



SAMPLE PAPER II

Class 9

(Based on Class 9 Syllabus)

Time Allowed : 3 hrs

Maximum Marks : 100

MATHEMATICS

Q 1. What is the value of k ,if $2x - 1$ is a factor of the polynomial $6x^2 + kx - 2$?

- a) 2 b) 1 c) 0 d) 3

Answer – b

Q2. Factorise $8x^3 - (2x - y)^3$.

- a) $y[12x^2 + y^2 - 6xy]$ b) $x[12x^2 + y - 6xy]$ c) $y[10x^2 + y^2 - 6xy]$ d) None of these

Answer- a

Q3. A system of axioms is called consistent ,when it is _____ to deduce from these axioms, a statement that contradicts any axiom or previously proved statement.

- a) possible b) difficult c) impossible d) easy

Answer –c

Q4. The longest side of a right angled triangle is 125 m and one of the remaining two sides is 100m. Find its area using Heron's formula.

- a) $3000m^2$ b) $2700m^2$ c) $3750m^2$ d) $3850m^2$

Answer – c

Q5. Express $2157/625$ in decimal form.

- a) 2.4513 b) 3.4512 c) 3.5512 d) 2.4512

Answer-b

Q6. If $\triangle ABC$ is right angled at B ,then:

- a) $AB=AC$ b) $AC < AB$ c) $AB=BC$ d) $AC > AB$

Answer-d

Q 7. If one angle of a Triangle is equal to the sum of other two angles,then the Triangle is ?

- a) An isosceles triangle
b) A right triangle
c) An equilateral triangle
d) None of the above

Answer -b

Q8. Find the reflection of the point (-3,-2) in y -axis ?

- a) (3,-2) b) (2,3) c) (-2,-3) d) None of these

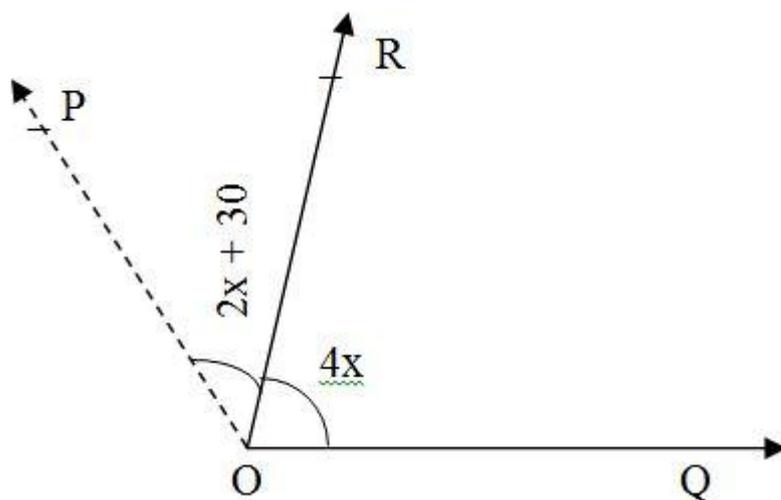
Answer -a

Q9. The angle which is equal to 8 times its complement is :

- a) 90° b) 72° c) 80° d) 88°

Answer -c

Q10. In the given figure, the value of x which makes POQ a straight line is :



- a) 38 b) 25 c) 30 d) 35

Q11. The figure obtained by joining the midpoints of the sides of a rhombus,taken in order,is a_____ .

- a) Rectangle b) Square c) Rhombus d) Parellogram

Answer – a

Q12. If the angles A,B,C and D of a quadrilateral ABCD ,taken in order, are in the ratio of 3:7:6:4 ,then ABCD is a _____.

- a) Rectangle b) Square c) Rhombus d) Trapezium

Answer –d

Q13 .The cost of cementing the inner curved surface of a 14 m deep well of radius 2 m at the rate of Rs 2 per m² is

- a) 110 b) 352 c) 252 d)152

Answer - b

Q14. If the lateral surface area of a cylinder is 132 cm² and its height is 7 cm, then its base diameter is

- a) 5 b) 4 c) 6 d) None of these

Answer - c

Q15. Which of the following is not a measure of central tendency ?

- a) Median b)Mode c)Standard Deviation d) Mean

Answer – c

Q16.If the perimeter of a right triangle is 60cm and its hypotenuse is 26cm.Then the other two sides of the triangle are :

- a) 26cm , 12cm b) 24cm , 10 cm c) 18cm , 10 cm d) 25cm,9cm

Answer - b

Q17. The mean of first four prime numbers is

- a) 3.50 b) 4 c) 5 d) 4.25

Answer- d

Q18.Find the value of $[(16)^{1/2}]^{1/2}$

- a) 16 b)4 c)2 d)8

Answer – c

Q 19. What is the zero of the zero polynomial ?

- a) any number b) every real number c) zero d) None of these

Answer – b

Q 20. Is 7 a constant polynomial ?

- a) Yes b) No c) Cannot Say d) None of these

Answer - a

Q21. If $f(x) = 3x + 5$, then evaluate $f(7) - f(5)$

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

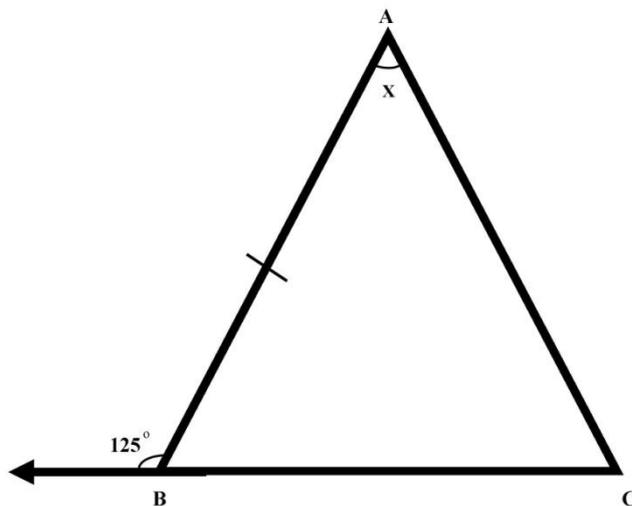
Answer – b

Q22. A pair of dice is tossed. Find the probability that the sum of the numbers of the dice is 10.

- a) $1/10$ b) 1.6 c) $1/12$ d) $1/8$

Answer – c

Q23. In the figure below, if $AB=AC$, then what is the value of X ?



- a) 40° b) 55° c) 65° d) 30°

Answer - b

Q24. Zero of the polynomial $p(x) = a^2x$, $a \neq 0$ is :

- a) $x = 1$ b) $x = -1$ c) $x = 0$ d) $a = 0$

Answer – c

Q25. The sides of a triangle are in the ratio of 25:14:12 and its perimeter is 510m. What will be the greatest side of this triangle ?

- a) 250 m b) 180m c) 125m d) 280m

Answer - a

SCIENCE

Q25. As solid melts to form liquid, what happens?

- a) Inter particle distance increases
b) Inter molecular forces of attraction decreases
c) Compressibility increases
d) All of the above

Answer - d

Q 26. Which of the following is not characteristic of a solid ?

- a) High Rigidity b) Regular Shape c) High density d) High compressibility

Answer - d

Q27. A mixture of oil and water can be separated by:

- a) Sublimation b) Crystallisation c) Separating funnel d) Chromatography

Answer - c

Q28. Which of the following is not a postulate of Dalton's atomic theory ?

- a) Atoms of different elements can have the same mass
b) All matter is made up of atoms
c) Atoms are tiny indivisible and indestructible ultimate particles
d) Atoms combine in small whole number ratios to form compounds

Answer - a

Q29. What happens when dilute Sulphuric acid is added to Zn granules?

- a) Hydrogen gas and Zinc chloride are produced.
b) Chlorine gas and Zinc hydroxide are produced.
c) No reaction takes place.
d) Zinc salt and water are produced.

Answer - a

Q30. Which of the following lacks nucleus ?

- a) Muscle Cell b) Nerve Cell c) WBC d) RBC

Answer - d

Q31. Animal cell lacking nuclei would also lack in _____.

- a) Ribosome b) Lysosome
c) Chromosome d) Endoplasmic reticulum

Answer – c

Q32. The number of chromosome present in a frog are :

- a) 26 b) 8 c) 46 d) 13

Answer – a

Q33. A cell has 10 chromosomes. After mitotic cell divisions the number of chromosomes in the daughter cell will be :

- a) 5 b) 10 c) 4 d) 8

Answer – b

Q34. If a solution contains more amount of solute than the saturation concentration, then it is called a _____ solution .

- a) unsaturated b) oversaturated c) supersaturated d) saturated

Answer – c

Q35. Calculate the amount of glucose required to prepare 250 g of 5 % solution of glucose by mass ?

- a) 10g b) 12.50g c) 15 g d) 13.50 g

Answer – b

Q36. When a beam of light is passed through a colloidal solution placed in a dark space, its path becomes clearly visible. What is this phenomenon called ?

- a) Brownian effect b) Colloidal effect c) Tyndall effect d) None of these

Answer – c

Q37. What is the size of a Prokaryotic cell ?

- a) 50-100 μ m b) 100-1000 μ m c) 50-80 μ m d) 1-10 μ m

Answer- d

Q38. Compost prepared by using earthworms is called _____ ?

- a) Earthycompost b) Vermicompost c) Windrow composting d) None of these

Answer –b

Q39. Which of the following represents a chemical change?

- a. Extraction of copper from copper pyrites
- b. Distillation of water
- c. Melting of wax
- d. Dissolution of salt in water

Answer – a

Q40. Identify the correct symbol of gold:

- a. Go
- b. Ge
- c. Gd
- d. Au

Answer – d

Q41. What is the combining capacity of an element called ?

- a. Valency
- b. Atomicity
- c. Atomic number
- d. Valence electrons

Answer –a

Q42. What type of reaction is respiration ?

- a. Exothermic
- b. Endothermic
- c. Reduction reaction
- d. Combination reaction

Answer –a

Q43.The colour of pure ammonium chloride is :

- a) White b) Blue c) Green d) Red

Answer- a

Q44.Which of the following cannot be separated by the process of sublimation ?

- a) Camphor b) Iodine c) Ammonium Chloride d) Copper Sulphate

Answer- d

Q45. Rahul added iodine solution to four samples of food- A,B,C and D.Which of these will develop blue black colour ?

- A. Boiled Rice
- B. Crushed Potato
- C. Boiled Arhar Dal

D. Powdered Arhar Dal

- a) A,B b) A,B,C c) A,B,D d) A,C,D

Answer – a

Q46. A glass jar containing Hydrogen is inverted over another containing Br₂ gas which is brown in colour and heavier than hydrogen. What will happen after sometime in the inverted gas jar ?

- a) Hydrogen will turn red in colour.
b) There will be no change.
c) The brown colour will appear in the inverted glass jar also.
d) None of the above

Answer – c

Q47. The boiling point of water at sea level is:

- a) 100°C at atmospheric pressure
b) 273K at atmospheric pressure
c) 0°C at atmospheric pressure
d) 0K at atmospheric pressure

Answer - a

Q48. Which of the following has highest intermolecular forces of attraction?

- a) Water at room temperature
b) CO₂ gas
c) Ethyl alcohol
d) Iron metal

Answer –d

Q49. Which of the following is not a postulate of Dalton's atomic theory ?

- a) All matter is made up of atoms
b) Atoms are tiny indivisible and indestructive ultimate particles
c) Atoms combine in small whole number ratios to form compounds
d) Atoms of different elements can have the same mass

Answer – d

Q50. What does an odometer measure ?

- a) Odour in a room b) distance travelled in a vehicle
c) Temperature on a beach d) None of these

Answer - b

GENERAL KNOWLEDGE

Q 51. In which year did Sher Shah Suri defeat Humayun ?

- a) 1539 b) 1545 c) 1607 d) 1589

Answer-a

Q 52. Ho Chi Minh City in Vietnam was earlier known as _____.

- a) Salisbury b) Hanoi c) Saigon d) Cambodia

Answer – c

Q 53. Which city is also known as the City of Seven Hills ?

- a) Ooty b) Rome c) Durban d) Srinagar

Answer –b

Q 54. Who is Ban Ki-Moon ?

- a) President of North Korea
b) King of Tibet
c) Prime Minister of Mongolia
d) Secretary General of United Nations

Answer-d

Q 55. Where is the ILO (International Labour Organization) headquartered ?

- a) New Delhi b) London c) Geneva d) New York

Answer - c

Q 56. Who is the Author of the famous novel "The White Tiger" ?

- a) Kiran Desai b) Salman Rushdie c) Aravind Adiga d) Arundhati Roy

Answer-c

Q 57. Who was the first ever recipient of the Dada Sahib Phalke Award ?

- a) Prithvi Raj Kapoor b) Sohrab Modi c) Dev Anand d) Devika Rani

Answer-d

Q 58. Yogeshwar Dutt won which medal in wrestling in the London Olympics ?

- a) Gold b) Silver c) Bronze d) No Medal

Answer-c

Q 59. Laisram Sarita Devi is associated with which sport ?

- a) Athletics b) Boxing c) Weightlifting d) Swimming

Answer- b

Q 60. When is the World Environment Day ?

a) 1 May b) 25 November c) 6 July d) 5 June
Answer-d

Q61. In which year was the battle of Buxar fought ?

a) 1750 b) 1764 c) 1639 d) 1840
Answer – b

Q 62. Who is the Supreme Commander of the Indian Armed forces ?

a) Prime Minister of India
b) Chief of Army
c) President of India
d) Defence Minister of India
Answer – c

Q 62. In which country are the ruins of Petra situated ?

a) Argentina b) Jordan c) Israel d) Egypt
Answer-b

Q63. What is the Capital of Australia ?

a) Sydney b) Perth c) Canberra d) Melbourne
Answer – c

Q 64. What is the old name of Zimbabwe ?

a) East Africa b) Siam c) Rhodesia d) Zaire
Answer-c

Q 65. Which city in India is famous for Glass works ?

a) Agra b) Bhopal c) Moradabad d) Ferozabad
Answer-d

Q66. A tale of Two Cities was written by _____ ?

a) Charles Lamb b) H.G Wells c) Alexander Dumas d) Charles Dickens
Answer –d

Q67. Which city is the capital of Portugal ?

a) Brussels b) Lisbon c) Lagos d) Porto
Answer – b

Q 68. World War I commenced in which year ?

- a) 1902 b) 1914 c) 1939 d) 1910

Answer – b

Q69. '25' is the latest music album of which singer ?

- a) Beyonce b) Jennifer Lopez c) Adele d) none of these

Answer – c

Q70. The Andes range of mountains are located in _____.

- a) Europe b) North America c) Australia d) South America

Answer – d

Q71. The Jungle Book has been written by which author ?

- a) Kim b) Rudyard Kipling c) J K Rowling d) None of these

Answer – b

Q72. In which year was United Nations formed ?

- a) 1952 b) 1947 c) 1955 d) 1945

Answer – d

Q73. J.R.R Tolkien is a famous _____.

- a) Writer b) Actor c) Priest d) Opera Singer

Answer – a

Q74. The next ICC Cricket World Cup in 2019 will be hosted by which country ?

- a) Australia b) West Indies c) England d) South Africa

Answer – c

Q75. Dilwara Temples are situated in which state ?

- a) Gujarat b) Uttar Pradesh c) Maharashtra d) Rajasthan

Answer - d

MENTAL ABILITY

Q.76 .If INTROVERT : EXTROVERT ,then which of the following follow the same relationship –

(a) ANGLE : TANGENT (b) EXTREME : INTERIM

(c) AGAINST : FAVOUR (d) ACTION : LAW

Answer (c)

Q.77. _____ is to Dusk as Summer is to Monsoon.

(a) Noon (b) Dawn (c) Night (d) Evening

Answer (d)

Q.78 .Shoot is to revolver as Eat is to _____.

(a) Thirst (b) Hunger (c) Fruit (d) Dinner

Answer (c)

Q.79 .If Water : Swimming Pool ,then Spectators : _____.

(a) Mountain (b) Building (c) Stadium (d) Mountain

Answer (c)

Q.80 .If Evaporation : Cloud : Rain represents a certain relationship, then which of the following is similar:

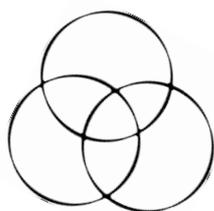
(a) Sneezing : Cough : Cold (b) Accident : Injury : Pain

(c) Tanning : Purse : Leather (d) Bud : Fragrance: Flower

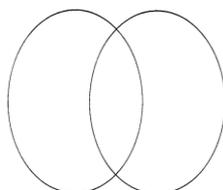
Answer (b)

Q81 . Some of the cricket players are tennis players, some tennis players are hockey players, no cricket player is a hockey player. Which diagram correctly represents the above statements?

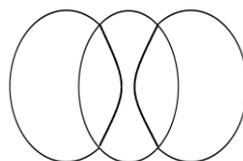
(a)



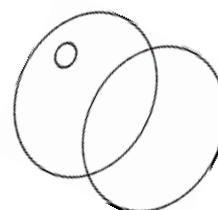
(b)



(c)



(d)



Answer : c

Q82. Today is Tarun`s birthday. One year from today, he will be twice as old as he was 12 years ago. How old is Tarun today ?

- (a) 18 yrs (b) 21 yrs (c) 22 yrs (d) 25 yrs

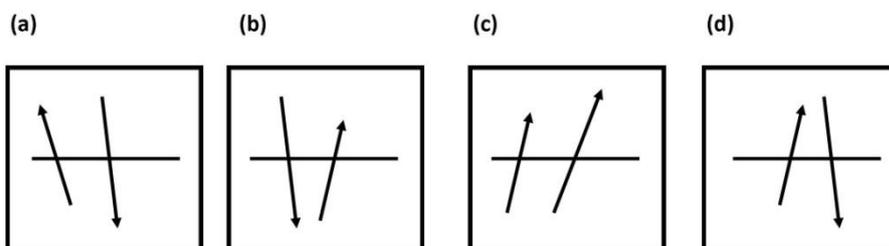
Answer : d – 25 yrs

Q.83 . If the first and second digits in the sequence 5981327438 are interchanged .Also the third and fourth digits,the fifth and sixth digits and so on ,the which digit will be the seventh counting to your left.

- (a) 1 (b) 4 (c) 6 (d) 8

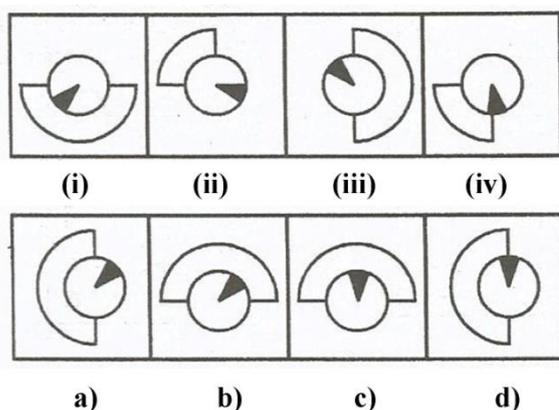
Answer (d)

Q.84 .Choose the figure that is different from the others :



Answer (c)

Q 85 . Study the picture below from (i) to (iv) and find out which figure out of the four options a,b,c and d will come next in the series.



Answer –b

Q86. What comes next ?

- 3, 10, 19, 30, 43, 58, ?

- (a) 78 (b) 67 (c) 76 (d) 75

Answer –d

Q87. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?

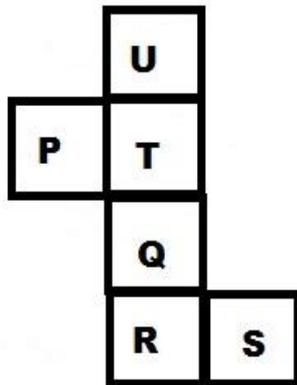
- a) GrandFather b) Grandmother c) Daughter d) Granddaughter

Answer - d

INFORMATION FOR Q 88-90 :

See the diagram below which gives the plane view of a cube.

Then answer the 3 questions (88-90) below :-



Q 88. Which face will be opposite to face “T” after folding the cube ?

- (a) P (b) Q (c) R (d) U

Answer - c

Q 89. Which face will be on top if face “T” is at the bottom ?

- (a) Q (b) R (c) S (d) U

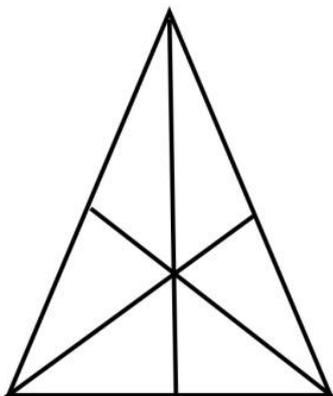
Answer –b

Q 90. Which two faces will be opposite to each other ?

- (a) P & R (b) Q & S (c) P & U (d) Q & U

Answer -d

Q 91.How many triangles are there in the following figure ?



a)16 b)14 c) 7 d) 10

Answer a

Q92. Kunal started to walk towards the south. He walked for 15 meters and turned left and walked 15 meters. He again turned to his left and walked 15 meters. How far is he from his original position and in which direction ?

(a) 15 M, South (b) 10 M, East (c) 15M, North (d) 15 M, East

Answer : d

Q93. How many pairs of letters in the word 'CHAIRS' have as many letters between them in the word as in the alphabet?

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

Answer – b

Q94. If in the word 'DISTURBANCE', the first letter is interchanged with the last letter, the second letter is interchanged with the tenth letter and so on, which letter would come after the letter T in the newly formed word ?

a) S b) B c) N d) T

Answer –a

Q 95. How many independent words can 'STAINLESS' be divided into without changing the order of the letters and using each letter only once ?

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

Answer – a

Q96. If TWENTY is coded as 863985 ,and ELEVEN is coded as 323039 ,then how will TWELVE be coded .

(a) 683563 (b) 203863 (c) 863651 (d) 863203

Answer (d)

Q97. Find out the wrong term in the series 2, 5, 10, 50, 500, 5000 .

- a) 500 b) 5000 c) 10 d) 50

Answer –b

Q98. Choose the missing terms out of the given alternatives Z, S, W, O, T, K, Q, G, ?, ?

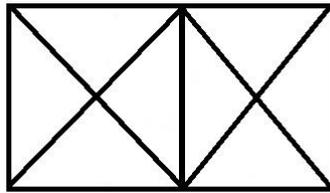
- a) N,D b) N,C c) O,D d) O,C

Answer –b

Q99. In a certain code ,RECTANGLE is coded as TGEVCPING ,then using the same code,how will you code RHOMBUS.

- (a) UVWTJON (b) TJOQDWV (c) TJQODWU (d) TAMBUSO
Answer (c)

Q100. How many triangles does the following figure have ?



- (a) 12 (b) 18 (c) 15 (d) 20

Answer : b