

D.  $\frac{8}{9}$

34. Sum of external angles of a 5-sided polygon is \_\_\_\_\_.

- A.  $90^\circ(2n - 4)$
- B.  $180^\circ(n - 2)$
- C.  $360^\circ$
- D. cannot be determined without actual value of  $n$

35. A man covers some distance in 2 hrs at a certain speed. He would have been slower by 4 km/hr if he had taken 2 hrs more to cover the same distance. The speed is \_\_\_\_\_ km/hr.

... of the following countries is the FIFA World Cup champion in the year 2022?

- A. Argentina
- B. England
- C. France
- D. Morocco

73. Earth completes one revolution in \_\_\_\_\_.

- A. one day
- B. one year
- C. six months
- D. three years

74. Which of the following storage devices can store maximum amount of data?

- A. Compact disc
- B. Floppy disc
- C. Hard disc
- D. ROM

75. Skull protects our \_\_\_\_\_.

- A. brain
- B. eyes
- C. heart
- D. liver

**36.** If  $a + b = 10$  and  $a - b = 6$ , then the value of  $ab$  is

- A. 16
- B. 32
- C. 48
- D. 64

**37.** The value of  $m$  in the ratio  $3 : m - 7 = 9 : 12$  is

- A. -11      cross multiply  
 $3 : (m-7) = 9 : 12$   
 $3 \cdot 12 = 9 \cdot (m-7)$   
 $36 = 9m - 63$
- B. -3      add 63 on both sides  
 $99 = 9m$
- C. 3      divide by 9
- D. 11       $m = 11$

21. A boy cycles for 4 hours with a speed of 6km/h and covers 9km by foot in 7 hours. The average speed of boy is \_\_\_\_\_.

- A. 3.0 km/h
- B. 3.5 km/h
- C. 7.3 km/h
- D. 8.25 km/h

speed\*time=  $6 * 4 = 24$   
coverd by foot = 9  
 $24 + 9 = 33$  km  
total time=  $4 + 7 = 11$  h  
average speed formula  
total Distance/total Time=  
 $33 / 11 = 3$  km/h

*Four lettered pairs (A to D) follow a related pair of words given in the question. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair in capital letters.*

**16. FLOWER: BUNCH::**

- A. captain: team
- B. man: men
- C. manager: business
- D. ship: fleet

**17. BLACKSMITH: IRON::**

- A. cook: kitchen
- B. farmer: grower
- C. potter: clay
- D. shoemaker: cobbler

**COW: CALF::**

- A. dog: bark
- B. fish: water
- C. horse: foal
- D. tortoise: shell

**ISE: FOOLISH::**

- A. bold: brave
- B. free: fair
- C. simple: easy
- D. single: many

**20. COMPUTER: MONITOR::**

- A. bicycle: wheel
- B. pencil: eraser
- C. purse: money
- D. road: traffic

## ISLAMIAT/ETHICS

46. The feeling of remorse has always been connected with \_\_\_\_\_.

- A. conscience
- B. heart
- C. psyche
- D. soul

47. The Namaz Janaza is \_\_\_\_\_.

- A. Farz
- B. Farz-e-kifaya
- C. Sunnah
- D. Wajib

48. The second battle of Islam "Uhud" was fought is the name of a \_\_\_\_\_.

- A. hill
- B. lake
- C. ocean
- D. sea

49. Zakat is the \_\_\_\_\_ fundamental pillar of Islam.

- A. 1<sup>st</sup>
- B. 2<sup>nd</sup>
- C. 3<sup>rd</sup>
- D. 4<sup>th</sup>

50. Numerically smaller number of people than the rest of population of the state, is known as \_\_\_\_\_.

- A. follower
- B. minority
- C. sect
- D. subordinate

61. Cybercrime means crimes committed through \_\_\_\_\_

- A. tv
- B. radio
- C. mobile and computer
- D. newspaper

62. Allama Muhammad Iqbal was born in \_\_\_\_\_

- A. Bombay
- B. Karachi
- C. Lahore
- D. Sialkot

63. Pakistan's ideology is devised from \_\_\_\_\_

- A. British occupation of Sub-continent
- B. Islam
- C. Land
- D. Nation

64. Who contested in the presidential elections of 1965 against General Ayub Khan?

- A. Khan Abdul Wali Khan
- B. Miss Fatima Jinnah
- C. Sheikh Mujeeb
- D. Syed Maududi

65. In 1956 Constitution the designation of governor general was changed to \_\_\_\_\_.

- A. Chief Minister
- B. Governor
- C. President
- D. Prime Minister

51. Who accompanied Muhammad (SAW) during migration to Madina?

- A. Hazrat Ali (R.A)
- B. Hazrat Abu Bakar (R.A)
- C. Hazrat Umar (R.A)
- D. Hazrat Usman (R.A)

52. The foremost right of parents is to \_\_\_\_\_.

- A. give them proper time
- B. keep them smiling
- C. support them
- D. treat them kindly

53. Which of the following is the shortest surah of the Holy Quran?

- A. Surah Al-Alaq
- B. Surah Al-Kausar
- C. Surah Al-Nass
- D. Surah An-Nasr

54. The most important role in building a moral system is based on \_\_\_\_\_.

- A. individual
- B. legislation
- C. religion
- D. society

55. A man who NOT follows any religion is called \_\_\_\_\_.

- A. atheist
- B. Muslim
- C. sin
- D. transgressor

## PAKISTAN STUDIES

1986, 1st year Islamic School examination test paper

56. Which of the following is not a province of Pakistan?
- Alligash
  - Punjab
  - Sindh
  - Manglaud
57. Mughal Emperor Jahangir's tomb is situated in which of the following cities?
- Faisalabad
  - Lahore
  - Multan
  - Rawalpindi
58. All India Muslim League was established in which of the following cities?
- Dacca
  - Delhi
  - Lahore
  - Lucknow
59. Which language was declared as the national language of the country under 1973 Constitution of Pakistan?
- Bengali
  - English
  - Sindhi
  - Urdu
60. Under which constitutional amendment the name of NWFP was renamed as Khyber Pakhtunkhwa?
- 8<sup>th</sup>
  - 13<sup>th</sup>
  - 17<sup>th</sup>
  - 18<sup>th</sup>

### PAKISTAN STUDIES

56. The Mausoleum of Sheikh Bahauddin Zakariya is located in \_\_\_\_\_.

- A. Lahore
- B. Multan
- C. Pakpattan
- D. Uch shrif

57. Quaid-e-Azam presented his fourteen points in response to \_\_\_\_\_.

- A. Khilafat Movement
- B. Lucknow Pact
- C. Nehru Report
- D. Simon Commission

58. A bill passed by the Parliament is then submitted to the final approval of the \_\_\_\_\_ of Pakistan.

- A. Advocate General
- B. Chief Justice
- C. President
- D. Prime Minister

59. Geographically Pakistan is located in \_\_\_\_\_.

- A. Central Asia
- B. Middle East
- C. South Asia
- D. Southeast Asia

60. The basis of our national unity is \_\_\_\_\_.

- A. All India Muslim League
- B. Geography
- C. History
- D. Islam

61. River \_\_\_\_\_ provides Pakistan with its best agriculture land and irrigation system.

- A. Chenab
- B. Indus
- C. Ravi
- D. Sutlej

62. Senate is the upper house of the Parliament of Pakistan which represents the \_\_\_\_\_.

- A. people
- B. political parties
- C. provinces
- D. youth

63. Which valley is called "Pearl of the Himalaya"?

- A. Chitral
- B. Kaghan
- C. Naran
- D. Swat

64. Din-e-Elahi was founded by which of the following Mughal emperor?

- A. Akbar
- B. Aurangzeb Alamgir
- C. Bahadur Shah Zafar
- D. Shah Jahan

65. When Zulfikar Ali Bhutto became the Foreign Minister?

- A. 1961
- B. 1963
- C. 1964
- D. 1965

31742

F-22-1102-ARTS & HUMANITIES-YELLOW-110623

31742

F-22-1102-ARTS & HUMANITIES-YELLOW-110623

25. If the cost of 2 copies and 3 books is Rs. 1300 and cost of 5 copies and 1 book is 2600. Find the cost of a copy and a book.

- A. Rs. 100
- B. Rs. 500
- C. Rs. 600
- D. Rs. 50000

26. Abdullah gave Rs. 150 to Umar and Umar take Rs. 65 to Ahmed. After this all of them have same money. How much more Abdullah has than Ahmed?

- A. Rs. 30
- B. Rs. 35
- C. Rs. 85
- D. Rs. 215

27. Ahmed added to containers of paint containing 40 liters and 55 liters of paint. After using 49 liters in room and 34 liters in kitchen, how much paint is left?

- A. 7 liters
- B. 12 liters
- C. 21 liters
- D. 22 liters

28. If  $f(x) = 5a$  then it is called \_\_\_\_\_ function.

- A. constant
- B. identity
- C. one-one
- D. quadratic

29. The quadratic equation with roots 2, -3 is \_\_\_\_\_.

- A.  $x^2 - x + 6$
- B.  $x^2 + x + 6 = 0$
- C.  $x^2 + x - 6 = 0$
- D.  $x^2 - x - 6 = 0$

30. The mode

- A.
- B.
- C.
- D.

31. The mea

- A.
- B.
- C.
- D.

32. What is  
22, 29,

- A.
- B.
- C.
- D.

33. A coin is  
doubled

- A.
- B.
- C.
- D.

34. Factors

- A.
- B.
- C.
- D.



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Yesterday, 23:50



21. The graph of the equation  $x^2 + 2x + 3 = 8y$  is \_\_\_\_\_.

A. down  
B. left  
C. right  
D. up

22. Two lighthouses flash their lights every 20 seconds respectively. If they flash together at 9:00:50, they will flash together again at \_\_\_\_\_.

A. 9:00:50  
B. 9:01:00  
C. 9:10:00  
D. 9:15:45

23. Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in \_\_\_\_\_ days if all of them work together.

A. 01  
B. 02  
C. 03  
D. 20

24. Which of the following is a whole number?

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

If  $\tan A = 5/4$  then  $\cot B =$  \_\_\_\_\_.

A. 4/5  
B. 5/4  
C. 4  
D. 5

25. Which of the following is a perfect number?

A. 28  
B. 28  
C. 32  
D. 32

26. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is \_\_\_\_\_.

A. 0  
B. 02  
C. 10  
D. 20

27. The graph of the function  $y = |3x - 9|$  has its wedge at \_\_\_\_\_.

A. -9  
B. -3  
C. 03  
D. 07

28. Which of the following is an irrational number?

A. 1.345345345...  
B.  $\sqrt{5}$   
C. 18.33333333  
D. 35

29. The sale price of a T-shirt is Rs. 660 with a profit of 10%. The cost price of shirt is Rs. \_\_\_\_\_.

A. 550  
B. 600  
C. 620  
D. 700

30. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is \_\_\_\_\_.

A. 40 years  
B. 47 years  
C. 50 years  
D. 53 years

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42.  $2x + 5y = -3x$ , if  $x = 2$  and  $y = -1$  then value of

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

43. The range of the data 3, 5, 4, 6, 9, 12, 13, 15 is

- A. 0.2
- B. 0.5
- C. 1.4
- D. 2.0

44. Write the statement in the form of equation, relating  $\theta$  from  $\theta = \sin^{-1} x$  number to get  $\theta$ .

- A.  $-4x + 8 = 8$
- B.  $4x - 8 = 8$
- C.  $-4x + 8 = -8$
- D.  $4x - 8 = -8$

45. The range of  $\theta(x) = \frac{x^2 - 5}{x^2 + 5}$  is

- A.  $\{0\}$
- B. real numbers =  $\{-2\sqrt{5}\}$
- C. real numbers =  $\{0\}$
- D. real numbers =  $\{0\}$

## PHYSICS

46. Product that has no

1. self  
2. second  
3. third

4. instrument at the end of transmis-

5. changes the voltage from 2400 volt to 1700

6. highest number of turns, while it has 40

7. 100  
8. 200  
9. 150  
10. 300

11. magnetic in which volume of the system re-

12. 100  
13. 200  
14. 150  
15. 300

16. adiabatic  
17. isobaric  
18. isochoric  
19. isothermal

20. acceleration  
21. displacement  
22. position  
23. retardation

24. A device which converts alternating current into pulsating current/voltage is known as

25. amplifier  
diode  
rectifier  
transformer

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**QUANTITATIVE REASNING**

21. The graph of the equation  $y = 2x + 3$  is a line. If the line is reflected across the x-axis, it will be shifted \_\_\_\_\_.
- down
  - left
  - right
  - up
22. Two lighthouses flash their lights every 20 seconds respectively. If they flash together at 9:00:00, they will flash together again at \_\_\_\_\_.
- 9:00:54
  - 9:01:00
  - 9:10:00
  - 9:15:45
23. Alvin can do a work in 4 days whereas Ursula can do the same work in 5 days and Alison can do it in 6 days. They can do the work in \_\_\_\_\_ days if all three work together.
- 0.1
  - 0.2
  - 0.3
  - 20

Which of the following is a whole number?

- 2
- $\frac{2}{5}$
- $\frac{5}{2}$
- 5

If  $\tan A = \frac{3}{4}$  then  $\cot B =$  \_\_\_\_\_.

- $\frac{4}{3}$
- $\frac{5}{3}$
- 4
- 5

24. Which of the following is a perfect number?

- 34
- 46
- 48
- 56

25. If the function  $y = 13x - 9$  has its wedge at \_\_\_\_\_.

- 9
- 4
- 13
- 97

26. Which of the following is an irrational number?

- 1.345345345...
- $\sqrt{5}$
- 18.53333333...
- 33

27. Purchase price of a T-shirt is Rs. 500 with a profit of 50%. The cost price of shirt is Rs. \_\_\_\_\_.

- 550
- 600
- 675
- 700

28. The age of a father is 1.2 times the age of his son. After 5 years the age of father is 8 times the age of his son. The age of father after 3 years is \_\_\_\_\_.

- 40 years
- 47 years
- 50 years
- 53 years

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EDUCATION COMMISSION  
NUMBER SLIP . Test

10. The instruction \_\_\_\_\_ you to switch off electric equipment before you go out.

- A. tell
- B. tells
- C. to tell
- D. told

11. Yesterday I went to a party. Now I am going to tell you what I \_\_\_\_\_ when I arrived.

- A. saw
- B. see
- C. seeing
- D. seen

12. We were late and \_\_\_\_\_ managed to catch the train.

- A. fast
- B. hardly
- C. hurriedly
- D. scarcely

13. The goods were never delivered \_\_\_\_\_ the promise we had received.

- A. although
- B. because
- C. in spite of
- D. yet

### Questions 14-18

For many years afterwards, Lagos was always associated with electric lights and motorcars in Obi's mind. Even after he had at last visited the city and spent a few days there before flying to the United Kingdom his views did not change very much. Of course, he did not see much of Lagos then. His mind was, as it were, on higher things. He spent the few days with his 'country-man' Joseph Okeke, a clerk in the Survey Department. Obi and Joseph had been classmates at the Umuofia C. M. S Central School. But Joseph did not go on to a secondary school because he was too old, and his parents were poor. He had joined the

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Carried out by [REDACTED]

Victim No. [REDACTED]

42.  $2x + 5y = -3x$ , if  $x = 2$  and  $y = -1$  then value of  
A. -3  
B. 1/2  
C. 2  
D. 3

43. The range of the data 3, 5, 4, 6, 9, 12, 13, 11, 10  
A. 0.2  
B. 0.5  
C. 1.4  
D. 2.0

44. Write the statement in the form of equation, relating  
 $\theta$  from  $\theta = \text{time} \times \text{number}$  to get  $\theta$ .  
A.  $-4x + 8 = 8$   
B.  $4x - 8 = 8$   
C.  $-4x + 8 = -8$   
D.  $4x - 8 = -8$

45. The range of  $f(x) = \frac{x^2 - 5}{x^2 + 5}$   
A.  $\{x | x \in \mathbb{R}\}$   
B. real numbers  $= \{-2\sqrt{5}\}$   
C. real numbers  $= \{x | x \neq 0\}$   
D. real numbers  $= \{0\}$

## PHYSICS

46. A current that has no

A. drift current  
B. permanent

C. Ammeter  
D. voltmeter at the end of transmission

E. changes the voltage from 2400 volt to 1700

F. high number of turns, while it has 40

G. 100  
H. 200  
I. 150  
J. 300

K. magnetic field is called

L. adiabatic  
M. isobaric  
N. isothermal

O. gradient of velocity-time graph describes

P. acceleration  
Q. displacement  
R. position  
S. retardation

T. A device which converts alternating current  
into pulsating current/voltage is known as  
amplifier  
diode  
rectifier  
transformer

EX-  
S-  
S-  
S-

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Do not write or mark anything in this box.

51. The measurement of wavelength and intensities of electromagnetic radiation emitted or absorbed by atoms is known as \_\_\_\_\_ spectra.

- A. atomic
- B. light
- C. molecular
- D. solar

52. A 70 Kg boy runs up hill through height of 3m in 2s, what will be average power?

- A. 850 Watt
- B. 930 Watt
- C. 1010 Watt
- D. 1030 Watt

53. The SI unit of magnetic flux is Weber. One Weber can also be expressed as \_\_\_\_\_.

- A. Joule/Ampere
- B. Joule/meter
- C. Newton/meter
- D. Tesla/m<sup>2</sup>

CHEMISTRY  
The following has  
- mass  
- state  
- time  
- name  
- chemistry is the sci-  
- ence of studying a chemical  
- heat  
- pressure  
- temperature  
- one of the follo-  
- gence?

- A. PbO
- B. Pb<sub>3</sub>O<sub>4</sub>
- C. PbO
- D. PbO<sub>2</sub>

What is the per-  
cent solution in which  
1m<sup>3</sup> of the sol-

- A. 1%
- B. 1.3%
- C. 2.7%
- D. 4%

56. Which one  
attracts  
partially

- A.
- B.
- C.

### ISLAMIA/ETHICS

46. Sahi-Bukhari, a well-known book of Hadith is written by \_\_\_\_\_.

- A. Imam Abu Daud
- B. Imam Ibn Majah
- C. Muhammed Bin Isa
- D. Muhammad Bin Ismail

47. Which of the following Prophets is called Abu-al-Bashar?

- A. Hazrat Adam (A.S)
- B. Hazrat Ibrahim (A.S)
- C. Hazrat Noah (A.S)
- D. Hazrat Sulaiman (A.S)

48. The importance of ethics in society is to promote \_\_\_\_\_.

- A. child protection
- B. discrimination and inequality
- C. fairness and justice
- D. only the rights of minorities

49. Ethics are moral principles and values which \_\_\_\_\_.

- A. are legally enforceable
- B. govern the actions of an individual
- C. guide a firm's behavior
- D. provide police with rules on how to behave

50. Qurbani during Hajj is performed at \_\_\_\_\_.

- A. Arafat
- B. Mina
- C. Muzdalifa
- D. Safa

51. Which of the following is the shortest Surah of Holy Quran?

- A. Surah Al-Fatiha
- B. Surah Al-Ikhlas
- C. Surah Al-Kausar
- D. Surah Al-Has

52. Every religion teaches the lesson of \_\_\_\_\_.

- A. absolute certainty
- B. hope
- C. introspection
- D. self-love

53. The foremost right of parents is to \_\_\_\_\_.

- A. give them proper time
- B. keep them smiling
- C. support them
- D. treat them kindly

54. Shab-e-Qadar (Night of Value) falls in the month of \_\_\_\_\_.

- A. Rabi-ul-Awal
- B. Rajab
- C. Ramzan
- D. Shaban

55. Hazrat Muhammad (PBUH) declared \_\_\_\_\_ a key to paradise.

- A. fasting
- B. hajj
- C. jihad
- D. salat

### PAKISTAN STUDIES

56. The Mausoleum of Sheikh Ghawadhi Umaria is located in \_\_\_\_\_.
- A. Lahore
  - B. Multan
  - C. Peshawar
  - D. Uch Sharif
57. Quaid-e-Azam presented his famous speech in response to \_\_\_\_\_.
- A. Khilafat Movement
  - B. Lucknow Pact
  - C. Nehru Report
  - D. Simon Commission
58. A bill passed by the Parliament is then submitted to the final approval of the \_\_\_\_\_ of Pakistan.
- A. Advocate General
  - B. Chief Justice
  - C. President
  - D. Prime Minister
59. Geographically Pakistan is located in \_\_\_\_\_.
- A. Central Asia
  - B. Middle East
  - C. South Asia
  - D. Southeast Asia
60. The basis of our national unity is \_\_\_\_\_.
- A. All India Muslim League
  - B. Geography
  - C. History
  - D. Islam
61. \_\_\_\_\_ provides Pakistan with its best agriculture land and irrigation system.
- A. Chenab
  - B. Indus
  - C. Ravi
  - D. Sutlej
62. Senate is the upper house of the Parliament of Pakistan which represents the \_\_\_\_\_.
- A. people
  - B. political parties
  - C. provinces
  - D. youth
63. Which valley is called "Pearl of the Hindukush"?
- A. Chitral
  - B. Kaghan
  - C. Bara
  - D. Swat
64. Durr-i-Daulah was founded by which of the following Mughal emperors?
- A. Akbar
  - B. Aurangzeb Alamgir
  - C. Bahadur Shah Zafar
  - D. Shah Jahan
65. When Zulfikar Ali Bhutto became the Foreign Minister?
- A. 1951
  - B. 1963
  - C. 1964
  - D. 1965

## GENERAL KNOWLEDGE

66. 'Air Blue' is the airline of \_\_\_\_\_.

- A. Britain
- B. Canada
- C. Japan
- D. Pakistan

67. Mohammed Bin Salman is the Crown prince and Prime Minister of \_\_\_\_\_.

- A. Dubai
- B. Oman
- C. Qatar
- D. Saudi Arabia

68. The nearest planet to the earth is \_\_\_\_\_.

- A. Mars
- B. Mercury
- C. Moon
- D. Venus

69. Capital city of China is \_\_\_\_\_.

- A. Beijing
- B. Shanghai
- C. Tianjin
- D. Wuhan

70. '\$' is the symbol of \_\_\_\_\_ currency.

- A. Euro
- B. Pound Sterling
- C. Riyal
- D. US Dollar

71. Nelson Mandela was a \_\_\_\_\_ revolutionary and political leader.

- A. American
- B. Canadian
- C. Chinese
- D. South African

72. Elizabeth II was the queen of \_\_\_\_\_.

- A. Brazil
- B. Japan
- C. The United Kingdom
- D. The United States

73. February 5 is observed annually as \_\_\_\_\_.

- A. Accension Day
- B. Black Day
- C. Kashmir's Solidarity Day
- D. Martyrs Day

74. In human body blood and wastes are filtered by \_\_\_\_\_.

- A. brain
- B. heart
- C. kidneys
- D. lungs

75. Leo Messi is a professional \_\_\_\_\_ belongs to Argentina.

- A. boxer
- B. cricketer
- C. footballer
- D. swimmer



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F-22-1102-ARTS & HUMANITIES-YELLOW-1106  
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36. If  $a + b = 10$  and  $a - b = 6$ , then the value of  $ab$  is \_\_\_\_\_.
- A. 16
  - B. 32
  - C. 48
  - D. 64
37. The value of  $m$  in the ratio  $3:m - 2 = 9:12$  is \_\_\_\_\_.
- A. -11
  - B. -3
  - C. 3
  - D. 11
38. The linear equation  $3x = 15$  represents \_\_\_\_\_.
- A. horizontal
  - B. oblique
  - C. vertical
  - D. y-axis
39. If  $A:B = 5:7$  and  $C:B = 3:7$  then  $A:B:C =$  \_\_\_\_\_.
- A. 5:7:5
  - B. 7:5:7
  - C. 25:35:49
  - D. 49:35:25
40.  $38 \cdot [36 \cdot 2(5 - 7 + 6)] + 4 =$  \_\_\_\_\_.
- A. 5/2
  - B. 7
  - C. 31
  - D. 32
41. If the cost of 2 hens and 3 goats is Rs. 47000 and the cost of 5 hens and 1 goat is Rs. 20000. What is the cost of 1 hen?
- A. Rs. 1000
  - B. Rs. 15000
  - C. Rs. 10000
  - D. Rs. 20000
42. Which of the following is a whole number?
- A. -10
  - B. -3.5
  - C. 0
  - D.  $\frac{3}{7}$
43. The quadratic equation with roots 3, 9 is \_\_\_\_\_.
- A.  $x^2 + x = 0$
  - B.  $x^2 + x + 3 = 0$
  - C.  $x^2 + 3x = 0$
  - D.  $x^2 - 3x = 0$
44. Pipe A can fill a tank in 2 hours, pipe B can fill the tank in 1 hour 30 minutes, a pipe C can fill it in 2 hours 30 minutes and pipe D can fill it in 1 hour 45 minutes. Which pipe is more efficient?
- A. A
  - B. B
  - C. C
  - D. D
45. Abdallah gave Rs. 50 to Umar and Umar gave Rs. 65 to Ahmed. After this all of them have same money. How much Abdallah has more than Umar?
- A. Rs. 15
  - B. Rs. 35
  - C. Rs. 50
  - D. Rs. 115

## VERBAL REASONING

Four lettered pairs (A to D) follow a related pair of words given in the question. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair in capital letters.

1. SWIM: WATER::

- A. fire: flame
- B. fly: air
- C. ice: snow
- D. play: show

2. OPEN: SHUT::

- A. rain: foul
- B. read: study
- C. simple: easy
- D. smile: happy

3. SLEEP: AWAKE::

- A. expect: hope
- B. rise: fall
- C. waste: left-over
- D. watch: see

4. HEAD: HAIR::

- A. brain: mind
- B. eye: see
- C. fingers: nails
- D. leg: calf

5. HOUSE: ROOF::

- A. chimney: pipe
- B. country: land
- C. door: gate
- D. mountain: peak



Choose the lettered word or phrase that is NEARLY SIMILAR in meaning to the word in capital letters.

6. The AUDIENCES are \_\_\_\_\_ of a party.
- A. enemies
  - B. organizers
  - C. players
  - D. viewers

7. In something DEVELOPS it \_\_\_\_\_.
- A. fails
  - B. grows
  - C. performs
  - D. stops

Choose the lettered word or phrase that is NEARLY OPPOSITE in meaning to the word in capital letters.

8. He is a SHREWD fellow and not \_\_\_\_\_.
- A. cooperative
  - B. cruel
  - C. dull
  - D. honest
9. DOWDY atmosphere is not \_\_\_\_\_.
- A. calm
  - B. cheerful
  - C. dangerous
  - D. healthy

Complete the sentences by choosing the best option, from the given lettered choices (A to D) below each.

10. Enviro airlines plane \_\_\_\_\_ ten minutes ago.
- A. has landed
  - B. land
  - C. landed
  - D. was landed

11. Someone must deal with the situation \_\_\_\_\_ the split.
- A. beside
  - B. by
  - C. at
  - D. on

12. Though the doors were closed but we could still hear the \_\_\_\_\_ of laughter.

- A. conversation
- B. roars
- C. voices
- D. whispers

13. Which team \_\_\_\_\_ the game?
- A. did it win
  - B. did they win
  - C. won
  - D. won it

14. I'll be back as soon as I \_\_\_\_\_ my clothes.
- A. change
  - B. changed
  - C. changes
  - D. have changed



F-22-1102-ARTS & HUMANITIES-YELLOW-#31742

F-22-1102-ARTS & HUMANITIES-YELLOW-110623-  
#31742

16. Factors of  $x^2 + 4x^2 - 21x = 0$  are \_\_\_\_\_.
- 7, -3, 0
  - 7, 3, 0
  - 3, 7, 0
  - 3, 7, 0
17. Two dice are rolled. What is the probability of getting same faces on top?
- 5/36
  - 1/6
  - 7/36
  - 1
18. Ahmed added two containers of paint containing 4 liters and 55 liters of paint. After using 43.3 liters in room and 34.7 liters in kitchen, how much paint is left?
- 10 liters
  - 11 liters
  - 12 liters
  - 21 liters
19. If  $f(x) = 5x$  then it is called \_\_\_\_\_ function.
- constant
  - identity
  - one-one
  - quadratic
20. The sale price of a book is Rs. 856 with a profit of 7%. What is the cost price of book?
- Rs. 795
  - Rs. 796.08
  - Rs. 800
  - Rs. 805
21. What is the volume of sphere whose radius is 10.5cm?
- (Take  $\pi = 22/7$ )
- 4651 cm<sup>3</sup>
  - 4851 cm<sup>3</sup>
  - 5055 cm<sup>3</sup>
  - 38808 cm<sup>3</sup>
22. Simplify  $\frac{13}{5-2}$ .
- 1
  - 3
  - 4
  - 5
23. Car A is moving with a speed of 60km/h and car B is moving with a speed of 30km/h. What is their relative speed if they are moving in same direction?
- 10km/h
  - 25km/h
  - 50km/h
  - 70km/h
24. If  $f(x) = x^2 + 5x + 20$  and  $f(-2) = -6$  then value of k is \_\_\_\_\_.
- 6
  - 37/5
  - 37/5
  - 8
25. The additive inverse of 15 is \_\_\_\_\_.
- 15
  - 1/15
  - 1/15
  - 15

20. If you 'hone' something you \_\_\_\_\_ it.

- A. create
- B. design
- C. improve
- D. sell

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31742

## QUANTITATIVE REASONING

21. Number of lines of symmetry that can be passes through regular hexagon is \_\_\_\_\_.

- A. 1
- B. 2
- C. 3
- D. 6

22. The mode in the data 2, 3, 4, 4, 5, 6, 8, 8, 6, 5, 2, 3 is \_\_\_\_\_.

- A. 2
- B. 5
- C. 8
- D. No mode

23. What is the next term in the sequence 1, 2, 4, 7, 11, 16,  
22, 29?

- A. 37
- B. 39
- C. 41
- D. 57

24. What is the angle between the hands of a clock at  
6 O'clock?

- A.  $90^\circ$
- B.  $120^\circ$
- C.  $150^\circ$
- D.  $180^\circ$

25. The mean value of first six natural numbers is \_\_\_\_\_.

- A. 2
- B. 2.5
- C. 3.5
- D. 15



## QUANTITATIVE REASONING

21. The graph of the equation  $x^2 + 2x + 3 = 8y$  is concave \_\_\_\_\_.
- A. down
  - B. left
  - C. right
  - D. up
22. Two lighthouses flash their lights every 20 seconds and 30 seconds respectively. If they flash together at 9:00, they will flash together again at \_\_\_\_\_.
- A. 9:00:50
  - B. 9:01:00
  - C. 9:10:00
  - D. 9:15:45
3. Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in \_\_\_\_\_ days if all of them work together.
- A. 01
  - B. 02
  - C. 03
  - D. 20
4. Which of the following is a whole number?
- A. -2
  - B.  $\frac{2}{5}$
  - C.  $\frac{5}{3}$
  - D. 5
- If  $\tan A = \frac{5}{4}$  then  $\cot B =$  \_\_\_\_\_.
- A.  $\frac{4}{5}$
  - B.  $\frac{5}{4}$
  - C. 4
  - D. 5
26. Which of the following is a perfect number?
- A. 24
  - B. 26
  - C. 28
  - D. 32
27. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is \_\_\_\_\_.
- A. 0
  - B. 02
  - C. 10
  - D. 20
28. The graph of the function  $y = |3x - 9|$  has its wedge at \_\_\_\_\_.
- A. -9
  - B. -3
  - C. 03
  - D. 07
29. Which of the following is an irrational number?
- A. 1.345345345...
  - B.  $\sqrt{5}$
  - C. 18.33333333
  - D. 35
30. The sale price of a T-shirt is Rs. 660 with a profit of 10%. The cost price of shirt is Rs. \_\_\_\_\_.
- A. 550
  - B. 600
  - C. 620
  - D. 700
31. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is \_\_\_\_\_.
- A. 40 years
  - B. 47 years
  - C. 50 years
  - D. 53 years



## PAKISTAN STUDIES

1996, Dr. Syed Aliwaz Khan, Authorised First edition

- 56.
- A. Allahabad
  - B. Lahore
  - C. Dehli
  - D. Multan
57. Mughal Emperor Jahangir's tomb is situated in which of the following cities?
- A. Faisalabad
  - B. Lahore
  - C. Multan
  - D. Rawalpindi
58. All India Muslim League was established in which of the following cities?
- A. Dacca
  - B. Delhi
  - C. Lahore
  - D. Lucknow
59. Which language was declared as the national language of the country under 1973 Constitution of Pakistan?
- A. Bengali
  - B. English
  - C. Sindhi
  - D. Urdu
60. Under which constitutional amendment the name of NWFP was renamed as Khyber Pakhtunkhwa?
- A. 8<sup>th</sup>
  - B. 13<sup>th</sup>
  - C. 17<sup>th</sup>
  - D. 18<sup>th</sup>

51. Who accompanied Muhammad (SAW) during migration to Madina?

- A. Hazrat Ali (R.A)
- B. Hazrat Abu Bakar (R.A)
- C. Hazrat Umar (R.A)
- D. Hazrat Usman (R.A)

52. The foremost right of parents is to \_\_\_\_\_.

- A. give them proper time
- B. keep them smiling
- C. support them
- D. treat them kindly

53. Which of the following is the shortest surah of the Holy Quran?

- A. Surah Al-Alaq
- B. Surah Al-Kausar
- C. Surah Al-Nass
- D. Surah An-Nasr

54. The most important role in building a moral system is based on \_\_\_\_\_.

- A. individual
- B. legislation
- C. religion
- D. society

55. A man who NOT follows any religion is called \_\_\_\_\_.

- A. atheist
- B. Muslim
- C. sin
- D. transgressor

## ISLAMIAT/ETHICS

46. The feeling of remorse has always been connected with \_\_\_\_\_.

- A. conscience
- B. heart
- C. psyche
- D. soul

47. The Namaz Janaza is \_\_\_\_\_.

- A. Farz
- B. Farz-e-kifaya
- C. Sunnah
- D. Wajib

48. The second battle of Islam "Uhud" was fought is the name of a \_\_\_\_\_.

- A. hill
- B. lake
- C. ocean
- D. sea

49. Zakat is the \_\_\_\_\_ fundamental pillar of Islam.

- A. 1<sup>st</sup>
- B. 2<sup>nd</sup>
- C. 3<sup>rd</sup>
- D. 4<sup>th</sup>

50. Numerically smaller number of people than the rest of population of the state, is known as \_\_\_\_\_.

- A. follower
- B. minority
- C. sect
- D. subordinate

Complete the sentences by choosing the best option, from the given lettered choices (A to D) below each.

9. Water \_\_\_\_\_ when I removed the lid of the saucepan.

- A. boil
- B. boiled
- C. boils
- D. was boiling

10. I'm at the station now and \_\_\_\_\_ for the train.

- A. am waiting
- B. wait
- C. waited
- D. waiting

11. Are you busy \_\_\_\_\_ the weekend?

- A. at
- B. during
- C. on
- D. over

12. Birds of a \_\_\_\_\_ flock together.

- A. area
- B. family
- C. feather
- D. tree

13. Had Saeeda learnt a foreign language she \_\_\_\_\_ the job in the multinational company.

- A. could have got
- B. get
- C. got
- D. must get

4. At the party, Kim's dog tried to \_\_\_\_\_.

- A. convince him to have fun
- B. force him to leave early
- C. stop him from drinking too much wine
- D. wake Kim

5. The word 'frantically' means \_\_\_\_\_.

- A. easily
- B. noisily
- C. wildly
- D. worriedly

Choose the lettered word or phrase that is MOST NEARLY OPPOSITE in meaning to the word in capital letters.

6. If you show BRAVERY, you cannot be easily \_\_\_\_\_.

- A. defeated
- B. educated
- C. helped
- D. ignored

7. A person who is IMMUNE to something cannot be \_\_\_\_\_.

- A. equal
- B. frightened
- C. harmed
- D. killed

8. Be careful the floor is GREASY at places and not \_\_\_\_\_.

- A. broken
- B. dry
- C. even
- D. visible

... of the following countries is the FIFA World Cup champion in the year 2022?

- A. Argentina
- B. England
- C. France
- D. Morocco

73. Earth completes one revolution in \_\_\_\_\_.

- A. one day
- B. one year
- C. six months
- D. three years

74. Which of the following storage devices can store maximum amount of data?

- A. Compact disc
- B. Floppy disc
- C. Hard disc
- D. ROM

75. Skull protects our \_\_\_\_\_.

- A. brain
- B. eyes
- C. heart
- D. liver

## GENERAL KNOWLEDGE

67. tooth decay is caused by \_\_\_\_\_.

- A. calcium
- B. formalin
- C. salt
- D. sugar

68. How many meters are in 1 Kilometer?

- A. 1000
- B. 2000
- C. 4000
- D. 5000

69. Colombo is the capital city of \_\_\_\_\_.

- A. Bhutan
- B. Iran
- C. Nepal
- D. Sri Lanka

70. The new name of East Pakistan is \_\_\_\_\_.

- A. Bangladesh
- B. Bengal
- C. Bengaluru
- D. Bhutan

71. Who from the following was the first person on the moon?

- A. Elon Musk
- B. Neil Armstrong
- C. Yang
- D. Yuri Gagarin

72. "Doha" is the seaport of \_\_\_\_\_.

- A. China
- B. Iran
- C. Pakistan
- D. Qatar

**61. Cybercrime means crimes committed through \_\_\_\_\_**

- A. tv
- B. radio
- C. mobile and computer
- D. newspaper

**62. Allama Muhammad Iqbal was born in \_\_\_\_\_**

- A. Bombay
- B. Karachi
- C. Lahore
- D. Sialkot

**63. Pakistan's ideology is devised from \_\_\_\_\_**

- A. British occupation of Sub-continent
- B. Islam
- C. Land
- D. Nation

**64. Who contested in the presidential elections of 1965 against General Ayub Khan?**

- A. Khan Abdul Wali Khan
- B. Miss Fatima Jinnah
- C. Sheikh Mujeeb
- D. Syed Maududi

**65. In 1956 Constitution the designation of governor general was changed to \_\_\_\_\_.**

- A. Chief Minister
- B. Governor
- C. President
- D. Prime Minister

25. If the cost of 2 copies and 3 books is Rs. 1300 and cost of 5 copies and 1 book is 2600. Find the cost of a copy and a book.

- A. Rs. 100
- B. Rs. 500
- C. Rs. 600
- D. Rs. 50000

26. Abdullah gave Rs. 150 to Umar and Umar take Rs. 65 to Ahmed. After this all of them have same money. How much more Abdullah has than Ahmed?

- A. Rs. 30
- B. Rs. 35
- C. Rs. 85
- D. Rs. 215

27. Ahmed added to containers of paint containing 40 liters and 55 liters of paint. After using 49 liters in room and 34 liters in kitchen, how much paint is left?

- A. 7 liters
- B. 12 liters
- C. 21 liters
- D. 22 liters

28. If  $f(x) = 5a$  then it is called \_\_\_\_\_ function.

- A. constant
- B. identity
- C. one-one
- D. quadratic

29. The quadratic equation with roots 2, -3 is \_\_\_\_\_.

- A.  $x^2 - x + 6$
- B.  $x^2 + x + 6 = 0$
- C.  $x^2 + x - 6 = 0$
- D.  $x^2 - x - 6 = 0$

30. The mode is \_\_\_\_\_.

- A.
- B.
- C.
- D.

31. The mean is \_\_\_\_\_.

- A.
- B.
- C.
- D.

32. What is the value of  $22, 28, \dots$ ?

- A.
- B.
- C.
- D.

33. A coin is tossed 10 times. The probability of getting doublets is \_\_\_\_\_.

- A.
- B.
- C.
- D.

34. Factors of 12 are \_\_\_\_\_.

- A.
- B.
- C.
- D.



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## QUANTITATIVE REASONING

21. The value  $x$  in the linear equation  $\frac{3x}{2} - \frac{x-2}{3} = \frac{5}{2}$  is \_\_\_\_\_.

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

22. Pipe A can fill a tank in 30 minutes and pipe B can fill the tank in 50 minutes. In how much time the tank will be full if both pipes open together?

- A. 18 minutes
- B. 18 minutes 45 seconds
- C. 30 minutes
- D. 80 minutes

23. The sale price of a book is Rs. 630 with a profit of 20%. What is the cost price of book?

- A. Rs. 595
- B. Rs. 600
- C. Rs. 610
- D. Rs. 661

24. If  $f(x) = x^2 + 5kx + 70$  and  $f(-3) = 4$  then value of  $k$  is \_\_\_\_\_.

- A. -5
- B. -47/5
- C. 5
- D. 47/5

18. LIBRARY: BOOK::

- A. beach: sea
- B. bridge: river
- C. hospital: patient
- D. mosque: religion

19. BUNNY: RABBIT::

- A. fin: fish
- B. kennel: dog
- C. kitten: cat
- D. stripes: zebra

20. INTELLIGENT: DULL::

- A. attractive: repulsive
- B. better: best
- C. rich: wealthy
- D. sun: moon

Choose the lettered word or phrase that is **MOST NEARLY SIMILAR** in meaning to the word in capital letters.

14. If something is **VITAL** it is \_\_\_\_\_.

- A. comfortable
- B. expensive
- C. important
- D. ordinary

15. If you work **DILIGENTLY**, it means you work \_\_\_\_\_.

- A. carelessly
- B. badly
- C. happily
- D. hard

Four lettered pairs (A to D) follow a related pair of words given in the question. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair in capital letters.

16. GRAPES: BUNCH::

- A. colors: butterfly
- B. directors: board
- C. parents: children
- D. trees: vegetation

17. BLEND: MIX::

- A. bold: coward
- B. freeze: melt
- C. master : servant
- D. sink: drown

40. What is the supplement of  $55^\circ$ ?

- A.  $25^\circ$
- B.  $35^\circ$
- C.  $115^\circ$
- D.  $125^\circ$

41. Car A is moving with speed 40 km/h and car B is moving with a speed of 30 km/h in opposite directions. What is their relative speed?

- A. 10 km/h
- B. 35 km/h
- C. 50 km/h
- D. 70 km/h

42.  $38 - [36 - 2\{5 - 7 + 6\}] = \underline{\hspace{2cm}}$

- A. 10
- B. 14
- C. 24
- D. 86

43. Simplify  $\frac{\sqrt{54}}{\sqrt{3}\sqrt{2}}$ .

- A.  $\sqrt{3}$
- B. 3
- C.  $\sqrt{6}$
- D. 6

44. If  $A:B = 5:7$  and  $C:B = 7:11$  then  $A:B:C = \underline{\hspace{2cm}}$

- A. 49:45:77
- B. 35:55:66
- C. 55:77:49
- D. 49:55:77

35. The measure of the smallest angle of the heptagon, if its angles are in the ratio 2:3:5: 6:7:4:3. (Where sum of angles of heptagon is  $900^\circ$ )

- A.  $30^\circ$
- B.  $60^\circ$
- C.  $90^\circ$
- D.  $120^\circ$

36. If  $a + b = 10$  and  $a - b = 6$ , then the value of ab is \_\_\_\_\_.

- A. 16
- B. 32
- C. 64
- D. 128

37. What is the angle between the hand of a clock at 6:00?

- A.  $85^\circ$
- B.  $90^\circ$
- C.  $180^\circ$
- D.  $205^\circ$

38. The additive inverse of -3 is \_\_\_\_\_.

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

39. The value of m in the ratio  $3: m - 7 = m - 7: 12$  is \_\_\_\_\_.

- A. -1, -13
- B. -1, 13
- C. 1, -13
- D. 1, 13

40. What  
A  
B  
C  
41. Car /  
move  
What

42. 38

43. Sir

44. If

30. The mode in the data 2, 3, 4, 4, 5, 6, 8, 8, 6, 5, 2, 3, 8 is \_\_\_\_\_.

- A. 2
- B. 5
- C. 8
- D. 9

31. The mean value of the data 3, 6, 9, 12, 15, 18 is \_\_\_\_\_.

- A. 8.5
- B. 9
- C. 10.5
- D. 12

32. What is the next term in the sequence 1, 2, 4, 7, 11, 16, 22, 29, \_\_\_\_\_.

- A. 34
- B. 35
- C. 37
- D. 39

33. A coin is tossed twice. The probability of getting doublets is \_\_\_\_\_.

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

34. Factors of  $x^2 + 4x - 21 = 0$  are \_\_\_\_\_.

- A. -7, -3
- B. -7, 3
- C. -3, 7
- D. 3, 7

N TESTING COURSE  
EDUCATION COMMISSION  
NUMBER SLIP

10. The instruction \_\_\_\_\_ you to switch off electric equipment before you go out.

- A. tell
- B. tells
- C. to tell
- D. told

11. Yesterday I went to a party. Now I am going to tell you what I \_\_\_\_\_ when I arrived.

- A. saw
- B. see
- C. seeing
- D. seen

12. We were late and \_\_\_\_\_ managed to catch the train.

- A. fast
- B. hardly
- C. hurriedly
- D. scarcely

13. The goods were never delivered \_\_\_\_\_. the promise we had received.

- A. although
- B. because
- C. in spite of
- D. yet

### Questions 14-18

For many years afterwards, Lagos was always associated with electric lights and motorcars in Obi's mind. Even after he had at last visited the city and spent a few days there before flying to the United Kingdom his views did not change very much. Of course, he did not see much of Lagos then. His mind was, as it were, on higher things. He spent the few days with his 'country-man' Joseph Okeke, a clerk in the Survey Department. Obi and Joseph had been classmates at the Umuofia C. M. S Central School. But Joseph did not go on to a secondary school because he was too old, and his parents were poor. He had joined the

42.  $2x + 5y = -kx$ , if  $x = 2$  and  $y = -1$  then value of  $k$  is \_\_\_\_\_.

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

43. The range of the data 3, 5, 4, 6, 9, 17, 12, 15 is \_\_\_\_\_.

- A. 03
- B. 05
- C. 14
- D. 20

44. Write the statement in the form of equation, "subtract 8 from 4 times a number to get -6".

- A.  $-4x + 8 = 6$
- B.  $4x - 8 = 6$
- C.  $-4x + 8 = -6$
- D.  $4x - 6 = -8$

45. The range of  $f(x) = \frac{x^2 - 5}{x + \sqrt{5}}$  is \_\_\_\_\_.

- A.  $\{\sqrt{5}\}$
- B. real numbers -  $\{-2\sqrt{5}\}$
- C. real numbers -  $\{\sqrt{5}\}$
- D. real numbers -  $\{0\}$

## PHYSICS

A photon is particles that has no \_\_\_\_\_.

- A. charge
- B. energy
- C. momentum
- D. potential

A step-down transformer at the end of transmission line reduces the voltage from 2400 volt to 1200 volt. Find secondary number of turns, while it has 400 primary turns?

$$\frac{V_P}{V_S} = \frac{n_S}{n_P}$$

- A. 100
- B. 120
- C. 150
- D. 200

3. The process in which volume of the system remains constant is called \_\_\_\_\_.

- A. adiabatic
- B. isobaric
- C. isochoric
- D. isothermal

4. The gradient of velocity-time graph describes \_\_\_\_\_.

- A. acceleration
- B. displacement
- C. position
- D. retardation

5. A device which converts alternating current into pulsating current/voltage is known as \_\_\_\_\_.

- A. amplifier
- B. diode
- C. rectifier
- D. transistor



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ICAL-YELLOW



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E-MEDICAL-YELLOW-

Fill the appropriate

INC

- A
- B
- C
- D

E

Do not write or mark anything in this box.

26. A B C D E

27. A B C D E

51. A B C D

52. A B C D

51. The measurement of wavelength and intensities of electromagnetic radiation emitted or absorbed by atom is known as \_\_\_\_\_ spectra.

- A. atomic
- B. light
- C. molecular
- D. solar

52. A 70 Kg boy runs up hill through height of 3m in 2s, what will be average power?

- A. 850 Watt
- B. 930 Watt
- C. 1010 Watt
- D. 1030 Watt

53. The SI unit of magnetic flux is Weber. One Weber can also be expressed as \_\_\_\_\_.

- A. Joule/Ampere
- B. Joule/meter
- C. Newton/meter
- D. Tesla/m<sup>2</sup>

CHEMISTRY

One of the following has

- A. Ethane
- B. Ethene
- C. Ethyne
- D. Methane

which chemistry is the study accompanying a chemical

- A. concentration
- B. heat
- C. pressure
- D. temperature

Which one of the following has appearance?

- A. Pb<sub>2</sub>O
- B. Pb<sub>3</sub>O<sub>4</sub>
- C. PbO
- D. PbO<sub>2</sub>

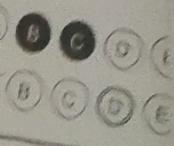
What is the percentage solution in which dm<sup>3</sup> of the solute

- A. 1%
- B. 1.3%
- C. 2.3%
- D. 4%

58. Which one of the following partially

- A.
- B.
- C.

INC



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AL-YELI

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42.  $2x + 5y = -kx$ , if  $x = 2$  and  $y = -1$  then value of  $k$  is \_\_\_\_\_.

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

43. The range of the data 3, 5, 4, 6, 9, 17, 12, 15 is \_\_\_\_\_.

- A. 03
- B. 05
- C. 14
- D. 20

44. Write the statement in the form of equation, "subtract 8 from 4 times a number to get -6".

- A.  $-4x + 8 = 6$
- B.  $4x - 8 = 6$
- C.  $-4x + 8 = -6$
- D.  $4x - 6 = -8$

45. The range of  $f(x) = \frac{x^2 - 5}{x + \sqrt{5}}$  is \_\_\_\_\_.

- A.  $\{\sqrt{5}\}$
- B. real numbers -  $\{-2\sqrt{5}\}$
- C. real numbers -  $\{\sqrt{5}\}$
- D. real numbers -  $\{0\}$

## PHYSICS

1. photon is particles that has no \_\_\_\_\_ and no m

- A. charge
- B. energy
- C. momentum
- D. potential

2. A step-down transformer at the end of transmission line reduces the voltage from 2400 volt to 1200 volt. Find secondary number of turns, while it has 400 primary turns?

$$\frac{V_P}{V_S} = \frac{n_S}{n_P}$$

- A. 100
- B. 120
- C. 150
- D. 200

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Fill the appropriate

INC

- A
- B
- C
- D

E