpretation for the sentence below.

The mysterious death of the popular teacher sparked off a wave of protests. This means that his death\_\_\_\_\_

- A. Caused a lot of trouble
- B. Caused a fire outbreak
- C. Took place amidst protests
- D. Always try to be honest

13. In the afternoon, Sonny read 100 pages at the rate of 60 pages per hour, in the evening when he is tired, he reads another 100 pages at the rate of 40 pages per hour. What was his average rate of reading for the day?

- A. 45
- B. 48
- C. 50
- D. 55

14. What is the probability that 3 customers waiting in a bank will be served in the sequence of their arrival at the bank?

- A.  $1/6$
- B.  $1/3$
- C.  $1/2$
- D.  $2/3$

15. Fill in the blank space(s) with the correct word or group of words, from the option lettered A-D

Every community from time immemorial must have had \_\_\_\_\_known and respected for their ability to guide and younger members of their community towards the of the desired goals of their group.

- A. Teachers/direct/attainment
- B. Priests/follow/enforcement
- C. Fathers/flog/creating
- D. Coachers/frustrate/achievement

16. Find the interest on two million dollars at 12% saved for 4 months.

- A. \$40,000
- B. \$60,000
- C. \$80,000
- D. \$4,000

17. Find the sum of 70, 69, 68,..... 21

- A. 4289
- B. 6341
- C. 3412
- D. 2275

18. The probability of three events A, B, C happening are  $1/2$ ,  $2/3$ ,  $1/4$ . Find the probability that events A and C can only occur.

- A.  $2/11$
- B.  $3/11$
- C.  $1/12$
- D.  $1/8$

19. Fill in the blank space(s) with the correct group of words, from the options lettered A - D.

The \_\_\_\_\_came here last week.

- A. Handsome tall young man
- B. Young tall handsome man
- C. Tall handsome young man
- D. Young handsome tall man

20. Fill in the blank space(s) with the correct word or group of words from the option lettered A-D.

That is not your book, it is\_\_\_\_\_

- A. Johns
- B. John's
- C. Johns' own
- D. For John's

21. The statement "My father gave me this watch", rewritten in the passive form becomes:

I \_\_\_\_\_this watch by my father.

- A. Had been given
- B. Am given
- C. Were given
- D. Was given

22. The marks obtained by students in a mathematics test are given below 1, 3, 2, 2, 3, 4, 1, 5, 10, 11, 9, 8, 12, 14. If A is the mean and B is the median, then calculate A - B.

- A. 1.68
- B. 1.57
- C. 2.45
- D. 3.58

23. Express 65 to 3 significant figures

- A. 6500
- B. 650
- C. 6.500
- D. 65

24. The sum of two numbers is twice their difference. If difference of the numbers is  $p$ , find the larger number.

- A.  $p/2$
- B.  $3p/2$
- C.  $5p/2$
- D.  $3p$

25. From the word lettered A-D, choose the one that is OPPOSITE IN MEANING to the word(s) written in capital letters.

She is a PROUD girl.

- A. Arrogant
- B. Stubborn
- C. Humble
- D. Rude

26. A box has 5 black balls and 7 green balls. Two balls are drawn from the box without replacement, find the probability that both balls drawn are black, if drawn with replacement.

- A.  $22/43$
- B.  $25/144$
- C.  $25/12.4$
- D.  $30/111$

27. Find the sum of 7 terms of the G.P 12, 6, 3.....

- A. 23.76
- B. 27.36
- C. 26.73
- D. 23.81

28. A box contains 5 green and 7 blue identical tennis balls. Two balls are chosen at random from the box without replacement, if the balls are chosen with replacement, find the probability that the two balls chosen are still of the same colour.

- A.  $37/72$
- B.  $42/73$
- C.  $29/47$
- D.  $15/37$

29. In a poll, it was noticed that 22 people read biology text book and 37 people read physics text book. If 45 people read either physics or biology text book, find the probability of the people who read both text books i.e. physics and biology.

- A.  $14/45$
- B.  $15/45$
- C.  $16/45$
- D.  $17/45$

30. In a positive number of two digits, the sum of the digits is 15. If the digits are interchanged, the number is increased by 9. Find the number

- A. 87
- B. 78
- C. 96
- D. 69

31. Calculate the rate percent per annum at which ₦2200 will yield ₦2650 in 4 years.

- A. 4%
- B. 21%
- C. 5%
- D. 13%

32. From the options lettered A-D, choose the most appropriate interpretation for the statement below.

The opposition party is merely making a mountain out of molehill by insisting that the President resigns. This means that the opposition is\_\_\_\_\_

- A. Defending the president
- B. Exaggerating the situation
- C. Going mountaineering
- D. Suspecting the president

33. Two airplanes are 300 miles apart and flying towards each other. One is flying at 200 miles per hour and the other is flying at 160 miles per hour. How long will it take for the two planes to meet?

- A. 36 minutes
- B. 50 minutes
- C. 1hr and 12 minutes
- D. 1hr 20 minutes

34. Choose from the options lettered A-D the word that most appropriately completes the sentence below.

Good people are always ready to help those who are not as fortunate as\_\_\_\_\_

- A. Theirs
- B. Them

- C. They
- D. Us

35. Fill in the blank space(s) with the correct word, from the options lettered A-D  
Kunle's wife is in the hospitality\_\_\_\_\_

- A. Activities
- B. Roles
- C. Profession
- D. Callings

36. A beating instrument has 12 resistors and they are placed vertically and they have uniform reducing power. The power of first, second, third and fourth resistors are 3000, 2600, 2200 and 1800 respectively. Find the power of the resistor.

- A. 9500
- B. %00
- C. 9700
- D. -9600

37. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D.

When two or more independent clauses are joined together by using a co-ordinating conjunction, the type of sentence formed is referred to as\_\_\_\_\_

- A. Simple sentence
- B. Compound sentence
- C. Compound-complex sentence
- D. Simple-compound sentence

38. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D n the sentence "Ireland is MUCH BETTER", the capitalized phrase is correctly classified as \_\_\_\_\_

- A. Comparative adverb
- B. Positive adverb
- C. Superlative adverb
- D. Accumulative adverb

39. Diki drives to work in 40 minutes. She take the same route to return home. If her average speed on her way home is half as her average speed on the trip to work, how much time does she spend driving on the round trip?

- A. 1 hour

- B. 1 hour, 20 minutes
- C. 1 hour, 40 minutes
- D. 2 hours

40. From the options lettered A-E, choose the one that BEST INTERPRETS the word(s) written in capital letters.

The discussion became ANIMATED

- A. Specialized
- B. Lively
- C. Intellectual
- D. Unruly

41. From the options lettered A-D, choose the word that best completes the sentence.

Madam Abike turned \_\_\_\_\_13 bags of maize at the first harvest.

- A. On
- B. Out
- C. Up
- D. In

42. From the options lettered A-D, choose then question that is best answered by the statement containing the stressed word which is written in CAPITAL letters.

Oladipo is the MANAGER of the country's best team.

- A. Is Oladipo the coach of the country's best team?
- B. Is Oladipo the manager of the country's best player?
- C. Is Oladipo a manager of the country's worst team?
- D. Was Oladipo the manager of the country's team?

43. Fill in the blank space(s) with the correct word or group of words, from the options lettered A-D.

The word written in capital letters in the sentence "you have to put it IN their food", an example of\_\_\_\_\_

- A. A coordinating conjunction
- B. A subordinating conjunction
- C. An indefinite pronoun
- D. A preposition

44. Two tetrahedral dice with numbering 4, 5, 6, 7 are thrown, find the probability that the sum gotten will be greater than 11.

- A. 5/9
- B. 4/9
- C. 3/8
- D. 2/5

45. Fill in the blank space(s) with the correct word, from the options lettered A-D.

When he joined the staff of the school, he had various duties \_\_\_\_\_ to him.

- A. Detailed
- B. Assigned
- C. Prescribed
- D. Enlisted

46. Which of the following BEST INDICATES a question?

- A. I'll ask him what time it is?
- B. I wonder if he knows the answer to all the questions?
- C. Are you the daughter of the plumber?
- D. Your name is Jack?

47. James and Daniel, owners of J.D chemicals shared their end of the year profit in the ratio of 4:6. If Daniel (D) got ₦4,000 more than James (J), calculate their total annual profit.

- A. ₦22,000
- B. ₦14,000
- C. ₦16,000
- D. ₦2.0,000

48. From the options lettered A-D, choose the one that is OPPOSITE IN MEANING to the word(s) written in capital letters.

His ANTIPATHY to religious ideas made him unpopular.

- A. Remedy
- B. Consciousness
- C. Hostility
- D. Perceptiveness

49. Fill in the blank space with the correct word(s), from the options lettered A-D.

In the sentence "The girl AT THE GATE saw me", the capitalized expression correctly classified as \_\_\_\_\_

- A. An adverbial phrase
- B. An adjectival phrase
- C. A verbal phrase
- D. A noun phrase

50. Fill in the blank space with the word or group of words from the options lettered A-D.

The policeman has gathered \_\_\_\_\_ to complete the investigation.

- A. Few information
- B. Many information
- C. Sufficient information
- D. An information

### ANSWERS TO UNIPOINT 2014/2015 Post UTME QUESTIONS

1. D 2. B 3. D 4. D 5. C 6. D 7. C 8. D 9. B  
10. D 11. B 12. A 13. B 14. A 15. A 16. C  
17. D 18. D 19. C 20. B 21. D 22. C 23. D  
24. B 25. C 26. B 27. D 28. A 29. A 30. B  
31. C 32. B 33. B 34. B 35. C 36. C 37. B  
38. A 39. D 40. B 41. D 42. A 43. D 44. C  
45. B 46. C 47. D 48. B 49. D 50. C

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# UNIPOINT 2015/2016 POST UTME QUESTIONS

**Time: 40 mins**

1. Simplify and solve for x,  $2x^2 + 3y - 8y^2 = 0$

A.  $x = \sqrt{\frac{y(3-8y)}{2}}$

B.  $x = \frac{5y}{2}$

C.  $x = \frac{y(8y-3)}{2}$

D.  $x = \sqrt{\frac{y(8y-3)}{2}}$

2. A trader realizes  $25x - x^2$  naira from the sale of x bags of rice. Find the sum of bags that will give him the maximum profit.

- A. 14  
B. 11  
C.  $12\frac{1}{2}$   
D. 22

3.  $P = \frac{(2xy)}{3c-5y}$ , make y the subject of the formula.

A.  $y = 2x^2 - 5p$

B.  $y = \frac{(2p+5c)}{3}$

C.  $y = \frac{3px}{(2x+5c)}$

D.  $y = \frac{3cp}{(2x+5p)}$

4. The mean of the following numbers 2.3, 2.1, 0.75, 0.25, 2.8, 0.9, 15, and 15 is \_\_\_\_\_

- A. 1.6375  
B. 1.7635  
C. 1.5376  
D. 1.6735

5. When  $V = \frac{kR}{T}$ , find k when  $V=60$ ,  $R = 25$  and  $T = 20$

- A. 54  
B. 46  
C. 45  
D. 48

6. A note book has 145 pages and 15 of them have been used. What fraction of the note remains?

- A.  $\frac{11}{29}$   
B.  $\frac{5}{29}$

C.  $\frac{18}{29}$

D.  $\frac{6}{29}$

7. Make t the subject of the familiar:

$$\frac{3V}{(Vt-W)} = 1 + U$$

A.  $t = \frac{3V}{(1+\frac{3U}{V})} + \frac{W}{V}$

B.  $t = \frac{3}{v(1+u)} + \frac{W}{V}$

C.  $t = \frac{3}{(1+u)} + \frac{W}{V}$

D.  $\frac{3}{v(1+u)} + \frac{W}{V}$

8. A stick of length 1.75cm was measured by a boy as 1.80cm. find the % error in his measurement.

- A.  $\pm 50\%$   
B.  $\pm 27\%$   
C.  $\pm 18\%$   
D.  $\pm 75\%$

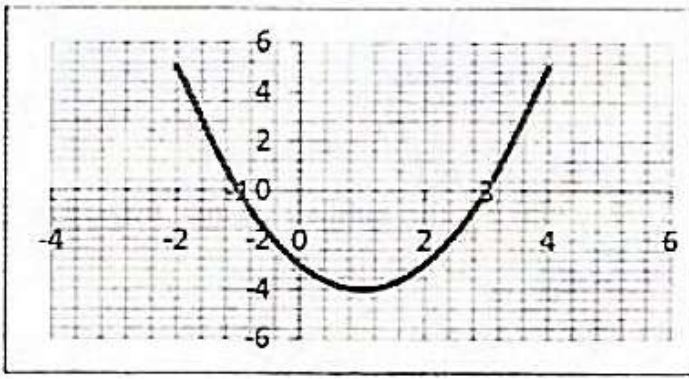
9. If Boneri adds 2 to the numerator of a fraction, the fraction becomes 13. If he subtracts 3 from the denominator of the fraction, it becomes  $\frac{3}{4}$ . What is the fraction?

- A.  $\frac{1}{5}$   
B.  $\frac{2}{3}$   
C.  $\frac{3}{5}$   
D.  $\frac{4}{5}$

10. The time taken for a committee meeting is partly constant and partly varies as the square of the number of members present. If there are fifteen members present, the meeting lasts only 45 minutes, but with twenty-five it takes exactly 2hrs 15 minutes. How long will it last if there are thirty members there?

- A. 3hrs  
B. 3hrs 17mins  
C. 2hrs 19mins  
D. 1 hr 18mins

11. Find the equation of the s.-7-aph shown below



- A.  $y = 2x^2 - 2x + 3$   
 B.  $y = x^2 + 2x + 3$   
 C.  $y = x^2 - 2x + 3$   
 D.  $y = x^2 - 2x - 3$

12. The sum of the roots of a quadratic equation is  $\frac{5}{2}$  and the product of its roots is

4. The quadratic equation is \_\_\_\_\_  
 A.  $2x^2 + 5x + 8 = 0$   
 B.  $2x^2 - 5x + 8 = 0$   
 C.  $2x^2 - 8x + 5 = 0$   
 D.  $2x^2 + 8x - 5 = 0$

13. An object moves in a straight line and the distance  $v$  in meters moved in  $t$  seconds is given by  $v = t^4 - 3t + 2$ . What is the speed at  $t = 3$  secs?

- A. 117m/s  
 B. 105m/s  
 C. 122m/s  
 D. 187m/s

14. Make  $R$  the subject of the formula from the equation  $V = \pi L(R^2) - (R - t)^2$

- A.  $R = \frac{V}{2\pi L t} + \frac{t}{2}$   
 B.  $R = \frac{V^2}{2t^2} - L^2$   
 C.  $R = \frac{V^2 + 2t^2}{2\pi L}$   
 D.  $R = \frac{\pi L^2 + t^2}{2V}$

15. Factorize  $x + y$   $ax - ay$

- A.  $(x - y)(1 - a)$   
 B.  $(x + y)(1 + a)$   
 C.  $(x + y)(1 - a)$   
 D.  $(x - y)(1 + a)$

16. Factorize  $5xy + 90qy - 30y^2 - 15xq$   
 A.  $(15y + 5q)(x - 6y)$   
 B.  $(5y - 15q)(x + 6y)$   
 C.  $(5y - q)(15x - 6y)$   
 D.  $(5y - 15q)(x - 6y)$

17. Factorize  $8! - 5(7!)$

- A.  $4! 7!$   
 B.  $3 - 7!$   
 C.  $4 \times 7!$   
 D.  $3! \times 7!$

18. Sir Daniel Akomah estimated that the amount for producing a piece of furniture would be ₦7,000. He purchased the material and it amounted to ₦7,500. Calculate the percentage error.

- A. 6.67%  
 B. 7.55%  
 C. 9.72%  
 D. 8.26%

19. Which of the following shows the emission of beta particle?

- A.  ${}^{226}_{88}\text{Ra} \rightarrow {}^{222}_{86}\text{Ra} + {}^4_2\text{He}$   
 B.  ${}^{14}_7\text{N} + {}^4_2\text{He} \rightarrow {}^{17}_8\text{O} + {}^1_1\text{H}$   
 C.  ${}^{238}_{92}\text{U} \rightarrow {}^{230}_{90}\text{Th} + {}^4_2\text{He} + 2 {}^0_{-1}\text{e}$   
 D.  ${}^{92}_{84}\text{Po} \rightarrow {}^{90}_{82}\text{Pb} + {}^4_2\text{He}$

20. The particle and wave nature of matter are demonstrated in the equation.

- A.  $\lambda = \frac{c}{f}$   
 B.  $\lambda = 2d \sin \theta$   
 C.  $\lambda = \frac{hc}{E}$   
 D.  $\lambda = \frac{h}{p}$

21. To make a highly sensitive galvanometer, \_\_\_\_\_

- A. The magnetic field should be made stronger  
 B. The number of turns of coil should be large  
 C. The coil should have a small area  
 D. Should be suspended so it can turn easily.

22. All these are devices that uses electromagnet in its mode of operation EXCEPT \_\_\_\_\_

- A. Cell phone  
 B. Transformers  
 C. Microphone

## D. Induction coil

23. A coil of 50 turns is pulled in 0.02 secs from between the poles of a magnet where its area includes  $31 \times 10^{-5}$  weber to a place where its area includes  $1 \times 10^{-5}$  weber. Determine the average emf induced in the coil.

- A. 0.75V
- B. 0.075V
- C. 75V
- D. 7.5V

24. The emitted energy from a radiation is what form?

- A. Continuous energy
- B. Discrete packets of energy
- C. Scattered form of energy
- D. None of the above

25. A silicon material is doped with an element of a certain group and an n-type semi-conductor is formed. The most likely group of the element is\_\_\_\_\_

- A. I
- B. II
- C. III
- D. V

26. Which of these type of galvanometer converts electrical energy to sound?

- A. Avometer
- B. Mirror galvanometer
- C. Moving coil loud speaker
- D. Moving coil galvanometer

27. The equations in the options represents Einstein photoelectric equation EXCEPT

- A.  $E_{max} = hf - W_0$
- B.  $hf = E_{max} + W_0$
- C.  $\frac{1}{2} mv_m^2 = hf - W_0$
- D.  $E_{max} = hf + W_0$

28. Which of the following best describes eddy current?

- A. The induced emf in a circuit is directly proportional to the rate of change of magnetic flux linking the coil
- B. The induced current flows in such a direction to oppose the change producing it.
- C. An electric current induced within the body of a conductor when that conductor either moves through a non-uniform

magnetic field or is in a region where there is a change in magnetic flux

D. The induced emf in a circuit as a result of the change in the current through the circuit

29. In a tuned radio receiver, RLC series circuit for resonance, the inductive and capacitive reactance  $X_L$  and  $X_C$  respectively are related as:

- A.  $X_L = 2X_C$
- B.  $X_L = X_C$
- C.  $X_L = \frac{X_C}{2}$
- D.  $X_L = \frac{1}{X_C}$

30. What is the energy requirement of another energy level from the energy level of  $-3.7\text{eV}$ , if wavelength is  $2.1 \times 10^{-7}\text{m}$ ?

[take  $c = 3.0 \times 10^8\text{m/s}$ ,  $1\text{eV} = 1.6 \times 10^{-19}$ ],  $h = 6.6 \times 10^{-34}$ ]

- A. 5eV
- B. 6eV
- C. 10eV
- D. 8eV

31. Maximum current is obtained in a series RLC circuit when the

- I. total reactance is zero
- II. impedance is equal to the resistance
- III. capacitive reactance is equal to the inductive reactance
- IV. circuit is in resonance

- A. I only
- B. III only
- C. I and II only
- D. I, II III and IV

32. A current of 21A is passed through a 20m length of two conducting wire placed 125cm apart. Determine the force of attraction between the wires assuming the current is flowing in the direction.

- A.  $1.33 \times 10^{-5}\text{N}$
- B.  $4.5 \times 10^{-5}\text{N}$
- C.  $7.1 \times 10^{-5}\text{N}$
- D.  $6.4 \times 10^{-5}\text{N}$

33. The uncertainty principle shows that any point in time the position and the momentum of a particle can be simultaneously known is \_\_\_\_\_

- A. True
- B. False

- C. Both particles can be measured  
D. Only the momentum of the particle can be measured

34. Which of the following is usually used to capture excess neutron produced in a nuclear reactor?

- A. Boron rods  
B. Steel rods  
C. Graphite rods  
D. X-rays

35. A generator manufacturing company was contracted to produce an a.c dynamo but inadvertently produced a d.c dynamo. To correct the error, the\_\_\_\_\_

- A. Armature coil should be made of aluminium  
B. Armature coil should be made of silver  
C. Commutator should be made of silver  
D. Commutator should be replaced with rings

36. Which of the following statements are true of Isotopes?

I. Isotopes of an element has the same properties

II. Isotopes of elements are normally separated using physical methods

III. Isotopes of an element has the same number of protons in their nucleus

- A. I and II only  
B. I and III only  
C. II and III only  
D. I, II and III

37. In an a.c circuit that contains only a capacitor, the current voltage lags behind by\_

- A.  $30^\circ$   
B.  $60^\circ$   
C.  $90^\circ$   
D.  $180^\circ$

**In each of the following questions, choose the option nearest in meaning to the words or phrases in italics.**

38. Kwame is *pessimistic* about our chances of winning the trophy.

- A. Concerned  
B. Indifferent  
C. Happy

- D. Unconvinced  
E. Optimistic

39. Despite the *vociferous* demand for electorate reforms, the ruling pally had its way.

- A. Clamorous  
B. Peaceful  
C. Quiet  
D. Spontaneous  
E. Tranquil

40. The provocation had *an instantaneous* effect on him.

- A. A lasting  
B. An immediate  
C. A terrifying  
D. A momentous  
E. A lasting

41. The sudden death of the king *put paid* to the ambition of the minister.

- A. Contributed  
B. Rewarded  
C. Benefited  
D. Terminated  
E. Started

**In each of the following questions, choose the option opposite in meaning to the words or phrases in italics.**

42. The old woman *smiled* at me and walked away.

- A. Laughed  
B. Frowned  
C. Blushed  
D. Whispered  
E. Moped

43. Many African men prefer \_\_\_\_\_to the white man's monogamy.

- A. Polygamy  
B. Polyandry  
C. Bigamy  
D. Celibacy  
E. Abstinence

44. The statement "the prisoners have been released" is in the \_\_\_\_\_tense.

- A. Past progressive  
B. Present perfect  
C. Present perfect progressive

- D. Past perfect progressive
- E. Present progressive

45. In the sentence "we tried the woman WHOM you interview", the capitalized word is an example of \_\_\_\_\_

- A. Adverb
- B. Coordinating conjunction
- C. Adjective
- D. Indefinite pronoun
- E. Relative pronoun

46. \_\_\_\_\_ compares two different things usually using like or as.

- A. Synecdoche
- B. Oxymoron
- C. Alliteration
- D. Personification
- E. Simile

47. From the word lettered A - E, choose the option that best completes the sentence.

Though Yusuf is a much younger lawyer, you cannot compare his eloquence \_\_\_\_\_ his master's.

- A. By
- B. With
- C. From
- D. For
- E. At

48. Identify the sentence in which the subject and the verb do not agree

- A. Each window and door is securely locked
- B. Neither Taiwo nor Kehinde are happy
- C. Every teacher and student has a role to play
- D. My sister and Confidence are hardworking

49. Which of the following is in passive voice?

- A. The pork has been cooked
- B. Bob cooked the pork
- C. There are four roasters on the grill
- D. All of the above
- E. None of the above

50. Do not *darken my door again*. This means that you should not \_\_\_\_\_ again

- A. Knock my door
- B. Conic to my house

- C. Make my door dark
- D. Come into my door
- E. Block my door

## ANSWERS TO UNIPOINT 2015/2016 POST UTME QUESTIONS

1. D 2. C 3. D 4. A 5. D 6. C 7. D 8. B 9. A  
10. B 11. D 12. B 13. B 14. A 15. C 16. D  
17. B 18. A 19. C 20. D 21. C 22. C 23. A  
24. B 25. D 26. C 27. D 28. C 29. B 30. C  
31. B 32. D 33. B 34. C 35. C 36. D 37. C  
38. D 39. A 40. B 41. D 42. B 43. A 44. B  
45. E 46. E 47. B 48. B 49. A 50. B

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# UNIPOINT 2017/2018 POST UTME QUESTIONS

**Time: 40 mins**

1. A sector of a circle an area of  $55\text{cm}^2$ . If the radius of the circle is  $10\text{cm}$ , calculate the angle of the sector. (Take  $\pi$  as  $22/7$ )

- A. 57
- B. 45
- C. 90
- D. 63

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

- A. ₦4,700
- B. ₦4,900
- C. ₦5,000
- D. ₦4,800

3. If  $y = \cos 3x$ , find  $dy/dx$ .

- A.  $-1/3\sin 3x$
- B.  $3\sin 3x$
- C.  $-3\sin 3x$
- D.  $1/3\sin 3x$

4. Find the size of each exterior angle of a regular octagon.

- A. 36
- B. 45
- C. 51
- D. 40

5. Find the number of ways or selecting subjects from 12 subjects for an examination.

- A. 495
- B. 498
- C. 490
- D. 496

6. The length  $L$  of a simple pendulum varies directly as the square of its period  $T$ . If a pendulum with period 4secs is  $64\text{cm}$  long, find the length of a pendulum whose period is 9 secs.

- A.  $96\text{cm}$
- B.  $144\text{cm}$
- C.  $36\text{cm}$
- D.  $324\text{cm}$

7. If  ${}_3q_5 = {}_7q_8$ , find  $q$ .

- A. 2
- B. 0
- C. 4
- D. 1

8. Solve  $5^{2(x+1)} \times 5^{x+1} = 0.04$

- A.  $1/4$
- B.  $-1/5$
- C.  $-1/3$
- D.  $1/3$

9. if the 9th term of an A.P is live times the 5th term, find the relationship between  $a$  and  $d$ .

- A.  $a + 3d = 0$
- B.  $2a + d = 0$
- C.  $a + 2d = 0$
- D.  $3a + 5d = 0$

10. Simplify  $(3\frac{2}{3} \times \frac{5}{6} \times \frac{2}{4}) \div (\frac{11}{15} \times \frac{3}{4} \times \frac{2}{27})$

- A. 30
- B. 50
- C.  $5\frac{2}{3}$
- D.  $4\frac{1}{3}$

11. The length a person can jump is inversely proportional to his weight. If a  $20\text{kg}$  person can jump  $1.5\text{m}$ , find the constant of proportionality.

- A. 15
- B. 60
- C. 30
- D. 20

12. A sector of a circle has an area of  $55\text{cm}^2$ , If the radius of the circle is  $10\text{cm}$ , calculate the angle of the sector, (Take  $\pi$  as  $22/7$ )

- A. 57
- B. 45
- C. 90
- D. 63

13. what is the probability that 3 customers waiting in a bank will be served in the sequence of their arrival at the bank?

- A.  $1/6$
- B.  $1/3$
- C.  $1/2$
- D.  $2/3$

14. Express 65 to 3 significant

- A. 6500
- B. 650
- C. 6,500
- D. 65

15. A jar contains only red, white and blue marbles. The number of red marbles is  $\frac{4}{5}$  and the number of white ones is  $\frac{3}{4}$ . If there are 470 marbles, how many of them are blue?

- A. 184
- B. 150
- C. 200
- D. 120

16. On a fairly cool rainy day when the temperature is  $20^{\circ}\text{C}$ , the length of a steel rail road track is 20cm. What will be its length on a hot dry day when the temperature is  $40^{\circ}\text{C}$ ?

[Coefficient of linear expansion of steel =  $11 \times 10^{-6}\text{K}^{-1}$ ]

- A. 20.009m
- B. 20.004m
- C. 20.013m
- D. 20.002m

17. A conductor has a diameter of 1.00mm and length 2.00m the resistance of the material is  $0.1\Omega$ , its resistivity is\_\_\_\_\_

- A.  $3.93 \times 10^{-6} \Omega\text{m}$
- B.  $2.55 \times 10^2 \Omega\text{m}$
- C.  $3.93 \times 10^{-8} \Omega\text{m}$
- D.  $2.55 \times 10^2 \Omega\text{m}$

18. A body of mass 12kg travelling at 42m/s collides with a second body of mass 18kg at rest. Calculate their common velocity if the two bodies coalesce after collision.

- A. 1.4m/s
- B. 1.7m/s
- C. 1.5m/s
- D. 2.1m/s

19. If a freely suspended object is pulled to one side and released, it oscillates about the point of suspension. because the

- A. velocity is minimum at the equilibrium point
- B. acceleration is directly proportional to the displacement

C. acceleration is directly proportional to the square of the displacement  
D. motion is directed away from the equilibrium point

20. An object is placed 10m from a pinhole camera of length 25cm. Calculate the linear magnification.

- A.  $2.5 \times 10^1$
- B.  $2.5 \times 10^2$
- C.  $2.5 \times 10^{-1}$
- D.  $2.5 \times 10^{-2}$

21. A perfect emitter or absorber of radiant energy is a

- A. conductor
- B. Black body
- C. Red body
- D. White body

22. In a discharge tube, most of the gas is pumped out so that electricity is conducted at

- A. high pressure
- B. low pressure
- C. Low voltage
- D. steady voltage

23. The phenomenon that shows that increase in pressure lowers the melting point can be observed in

- A. sublimation
- B. condensation
- C. regelation
- D. coagulation

24. Transistors are used for the\_\_\_\_\_

- A. amplification of signals
- B. conversion of a.c to d.c
- C. conversion of d.c. to a.c.
- D. rectification of signals

25. Which of the following has no effect on radiation?

- A. nature of the surface
- B. surface area
- C. temperature
- D. density

26. Which type of motion do the wheels of a moving car undergo?

- A. Translational and rotational motion
- B. Rotational and oscillatory motion

- C. Vibratory and translational motion  
D. Random and translational motion

27. The final oxidation product of alkanol, alkanal and alkanones is\_\_\_\_\_

- A. alkanamide  
B. alkanoyl halide  
C. alkanoic acid  
D. alkanoate

28. Calculate the quantity of electricity in coulombs required to liberate 10g of copper from a copper compound.

[Cu = 64, F = 96500 Cmol<sup>-1</sup>]

- A. 30156.3  
B. 60784.5  
C. 15196.5  
D. 32395.5

29. mass of silver deposited when a current of 10A is passed through a solution of silver salt for 4830s is\_\_\_

- A. 27.0g  
B. 108.0g  
C. 13.5g  
D. 54.0g

30. On heating, which of the following compound will decompose to the free metal, nitrogen (IV) oxide and oxygen?

- A. AgNO<sub>3</sub>  
B. Cu(NO<sub>3</sub>)<sub>2</sub>  
C. NaNO<sub>3</sub>  
D. Ca(NO<sub>3</sub>)<sub>2</sub>

31. The general formula of haloalkanes where X represents the halide is\_\_\_\_\_

- A. C<sub>n</sub>H<sub>2n</sub>X  
B. C<sub>n</sub>H<sub>2n+2</sub>X  
C. C<sub>n</sub>H<sub>2n-1</sub>X  
D. C<sub>n</sub>H<sub>2n+1</sub>X

32. An organic compound has an empirical formula CH<sub>2</sub>O and vapour density of 45.

What is its molecular formula?

- A. C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>  
B. C<sub>3</sub>H<sub>6</sub>O<sub>3</sub>  
C. C<sub>3</sub>H<sub>7</sub>OH  
D. C<sub>2</sub>H<sub>5</sub>OH

33. A metal M displaces zinc from zinc chloride solution. This shows that:

- A. M is more electronegative than zinc

- B. zinc is above hydrogen in the series  
C. electrons flow from zinc to M  
D. M is more electropositive than zinc

34. The process by which atoms are re-arranged into different molecular structures in the petroleum refining process is referred to as\_\_\_\_\_

- A. polymerization  
B. hydrocracking  
C. reforming  
D. catalytic cracking

35. If the electron configuration of an element is 1s<sup>2</sup>2s<sup>2</sup>2p<sup>5</sup>, how many unpaired electrons are there?

- A. 2  
B. 5  
C. 1  
D. 4

36. Oxygen in air can be removed using\_\_\_\_\_

- A. slaked lime  
B. caustic soda solution  
C. lime water  
D. pyrogallol solution

37. A common characteristic of copper and silver in their usage as coinage metals is that they\_\_\_\_\_

- A. are easily oxidized  
B. are not easily oxidized  
C. have high metallic lustre  
D. are not easily reduced

38. The woman won't have lived through the night.

- A. It was likely that the woman died before morning  
B. The woman might not have lived if she hadn't got the right support  
C. From all indications, the woman was taken much worse, though she overcame her ordeal  
D. The woman survived her ordeal but not without some help

39. You may have the pencil, but you can't have the ballpoint \_\_\_\_\_

- A. furthermore  
B. also  
C. either  
D. as well

40. One advantage of the English language in Nigeria is that it puts everyone \_\_\_\_\_

- a common \_\_\_\_\_  
A. in/standing  
B. in/advantage  
C. on/footing  
D. at/equality

41. The scholar examined \_\_\_\_\_, of the subject.

- A. three-part analysis  
B. a three-part analysis  
C. three a part analysed  
D. a part- three analysis

42. Lima doesn't like working in the dark, \_\_\_\_\_?

- A. Did she  
B. has she  
C. will she  
D. Does she

43. When Ajike met her \_\_\_\_\_ husband at the party, she felt like reconciling with him.

- A. caring  
B. strange  
C. loving  
D. estranged

44. Instead of \_\_\_\_\_, she lied.

- A. her to plead  
B. her pleading  
C. pleading  
D. plead

45. I missed the match though it was shown on television on two \_\_\_\_\_ nights.

- A. concurrent  
B. consistent  
C. concrete  
D. consecutive

46. Birds whistle while bears \_\_\_\_\_

- A. growl  
B. bellow  
C. gibber  
D. Purr

47. She \_\_\_\_\_ her hair \_\_\_\_\_ in the room before we left.

- A. smoothened/up  
B. smoothened/on

- C. smoothened/off  
D. smoothed/down

43. In the mammalian male reproductive system, the part that serves as a passage for both urine and semen is the \_\_\_\_\_

- A. bladder  
B. ureter  
C. seminal vesicle  
D. urethra

49. In which part of the human body does the secretion of the growth hormone occur?

- A. Waist region  
B. Gonads  
C. Neck region  
D. Head region

50. The most effective method of dealing with non-biodegradable pollutants is by \_\_\_\_\_

- A. dumping  
B. burying  
C. incineration  
D. recycling.

## ANSWERS TO UNIPOINT 2017/2018 POST UTME QUESTIONS

1. A 2. C 3. C 4. B 5. A 6. D 7. C 8. C 9. A  
10. B 11. C 12. A 13. A 14. D 15. C 16. B  
17. C 18. B 19. C 19. D 20. D 21. B 22. B  
23. C 24. A 25. D 26. A 27. C 28. A 29. D  
30. A 31. D 32. B 33. D 34. C 35. C 36. D  
37. B 38. A 39. B 40. C 41. B 42. D 43. D  
44. C 45. D 46. A 47. A 48. D 49. D 50. D

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