VTS EXAMINATION 2016-17 (FINAL)

Class : IX   **QUESTION PAPER**

Score : 400

Register No : ☐☐☐☐☐☐   **Time : 2 hrs**

General Instructions

1. Candidates are supplied with an OMR Answer Sheet.
2. Answer the questions in the OMR Sheet by shading the appropriate bubble.
3. Shade the bubbles with black ball point pen.
4. Each question carries four marks. One mark will be deducted for each wrong answer.
5. Use the space provided in the last page for rough work.

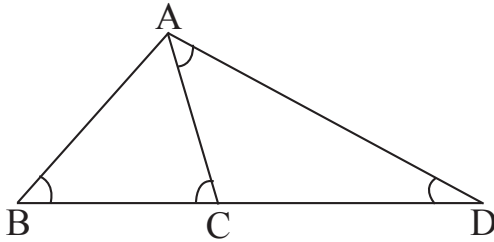**I. Read the following passage and answer the question**

A glass bottle that is sent to a land fill can take up to a million years to break down .By contrast, it takes as little as 30 days for a recycled glass bottle to leave your kitchen recycling bin and appear on the store shelf as a new glass container. Glass containers are 100 percent recyclable, which means that they can be recycled repeatedly again and again, with no loss of purity or quality in the glass. Recovered glass from glass recycling is the primary ingredient in all new glass containers. A typical glass container is made of as much as 70 percent recycled glass. According to industry estimates, 80 percent of all recycled glass eventually ends up as new glass containers. Every ton of glass that is recycled saves more than a ton of the raw materials needed to create new glass , including :1300 pounds of sand, 410 pounds of soda ash, and 380 pounds of lime stone. Glass containers have low rate of chemical interaction with their contents

1. It is important to send used glass bottles to a recycle plant because….

    A. They are not biodegradable   B. They can be reused

    C. They can be sold   D. They can be used for decoration

2. Glass is safe to use as it……

    A. Looks very clean   B. Has high resistance

    C. Has low chemical content   D. Is rated as good

3. The materials used for making glass is

    A. Soda ash,sand and lime stone   B. Sand and lime stone

    C. Soda and lime   D. None of these

4. Another word which means the same as 'component' is…..

A. Quality   B. Estimates

C. Landfill   D. Ingredient

5. She said, I "saw him". Turn to indirect speech

A. She said he saw her   B. She said he had seen her

C. She said that she had seen him   D. She asked if she saw him

6. Which among the following is in passive voice ?

A. Ali's helping her   B. Tara's helping her

C. Tara's being helped by Ali   D. Tara helped Ali

7. .... (you/see) the news ? You won't believe your eyes.

A. Have you saw   B. You see

C. Had you seen   D. Have you seen

8. It's warm inside.   .... your coat

A. Take off   B. Take out

C. Put off   D. Put on

9. Which of the following is correctly spelt ?

A. Hand kerchief   B. Hanker chief

C. Hancerchief   D. Hand kercheif

10. Which of the following is the synonym of 'avow'

A. Suppress   B. Deny

C. Confess   D. Disavow

11. Inside a triangular garden there is a flower bed in the form of a similar triangle. Around the flower bed runs a uniform path of such a width that the sides of the garden are double of the corresponding sides of the flower bed. The areas of the path and the flower bed are in the ratio

A. 1:1   B. 1:2

C. 1:3   D. 3:1

12. The measure of an angle which is 4 times its supplement is ......

    A. 36° B. 144°

    C. 180° D. 150°

13. In the figure $\angle B = \angle C = 65^{o}$ and $\angle D = 30^{o}$, then

    A. $BC < CA < CD$ B. $BC > CA > CD$

    C. $BC < CA, CA > CD$ D. $BC > CA, CA < CD$

14. If $\sqrt{1+\dfrac{25}{144}} = 1+\dfrac{x}{12}$, then x is

    A. 11   B. 2

    C. $\frac{1}{2}$ D. 1

15. If $p + q = 7$ and $\sqrt{q^{2} - 9} = 4$, find p.

    A. 1   B. 2

    C. 3   D. 4

16. 15 years hence a man will be just 4 times as old as he was 15 years ago. His present age is

    A. 10 years   B. 15 years

    C. 20 years   D. 25 years

17. If p persons working p hours a day for each of p days produced p units of work, then the units of work produced by q persons working q hours a day for each of q days is ....

    A. $\dfrac{q^{3}}{p^{2}}$ B. $\dfrac{q^{2}}{p^{3}}$

    C. $\dfrac{p^{2}}{q^{3}}$ D. $\dfrac{p^{3}}{q^{2}}$

18. The value of $\sqrt{1.96+\sqrt{23.04}}$ is

    A. 2.6   B. 3.6

    C. 4.9   D. 6.4

19. If $\sqrt{5} = 2.2361$ and $\sqrt{3} = 1.7321$, then $\frac{1}{\sqrt{5}-\sqrt{3}}$ is equal to

    A. 1.98   B. 1.984

    C. 1.9841   D. 2

20. If n is a whole number greater than 1, then $n^2(n^2-1)$ is always divisible by..............

    A. 12   B. 12 and 24

    C. 24   D. 36

21. The equation corresponding to Universal Law of Gravitation

    A. $F = g\frac{Mm}{d^2}$ B. $F = G\frac{Mm}{d^2}$

    C. $G = F\frac{Mm}{d^2}$ D. $g = \frac{FMm}{d^2}$

22. The weight of object is .... at poles comparing with that of equator.

    A. Less   B. Same

    C. More   D. Zero

23. $m_1 = 60$ kg, $u_1 = {}^+5$ m/s and $m_2 = 55$ kg; $u_2 = {}^-6$ m/s. Find the total momentum of the system.

    A. $^-30$ kg m/s   B. $^-40$ Km m/s

    C. 0.3 Kg m/s   D. 0.4 Kg ms

24. An object moves through a circular path and comes back to the starting point. Which of the following statement is true ?

    A. Distance travelled by the object is zero   B. Displacement of the object is zero

    C. Distance = displacement   D. Displacement = $2\pi\,{}^r\!/_t$

25. Which of the following is not an element ?

    A. Graphite   B. Germanium

    C. Silica   D. Silicon

26. Which of the following method is used in diagnostic labs for blood and urine test ?

    A. Filtration   B. Centrifugation

    C. Sublimation   D. Distillation

27. In which of the following conditions, the distance between the molecules of hydrogen gas would increase ?

i) Increasing pressure on hydrogen contained in a closed container

ii) Some hydrogen gas leaking out of the container

iii) Increasing the volume of the container of hydrogen gas

iv) Adding more hydrogen gas to the container without increasing the volume of the container

A. (i) and (iii)   B. (i) and (iv)

C. (ii) and (iii)   D. (ii) and (iv)

28. A person met with an accident in which two long bones of hands were dislocated. Which among the following may be the possible reason ?

A. Tendon break   B. Break of skeletal muscle

C. Ligament break   D. None

29. The living component of xylem is

A. Tracheids   B. Vessels

C. Xylem fibres   D. Xylem parenchyma

30. White blood cell helps in ……………….

A. Clotting of blood   B. Transport of oxygen

C. Killing harmful germs   D. All of these

31. From Which language the word 'Feudalism' derived ?

A. Spanish   B. Latin

C. Arabic   D. French

32. Two statements are given below. One labelled as Assertion (A) and the other labelled as Reason (R)

    Assertion (A) : To regulate the daily affairs of the market an official called 'Shahna' was appointed during the period of Delhi Sultanate.

    Reason (R) : Severe punishment was imposed, if excess prices were charged or if cheating in weights and measures was done.

    In the above two statements, which one of the following is correct ?

    A. Both 'A' and 'R' are correct and 'R' is the explanation of 'A'

    B. Both 'A' and 'R. are not correct

    C. 'A. is true and 'R' is false

    D. 'R' is true and 'A' is false

33. Which of the following was not associated with the Five Year Plan introduced by Russia ?

    A. Industrial production increased

    B. Centralised planning led to economic growth

    C. Industrial products were distributed among the factory workers in lieu of wages.

    D. Enterprises under private ownership were taken over by the state.

34. Consider the following statements:

    i. The cost of construction and maintenance of water transport route is less.

    ii. Air pollution and Noise pollution are less in water transport.

    Which of the above statements are correct ?

    A. i only   B. ii only

    C. Both i and ii   D. Neither i or ii

35. Which of the following trees are found in Tropical rain forests ?

    A. Mahagony   B. Teak

    C. Sal   D. Peepal

36. Which one of the following National Parks is located in Uttarakhand ?

   A. Silent valley National Park   B. Jim Corbett National Park

   C. Sunderban National Park   D. Kaziranga National Park

37. What is the purpose of the Swarnajayanti Rozgar-Yojana passed by the central government ?

   A. To guarantee 100 days of employment

   B. To encourage self employment

   C. To ensure nutritious food through Schools

   D. To implement Programmes through Anganawadies

38. Which of the following belonged to the tertiary sector ?

   A. Health care   B. Forestry

   C. Car manufacturing   D. Fishing

39. Which of the following is incorrect with regard to the Indian constitution ?

   A. The Constituent Assembly approved the Indian Constitution on 26th November, 1949.

   B. 292 Articles and 6 Schedules have included in Indian Constitution.

   C. Dr. Rajendra Prasad was the chairman of the Constituent Assembly

   D. The preamble retlects the basic ideas and values of our constitution.

40. What is known as the " Council of States" ?

   A. Lok Sabha   B. Rajya Sabha

   C. State Legislative Assembly   D. State Legislative Council

41. The project started by central government to get bank account for everybody

   A. Sampoorna Grameen Rozgar Yojana   B. Swach Bharath

   C. Jan-Dhan Yojana   D. None

42. The first aircraft which flew with solar energy in March 2015

   A. Solar Impulse 2   B. Solar Impulse 5

   C. Solar Impulse – 9   D. Soalr Impulse – 10

43. Name the Malayalee Anglo Indian representative nominated to 16th Lok Sabha

   A. Ludi Louis   B. Manohar Parrikar

   C. Prof. Richard Hay   D. None of these

44. Name the Chief Minister of Odisha ?

   A. Naveen Patnaik   B. Nitish Kumar

   C. Akhilesh Yadav   D. K. Siddaramaiah

45. Who administers the oath of the 'Governor of a state' ?

   A. President   B. Prime Minister

   C. Chief Justice of Supreme Court   D. Chief justice of High court

46. Give the expansion of UNIFEM ?

   A. United Nations Development Federation for Women

   B. United Nations Development Fund for Women

   C. United Nations Development Fund for Workers

   D. United Nations Department Fund for Women

47. What does 'NITI' Ayog stand for ?

   A. Navi Information Technology of India

   B. National Industrial Technology in India

   C. National Institution for Technology in Idia

   D. National Institution for Transforming India

48. Photo copying machine was invented by

   A. Gutenberg   B. Chester F Carlson

   C. Symur Cray   D. None of these

49. The principal author of the 'Declaration of Independence' and the third president of America

   A. George Washington   B. Thomas Jefferson

   C. Adams John   D. James Madison

50. Who gave the revolutionary message – " No Caste, No religion, No God for Man " ?

   A. Dr. Palpu   B. Kumaranasan

   C. Sree Narayana Guru   D. Sahodaran Ayyappan

51. Who is populary known as the Socrates of Maharashtra ?

   A. Bal Gangadhar Tilak   B. Rajagopachalari

   C. Bhagat Singh   D. Gopal Krishna Gokhale

52. The heroine of Quit India Movement is ……………… ?

   A. Annie Besant   B. Aruna Asaf Ali

   C. Sarojini Naidu   D. Indira Gandhi

53. As Turkey is related to Ankara, Belgium is related to ………………

   A. Bishkek   B. Bern

   C. Berlin   D. Brussels

54. The official residence of the president of France

   A. White House   B. Malacanang Palace

   C. Elysee Palace   D. Escorial

55. Konark Temple of Odisha was built by

   A. Narasimha II   B. Krishnadevaraya

   C. Chandraguptha I   D. Narasimha I

56. Who is the father of sports education ?

   A. Ashley Cooper   B. H.C. Buck

   C. Guru Dutt Sondhi   D. None of these

57. The first Indian shooter who won an individual gold medal in Olympics games is ……………

   A. Abhinav Bindra   B. Suseel Kumar

   C. Nijendra Singh   D. Rajyavardhan Singh Rathore

58. The world Computers Security Day is observed on

    A. November 30   B. November 13

    C. August 30   D. December 13

59. Which among the following is the first web browser ?

    A. Chrome   B. Opera

    C. Epic   D. Nexus

60. Name the largest river island of Kerala

    A. Kuruva island   B. Masuli

    C. Nicobar island   D. Andaman island

61. Which of the following countries has world's oldest National Flag ?

    A. England   B. Denmark

    C. France   D. America

62. Write the year in which Suez Canal was nationalized

    A. 1656   B. 1756

    C. 1857   D. 1956

63. The military operation conducted by America to liberate Iraq from Kuwait

    A. Operation Desert Fox   B. Operation Desert Storm

    C. Operation Blue Star   D. Operation Vijay

64. Article 32 deals with

    A. Right against exploitation   B. Right to freedom of religion

    C. Cultural and educational right D. Right to constitutional remedies

65. 'Interpreter of Melodies' is the book written by

    A. Shashi Tharoor   B. Salman Rushdie

    C. Jhumpa Lahiri   D. Arundhati Roy

66. The famous book 'Poverty and Famines' is written by

    A. Amartya Sen   B. Amit Chaudhuri

    C. Manjula Padmanabhan   D. None of these

67. Which among the following is the headquarters of Arab League ?

    A. Cairo   B. Tehran

    C. UAE   D. Jakarta

68. The great person who is known as Columbus in Space

    A. Tenzing Norgay   B. Edmund Hillary

    C. Neel Amstrong   D. Yuri Gagarin

69. The British mathematician who won 2016 Abel Prize for solving a centuries old hypothesis,
    Fermat's Last Theorem

    A. Yuen woo-ping   B. Sir Andrew Wiles

    C. Keith Emerson   D. Jim Harrison

70. Land of thousands Lake is

    A. Switzerland   B. Egypt

    C. Belgium   D. Finland

71. 'Captain' is related to 'Soldier' in the same way as 'Leader' is related to

    A. Chair   B. Follower

    C. Party   D. Minister

72. Six friends A,B,C,D,E and F are sitting in a row facing towards North .C is sitting between A
    and E. D is not at the end .B is sitting at the immediate right of E,F is not at the Right end ,but
    D is sitting at 3rd Left of E.Which of the following is sitting to the left of D ?

    A. A   B. F

    C. E   D. C

73. 36,28,24,22, ?

    A. 18   B. 19

    C. 21   D. 22

74. If the digit 12 of a clock is pointing towards East, then in wich direction will digit 9 point ?

    A. South   B. West

    C. North   D. North – East

Direction (Q:Nos 75-79): In each of the questions below are given two statements followed by two conclusions numbered I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and decide which of the given conclusion(s) logicaly follow(s) from the two given statements disregarding commonly known facts.

Give answers

A. If only conclusion I follows   B. If only conclusion II follows

C. If either I or II follows   D. If both I and II follow

75. Statements: Some cities are towns

                   Some villages are cities

    Conclusions I At least some villages are towns

               II No village is a town

76. Statements: Some pins are clips

                   Some clips are pens

    Conclusions I Some pins are pens

               II Some pins are not pens

77. Statements: All Ds are As

                   All As are Cs

    Conclusion:I   All Ds are Cs

               II Some Ds are As

78. Statements: Some trees are plants

                    Are bushes are plants

    Conclusion I   At least some trees are bushes

              II   Some trees are definitely not bushes

79. Statements: All bottles are glasses

                    No cup is glass

    Conclusions I   No bottle is a cup

               II   At least some glasses are bottles

80. Two days before yesterday was Friday. Then what day of the week will be day after tomorrow ?

    A. Monday   B. Sunday

    C. Saturday   D. Wednesday

81. The day on 18-09-1977 was Sunday . A couple was married on this date .How many marriage anniversaries would fall on Sunday in the next 15 years ?

    A. 1   B. 2

    C. 5   D. 9

Direction (Q: nos 82-86): Read the following information carefully and answer the question given below.

At an electronic data processing unit, five out of the eight programm sets P,Q,R,S,T,U,V and W are to be operated daily. On anyone day, except for first day of the month ,only three of the programm sets must be the ones that were operated on the previous day. The programm operation must also satisfiy the following conditions.

(a) If programm P is to be operated on a day ,V cannot be operated on that day .

(b) If Q is to be operated on a day, T must be one of the programms to be operated after Q.

(c) If R is to be operated on a day ,V must be one of the programms to be operated after R .

(d)The last programm to be operated on any day must be either S or U .

82. Which of the following is true of any day's valid programm set operation ?

    A. P cannot be operated at third place   B. Q cannot be operated at third place

    C. T cannot be operated at the third place   D. R cannot be operated at fourth place

83. If the programm sets R and W are to be operated on first day, which of the following could be the other programms on that day ?

    A. P,T,U   B. Q,S,V

    C. Q,T,V   D. V,S,U

84. If the programm sets operated on a day are P,Q,W,T and U, then each of the following could be the next days programms except

    A. Q,R,V,T,U   B. Q,T,V,W,S

    C. W,T,U,V,S   D. W,T,S,P,U

85. Which of the following could be the set of programm to be operated on the first day of a month ?

    A. P,R,V,S,U   B. Q,S,R,V,U

    C. T,U,R,V,S   D. U,Q,S,T,W

86. If R is operated at third place in a sequence,which of the following cannot be second programm in that sequence ?

    A. Q   B. S

    C. T   D. U

87. In a certain code language 'TALK' is written as '21213121' .Then how will 'PAINA' be coded in that language ?

    A. 17212152   B. 17221251

    C. 17221125   D. 17221152

88. In a certain code language 'GRADUATE' is written as '2092623626722'. Then how will 'ARIHANT' be written in that language ?

    A. 269181926137   B. 269181926173

    C. 269811926137   D. 269181962137

89. In a certain code language 'PERFECT' is written as '116'. Then how will 'COMPACT' be written in that code ?

    A. 85   B. 111

    C. 98   D. 118

90. In a certain code language 'TRUE' is written as '8316'. Then how will 'TAP' be written in that code ?

    A. 3120   B. 2002

    C. 2015   D. 1122

91. In a certain code language 'SON' is written as '81213', 'LIFE' is writen as '15182122'. Then how will 'NEVER' be written in that language ?

    A. 13225229   B. 22135229

    C. 13225292   D. 13222529

92. If A=1 and ANT=35, then PAT= ?

    A. 32   B. 47

    C. 25   D. 37

Direction (Q:Nos 93-96): Each of the questions consists of five figures marked 1,2,3,4,5 named as problem figures and is followed by four answer figures marked A,B,C and D. Select a figure from the answer figures which will continue the series as established by the five problem figures.

93. Problem Figures / Answer Figures

94. Problem Figures / Answer Figures

95. Problem Figures / Answer Figures

Problem Figures

96.

Answer Figures

A   B   C   D

Direction (Q:Nos 97-100): Find the missing character in each of the following questions.

97.

13	54	41
7	45	38
27	144	?

A. 107   B. 117

C. 128   D. 180

98.

10	8	8
15	12	27
16	12	?

A. 60   B. 64

C. 67   D. 92

99.

6	5	30
8	7	56
9	3	?

A. 21   B. 27

C. 28   D. 38

100.

6	8	24
12	16	96
18	20	?

A. 100   B. 150

C. 160   D. 180

Space for rough works