Vidyarthi Vigyan Manthan (VVM) – 2016

Prathama Junior Group (Class VI, VII & VIII)

Model Question Paper

(for practice purposes only)

Time: 60 Min   **Total number of questions: 100**   **Max Marks: 100**

General Instructions:

⇒ All questions are compulsory.
⇒ Use of calculator is not permitted.
⇒ There is no negative marking for any wrong answer.
⇒ You shall not go the questions page until asked to do so.
⇒ For any doubt, consult only the invigilators.
⇒ Mark answers on OMR sheet provided separately.
⇒ Follow the instructions provided on OMR sheet.
⇒ Hand over question paper and the OMR sheet to the invigilators before leaving the hall.
⇒ You shall not be allowed to leave the hall unless and until so announced by the invigilator.
⇒ Subject wise proportion may vary.

Fill all the details before opening the Question Paper Booklet (IN BLOCK LETTERS)

Name of Student [   ]   Roll No. [   ]

Exam Centre Code [   ]   OMR Sheet Code [   ]

Signature of student [   ]

01. Circular motion is

(a) A periodic motion
(b) A linear motion
(c) An oscillatory motion
(d) A non-accelerated motion

02. A switch is used in an electrical circuit to

(a) Make and break the circuit
(b) Control the current in the circuit
(c) Cool down the circuit
(d) To heat the circuit

03. We can see our image on a polished glossy surface because of

(a) Refraction of light
(b) Reflection of light
(c) Absorption of light
(d) Radiation of light

04. Time period of a simple pendulum is 1.5 second. How much time will it take to complete 9 oscillations?

(a) 12 second
(b) 9 second
(c) 13.5 second
(d) 1.5 second

05. A car travels for 15 minutes with speed of 40 kmph and then for 10 minutes with 60 kmph. Total distance travelled by the car is

(a) 20 km
(b) 100 km
(c) 25 km
(d) 15 km

06. An Image that can be observed on a screen is

(a) Virtual image
(b) Bright image
(c) Dark image
(d) Real image

07. A cell converts

(a) Electrical energy to chemical energy
(b) Chemical energy to electrical energy
(c) Magnetic energy to electrical energy
(d) Electrical energy to mechanical energy

08. To an astronaut, the outer space appears

(a) Dark blue
(b) White
(c) Black
(d) Dark red

09. It is difficult to walk on ice because

(a) Friction is high.
(b) Friction is low.
(c) Pressure is high.
(d) Pressure is low.

10. Sound of which of the following frequencies is *inaudible* to human?

(a) 30 Hz
(b) 1500 Hz
(c) 15000 Hz
(d) 30000 Hz

11. Acid rain is caused by

(a) Oxygen
(b) sulphur dioxide
(c) phosphorus pentaoxide
(d) silicon di oxide

12. The density of water is maximum at

(a) 0°C
(b) 2°C
(c) 4°C
(d) 1°C

13. Which of the following is an alloy?

(a) silver
(b) gold
(c) steel
(d) iron

14. A saturated solution can become unsaturated by

(a) Cooling
(b) Heating
(c) Adding more solute
(d) Cannot be made unsaturated

15. Aquatic animals like fish excrete their wastes in gaseous form as

(a) Oxygen
(b) Hydrogen
(c) Ammonia
(d) Nitrogen

16. Which of the following is an acid-base indicator?

(a) Vinegar
(b) Lime water
(c) Turmeric
(d) Baking soda

17. Bacteria in your mouth produce acids, so you should use toothpaste that is

(a) Acidic
(b) saline
(c) Basic
(d) Neutral

18. Potable water is the water which is

(a) Obtained from a river.
(b) Obtained from a lake.
(c) Safe and fit for drinking.
(d) used only for washing clothes

19. Tetraethyl lead is used as

(a) pain killer
(b) fire extinguisher
(c) mosquito repellent
(d) petrol additive

20. The absorption of ink by a tissue paper involves

(a) viscosity
(b) capillary action
(c) diffusion
(d) osmosis

21. A vendor bought toffee at 6 for a rupee. How many for a rupee must he sell to gain 20% profit?

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

22. Two numbers are in the ratio 15:11 & their HCF is 13. Find the numbers.

(a) 194,140
(b) 190,144
(c) 195,143
(d) 192,142

23. Abscissa of a point is positive in….

    (a) I quadrant only   (c) I and IV quadrant
    (b) I and III quadrant   (d) In all quadrants

24. At what rate percent per annum will the simple interest on a sum of money be $\frac{2}{5}$ th of the amount in 10 years?

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

25. Perpendicular sides of a right angled triangle are 12 and 16 cm. What is the area of a semicircle drawn with the hypotenuse as the diameter?

    (a) 314   (c) 616
    (b) 154   (d) 100

26. 800 m long train running with speed 75 kmph crosses a tunnel in 1 min. What is the length of the tunnel?

    (a) 260 m   (c) 480 m
    (b) 450 m   (d) 500 m

27. The least number of complete years in which a sum of money put out at 20% compound Interest, will be more than double is ….

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

28. Sum of second even, fourth odd and first perfect square after 100 is …..

    (a) 300   (c) 336
    (b) 332   (d) 338

29. Average of prime numbers between 100 and 120 is ….

    (a) 111   (c) 108.6
    (b) 109   (d) 106.6

30. There are 50 balls in a container. Their average weight is 2 N. If the weight of the container be included, the average increases by 0.05 N. So the weight of the container is ….

    (a) 2.2 N   (c) 3 N
    (b) 2.3 N   (d) 4.55 N

31. _____ was one of India's major export industries till British dismantled and formally banned it.

    (a) Textiles   (c) Shipbuilding
    (b) Spices   (d) Ayurveda

32. Which of the following is NOT an important objective of India's nuclear energy programme?

    (a) Power Generation   (c) Medicine
    (b) Agriculture   (d) Nuclear Missile

33. India's first satellite built by ISRO in 1975 was _____

    (a) Aryabhatta   (c) INSAT
    (b) Intelsat   (d) Edusat

34. India is the only third world country to develop its own _____ satellite.

    (a) Weather monitoring   (c) Communication
    (b) Remote sensing   (d) Spying

35. In last 10 years, which industry in India has grown at an average annual rate of 30%?

    (a) Automobile   (c) I T
    (b) e-Commerce   (d) Jewellery

36. Dakshin Gangotri is in _____

    (a) Antarctica   (c) Uttarakhand
    (b) Himalayas   (d) Indian Ocean

37. This Indian origin scientist proved in 1897 the long suspected link between mosquitoes and malaria.

    (a) J C Bose   (c) Alphonse Laveran
    (b) Varahmihir   (d) Ronald Ross

38. Indian scientist to receive the Nobel Prize for study of "Scattering Effect of Sunlight" was

    (a) S. Chandrasekhar   (c) Har Govind Khurana
    (b) M S Swaminathan   (d) C V Raman

39. Dr. Har Govind Khurana was awarded Nobel Prize for

    (a) Studying Scattering Effect of Light   (c) Study of Stellar Evolution
    (b) Interpretation of Genetic Code   (d) Physics

40. Cracking the complex functions and structures of Ribosome fetched an Indian scientist a Nobel Prize. Who was he?

    (a) C V Raman   (c) A P J Abdul Kalam
    (b) S Chandrasekhar   (d) Venkataraman Ramakrishan

41. Name the Indian regarded as the Father of Surgery.

    (a) Charak   (c) Dhanwantari
    (b) Sushrut   (d) Bhaskara-II

42. Which ancient Indian scholar calculated most accurately, i.e. with a difference of only 3.5 minutes, the time required for the Earth to orbit the Sun?

   (a) Brahmagupta
   (b) Bhaskaracharya
   (c) Aryabhatta
   (d) Kalidasa

43. Famous scientists, Satyendra Nath Bose and Meghnad Saha were students of this scientist.

   (a) J C Bose
   (b) P C Ray
   (c) Birbal Sahni
   (d) P C Mahalanobis

44. Which of these scientists was the first to prove that even plants have feelings?

   (a) Birbal Sahni
   (b) Har Govind Khurana
   (c) P C Mahalanobis
   (d) J C Bose

45. In 1892, who founded Bengal Chemicals and Pharmaceutical Works, India's first pharmaceutical company?

   (a) J C Bose
   (b) P C Ray
   (c) Satyendra N Bose
   (d) Meghnad Saha

46. For his studies on the technique of casting coins in ancient India, the Numismatic Society of India awarded the Nelson Wright Medal to which of these scientists?

   (a) Meghnad Saha
   (b) Birbal Sahni
   (c) Homi Bhabha
   (d) Anil Kakodkar

47. He was an Indian born Nobel Prize winner who did pioneering work on proteins and nucleic acids. His father was a 'Patwari', an agriculture taxation clerk in British India. Name him.

   (a) Anil Kakodkar
   (b) Vijay Bhatkar
   (c) Har Govind Khurana
   (d) P C Ray

48. Which of the following scientists is credited to have founded the prestigious Institute of Nuclear Physics in 1950?

   (a) Meghnad Saha
   (b) Satyendra N Bose
   (c) Homi Bhabha
   (d) P C Ray

49. _____ came into news in connection with the discovery of what is popularly called the 'God Particle'.

   (a) A P J Abdul Kalam
   (b) Satyendra N Bose
   (c) Homi Bhabha
   (d) Anil Kakodkar

50. Dr. Salim Ali, the 'Birdman of India' was a/an _____

   (a) Ornithologist
   (b) Palaeontologist
   (c) Archaeologist
   (d) Entomologist

51. Who invented the technique for test tube fertilisation of an angiosperm?

    (a) Dr Salim Ali
    (b) Panchanan Maheshwari
    (c) B P Pal
    (d) Vijay Bhatkar

52. Who founded the Indian Society of Genetics and Plant Breeding?

    (a) Panchanan Maheshwari
    (b) Salim Ali
    (c) B P Pal
    (d) Homi Bhabha

53. Who of the following is known as the main architect of Indian Atomic Energy Programme?

    (a) Vikram Sarabhai
    (b) J C Bose
    (c) Homi J Bhabha
    (d) B P Pal

54. Who of these is fondly remembered as the Father of Indian Space Programme?

    (a) Homi J Bhabha
    (b) Vikram Sarabhai
    (c) Varghese Kurien
    (d) A P J Abdul Kalam

55. India's first rocket launching station was set up at

    (a) Balasore
    (b) Sri Harikota
    (c) Trivandrum
    (d) Thumba

56. Varghese Kurien, fondly remembered as 'The Milkman of India', was a

    (a) Mechanical Engineer
    (b) Zoologist
    (c) an instrumentation Engineer
    (d) Biologist

57. Who engineered the 'White Revolution of India'?

    (a) M S Swaminathan
    (b) Vikram Sarabhai
    (c) Varghese Kurien
    (d) Vainu Bappu

58. This famous geneticist is known as the man behind India's 'Green Revolution'.

    (a) M S Swaminathan
    (b) A P J Abdul Kalam
    (c) Vainu Bappu
    (d) V Kurien

59. The 'Missile Man of India', Dr A P J Abdul Kalam, specialized in

    (a) Aerospace Engineering
    (b) Aeronautical Engineering
    (c) Astrophysics
    (d) Nuclear Science

60. The famous Iron Pillar in Delhi has withstood corrosion for the last _____ years.

    (a) 1500
    (b) 1600
    (c) 1650
    (d) 1800

61. How many elder sister/s APJ Abdul Kalam had?

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

62. At Pamban Island Dr Kalam's ancestral house was in the vicinity of which temple?

   (a) Ramanathaswamy   (c) Badrinath
   (b) Venkaseshwar   (d) Rameshwar

63. What relation Marakyar had with Dr Kalam?

   (a) Brother   (c) Friend
   (b) Uncle   (d) Brother in law

64. Dr Kalam visited whose house on 28 May 2005 during his visit to Switzerland.

   (a) Newton   (c) John Canady
   (b) Einstein   (d) Geroge Bush

65. What was the name of Kalam's the great grand father

   (a) Avul   (c) Pakir
   (b) Jainulabdeen   (d) Abdul

66. Name publisher of the book "*Wings of Fire*" of APJ Abdul Kalam with Arun Tiwari

   (a) University Press   (c) Oriental
   (b) Tata McGraw Hill   (d) Pearson

67. In 1961 Dr Kalam saw a film T*he Absent-Minded Professor. Who was the actor of this film?*

   (a) Wd Eynn   (c) Mark Spenser
   (b) Ed Wynn   (d) Einstien

68. Who told to Dr Kalam that thrift and self-control are sought because they create character?

   (a) His father   (c) His Teacher
   (b) His mother   (d) His friend

69. The date of birth of Dr Kalam is 15th day of October 1931. What was the day on this date?

   (a) Monday   (c) Thursday
   (b) Tuesday   (d) Sunday

70. The southernmost tip of the Pamban Island is

   (a) Dhanushkodi   (c) Puducherry
   (b) Perumdur   (d) Sriharikota

71. "You can't cross the sea merely by standing and staring at the water", who said this

    (a) Kalam   (c) Gandhi
    (b) Tagore   (d) Nehru

72. To whom Dr Kalam gives credit for developing a fascination in him for the flying.

    (a) Siva Subramania Iyer   (c) Mother
    (b) Father   (d) Brother

73. How much APJ could earn by selling tamarind seeds during crisis days

    (a) One anna   (c) Ten Rupees
    (b) One Rupee   (d) Fifty Paise

74. Who is the author of Dr Kalam's favourite poem "Where the Mind is without fear and head is held high..."

    (a) Dinkar   (c) Bachchan
    (b) Tagore   (d) Mahadevi Verma

75. Which year Dr Kalam's book "you are born to blossom" was published.

    (a) 2008   (c) 2010
    (b) 2006   (d) 2007

76. STR Manickam, a revolutionary nationalist was popular because of his owning a

    (a) Huge library   (c) Dairy farm
    (b) Swimming pool   (d) House

77. Who is well known for policy of 'iron fist in a velvet glove'

    (a) Tagore   (c) Sardar Patel
    (b) Dr Kalam   (d) Bhagwan Budha

78. Where is Sethupaty Raja Palace situated?

    (a) Ramnad town   (c) Rameswaram
    (b) Chennai   (d) Dhankavadi

79. Iyadurai Solomon was Dr Kalam's teacher at

    (a) Shwartz   (c) Dhankavadi
    (b) Rameswaram   (d) Chennai

80. Who advised Dr Kalam that, "Keep reading books, but you should learn to think for yourself."

    (a) Tagore   (c) STR Manickam
    (b) S Srinivasan   (d) Sarabhai

81. Which of the following are the factors of $(49p^2+154p+121)$?

    (a) (p-1)(49p+121) (c) (7p+11)(7p-11)
    (b) (7p+11)(7p+11) (d) (p+1)(49p+121)

82. Rohit ran 20% faster than Sunil. If Rohit's speed was 30 km/hr, what was Sunil's speed?

    (a) 24 km/hr (c) 36 km/hr
    (b) 25 km/hr (d) 20 km/hr

83. A shopkeeper sells chocolates for Rs.6.50 and a toffee for Rs.2.00 each. If he earned total Rs.836.50 by selling 209 chocolates and toffees, how many chocolates did he sell?

    (a) 87 (c) 96
    (b) 116 (d) 93

84. If a clock strikes 12 in 22 seconds, in how many seconds will it strike 6?

    (a) 12 (c) 14
    (b) 11 (d) 10

85. Two numbers are in ratio 2:7. If their LCM is 224, find the greater number.

    (a) 32 (c) 112
    (b) 56 (d) 224

86. A girl is now 'x' years old and her father is '5x' years old. How old will the father be when the girl will be '3x' years old?

    (a) 15x years (c) 45 years
    (b) 7x years (d) $5x^2$ years

87. Find two positive numbers whose sum is 190 and the sum of their cubes is the least.

    (a) (100, 90) (c) (155, 35)
    (b) (95, 95) (d) (60,130)

88. Choose the simple form of

    $\sqrt{2}\sqrt[3]{4}\sqrt[4]{4}$

    (a) $2^{5/4}$ (c) $2^{3/8}$
    (b) $2^{5/6}$ (d) $2^{5/8}$

89. Out of 200 bags of apples, a wholesaler sells first 150 bags at a rate of Rs P per bag. For remaining bags he offers a discount of 20% per bag. The total amount collected from this sale is….

    (a) Rs.190 (c) Rs.150 P +40
    (b) Rs.150 P (d) Rs.190 P

90. A 30 litre mixture of milk and water has milk and water in ratio of 7:3. How much water should be added to the mixture to make the ratio 3:7?

(a) 10 litre
(b) 20 litre
(c) 30 litre
(d) 40 litre

91. Which one out of following contains starch?

(a) meat
(b) egg
(c) sugar
(d) rice

92. What is jute?

(a) a kind of fibre from plant
(b) a name used for art of making cloth
(c) animal skin
(d) a nutritious meal

93. Which of the following statements is correct?

(a) herbs are shorter than trees but taller than shrubs
(b) trees are shortest and shrubs the tallest
(c) shrubs are taller than the herbs but shorter than the trees
(d) there is no difference in the height of plants

94. Which of the following statements is correct?

(a) the hip joint is immovable but upper jaw is freely movable
(b) the hip joint is ball and socket but upper jaw is attached to skull by hinge joint
(c) hip joint is movable but not the upper jaw
(d) hip is hinge joint but upper jaw forms ball and socket joint

95. Lichen is association between ___ and _____.

(a) fungi and protozoan
(b) algae and plants
(c) fungi and algae
(d) algae and mushrooms

96. Bile juice is stored in ____.

(a) liver
(b) pancreas
(c) gall bladder
(d) stomach

97. Silk is obtained from __.

(a) silk worm's body
(b) silkworm cocoons
(c) shells of oysters
(d) eggs of silk moth

98. The blood loss can be stopped by the formation of clot. This is largely due to an enzyme released by _____

(a) platelets
(b) red blood cells
(c) white blood cells
(d) plasma

99. A vision defect called farsightedness is _____.

(a) myopia
(b) hyperopia
(c) cataract
(d) arthritis

100. Which of the following events are due to adrenalin?

(a) faster breathing; more blood to digestive system
(b) slower heart beats; more blood to skeletal muscles
(c) quicker heart beats; more blood to skeletal muscles
(d) more blood to skeletal muscles and digestive system