

GENERAL KNOWLEDGE AND COMPUTER BASICS

Read the questions that follow and identify the correct choice. (Questions 1-20)

1. Which country has hosted Miss World Pageant maximum number of times since its first edition ?
(A) South Africa
(B) UK
(C) USA
(D) China
2. Which country is called the 'Land of Morning Calm' ?
(A) Japan
(B) Korea
(C) Netherlands
(D) Norway
3. Name the currency of UAE.
(A) Peso
(B) Rial
(C) Dirham
(D) Baht
4. Indian Oil Corporation Ltd is a
(A) Navaratna Company
(B) Maharatna Company
(C) Miniratna Company
(D) None of the above
5. 'By God's Decree' is the autobiography of
(A) P T Usha
(B) Kapil Dev
(C) Pandit Ravi Shankar
(D) Dalai Lama

Space for Rough Work

6. Which country won more number of total medals than Great Britain in London Olympics 2012 but still ranked fourth in the list according to number of gold medals ?
- (A) China
 - (B) Germany
 - (C) Russia
 - (D) Japan
7. Entomology is the science that studies
- (A) Human Brains
 - (B) Human Behaviour
 - (C) Insects
 - (D) Human Nervous System
8. What is Dumping ?
- (A) It occurs when manufacturers of a country export a product to another country at a price below the price charged in its home market.
 - (B) It occurs when manufacturers of a country export a product to another country at a price above the price charged in its home market.
 - (C) It occurs when manufacturers of a country import an input from another country at a price below the price charged in its home market.
 - (D) None of the above
9. DMA stands for
- (A) Distinct Memory Access
 - (B) Direct Memory Access
 - (C) Direct Messaging Action
 - (D) Direct Matching Action
10. Which nutrients are most likely to be affected by food processing and storage ?
- (A) Proteins
 - (B) Fats
 - (C) Vitamins
 - (D) Carbohydrates

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11. When was the Reserve bank of India taken over by the government ?
- (A) 1936
 - (B) 1945
 - (C) 1951
 - (D) 1948
12. With which country's assistance was Bokaro Steel Plant established ?
- (A) USA
 - (B) Germany
 - (C) USSR
 - (D) France
13. Which network protocol is used to send email ?
- (A) POP3
 - (B) SMTP
 - (C) SSH
 - (D) FTP
14. What was the original Apple computers logo ?
- (A) Red apple
 - (B) Sir Isaac Newton under an apple tree
 - (C) Rainbow Apple
 - (D) Green Apple
15. What does the term MIME stand for ?
- (A) Multipurpose Internet Mail Extensions
 - (B) Multipurpose Internet Memory Extensions
 - (C) Multipurpose Internet Mail Exchange
 - (D) Multipurpose Information Management Exchange

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16. Name the author of the book 'Sea of Poppies'.
- (A) Anita Desai
 - (B) Amitav Ghosh
 - (C) Salman Rushdie
 - (D) Kiran Desai
17. Name the first Indian to win the Booker Prize.
- (A) Bikram Seth
 - (B) Anita Desai
 - (C) Arundhati Roy
 - (D) Kiran Desai
18. What is the full form of FEMA ?
- (A) Federation of Environment Management Activities
 - (B) Free Economic Market Association
 - (C) Foreign Exchange Regulation Act
 - (D) Forward Exchange Market Agency
19. What is the tagline of TCS ?
- (A) Like No Other
 - (B) Emotionally Yours
 - (C) Beyond the Obvious
 - (D) You and US
20. Who among the following won the Nobel Prize in Economics in 2012 ?
- (A) Alvin E. Roth
 - (B) Thomas J. Sargent
 - (C) Paul Krugman
 - (D) Edmund S. Phelps

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VERBAL REASONING

In each of the following arrange the words in a meaningful sequence (Questions 21-23).

21. A. prime B. stretch canvas C. preliminary drawing D. varnishing E. painting
(A) CEABD
(B) BACED
(C) EBDAC
(D) BCEAD
22. A. practice B. voice training C. famous D. performance E. appreciation
(A) CEABD
(B) BCEAD
(C) BADEC
(D) ABDCE
23. A. ticket B. plan C. photograph D. visit E. display
(A) BDACE
(B) BDECA
(C) BADCE
(D) BADEC

In each of the following questions four pairs of synonyms are supplied, out of which three pairs are alike/similar in certain ways and the fourth one is different (not a pair of synonyms). Choose the ODD pair out (Questions 24-27).

24. Identify the odd pair.
(A) Befit : Suit
(B) Scuff : Berate
(C) Behavior : Demeanor
(D) Billet : Quarter
25. Identify the odd pair.
(A) Cretin : Idiot
(B) Ability : Power
(C) Lilac : Purple
(D) Redolent : Malodor

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26. Identify the odd pair.
- (A) Eccentric : Bizarre
 - (B) Capricious : Impulsive
 - (C) Slothful : Indolent
 - (D) Lurch : Stain

27. Identify the odd pair
- (A) Coquette : Seduce
 - (B) Destitute : Demoralize
 - (C) Disdain : Scorn
 - (D) Cholera : Ire

The following questions consist of two words each that have a certain relationship with each other, followed by four pairs of words. Select the pair which has the SAME relationship (or the most similar relationship) as the original pair of words (Questions 28-32).

28. Paper : Sketch
- (A) Water : Germs
 - (B) Land : house
 - (C) Pills : Casing
 - (D) Steel : Plate
29. Glass box : Light
- (A) Perfume bottle : Fragrance
 - (B) Clouded atmosphere : Sunlight
 - (C) Diamond : Cut glass
 - (D) Cement : Block

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30. Screen : Power Saver
(A) TV : Standby
(B) Engine : Idling
(C) Music : Silence
(D) Battery : Backup
31. Gun : Bullet
(A) Stove : Gas Cylinder
(B) Shoe : Polish
(C) Packet : Paper
(D) Pen : Refill
32. Water: Cloud
(A) Matter: Solid
(B) Carbon: Diamond
(C) Petroleum: Jelly
(D) Fan: Metal

In the following questions there is a certain relationship between two given words on both sides of (::). Only one word is given on the other side of (::). Choose the MOST APPROPRIATE word from the alternatives given below (Questions 33-36).

33. Arrow: ? :: Bow: Catapult
(A) Stone
(B) Pebble
(C) Granite
(D) Sand

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34. Hydrogen : ? :: Air : Lamp
(A) Filament
(B) Electricity
(C) Room
(D) Holder
35. Finger : String :: Hand : ?
(A) Fabric
(B) Cotton
(C) Drums
(D) Guitar
36. Blanket : Summer :: Winter : ?
(A) Exhaust
(B) AC
(C) Heat
(D) Draught

Choose the MOST APPROPRIATE definition for the following words (Questions 37-42).

37. Goth
(A) Crude religion
(B) A rustic tribe of Asia
(C) A kind of boat used in seas
(D) Crude uncultured person

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38. Peevishness
- (A) Display of unhappiness
 - (B) Show of irritability
 - (C) Expression of love
 - (D) A state of anxiety
39. Ventriloquist
- (A) A ventral gill of a fish
 - (B) A ventilation channel used in hospitals
 - (C) A performer who projects his voice at another place
 - (D) A kind of vibration in voice used by theatre artists
40. Induction
- (A) A certain kind of current flow
 - (B) Mechanical property of an object
 - (C) Getting introduced formally
 - (D) A formal entry into an organization
41. Contraband
- (A) Distributed or sold illegally
 - (B) Contradictory statements
 - (C) A kind of band used in electrical machines
 - (D) Negative kind of bind
42. Samba
- (A) A lively ballroom dance from Brazil
 - (B) A kind of American tree
 - (C) Boat made of thin tree trunks
 - (D) A musical instrument

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In the questions below four words are provided at the beginning. If you add one of the four choices to one of the four words given at the beginning, you will get a new word. Find the correct choice (Questions 43-46).

43. Dour/ Sour/ Lower/ Gour

- (A) Pet
- (B) Let
- (C) Met
- (D) Hate

44. Man/ Han/ Can/ Gran

- (A) Should
- (B) Soon
- (C) Sun
- (D) Some

45. Rate/ Great/ Prate/ Crate

- (A) Rane
- (B) Pane
- (C) Dane
- (D) Hen

46. Prose/ Rose/ Does/ Hose

- (A) Mary
- (B) Harry
- (C) Tarry
- (D) Berry

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In the following questions identify the word which has the OPPOSITE meaning to one of the three words presented at the beginning (Questions 47-51).

47. Chronicle / Nickel / Sickle
(A) Piston
(B) Fantasy
(C) Cutter
(D) Metal
48. Hinder/ Wander/ Tinder
(A) Expose
(B) Fire
(C) Rumble
(D) Grovel
49. Destructive / Performative / Protective
(A) Restorative
(B) Constructive
(C) Productive
(D) Regressive
50. Singular / Regular / Angular
(A) Reward
(B) Rotund
(C) Remand
(D) Regress
51. Pace / Base / Stress
(A) Suffix
(B) Influx
(C) Reflex
(D) Relax

Space for Rough Work

In the questions below a word is given with a number of synonyms or similar words in the option. Identify the option which is the least appropriate (Questions 52-54).

52. Covet
(A) Harp
(B) Envy
(C) Begrudge
(D) Desire
53. Beatitude
(A) Beatification
(B) Epiphany
(C) Grace
(D) Blessedness
54. Decree
(A) Fiat
(B) Edict
(C) Discourse
(D) Order

The questions that follow are based on CODES. Read the instructions carefully and answer. In a certain code, “life is good,” is written as *tik tak toe* and “who am I,” as *tum ti chi* (Questions 55-56).

55. “Who is good,” will be written as
(A) tik toe tum
(B) tum chi tik
(C) tum tak toe
(D) tum chi toe
56. “I am life” is written as
(A) chi ti toe
(B) chi ti tik
(C) chi tak toe
(D) chi tum tak

Space for Rough Work

Identify the odd word in each of the following questions (Questions 57-60).

57. Identify the odd word.

- (A) Barbarian
- (B) Patrician
- (C) Boor
- (D) Provincial

58. Identify the odd word.

- (A) Impoverish
- (B) Deprive
- (C) Divest
- (D) Dislocate

59. Identify the odd word.

- (A) Affectional
- (B) Kind
- (C) Emotional
- (D) Feeling

60. Identify the odd word.

- (A) Dissonance
- (B) Discard
- (C) Noise
- (D) Racket

Space for Rough Work

COMPREHENSION

Read the text below carefully and answer the questions that follow (Questions 61-70). Choose the most appropriate choice for each question.

Learning style is an individual's natural or habitual pattern of acquiring and processing information in learning situations. A core concept is that individuals differ in how they learn. The idea of individualized "learning styles" originated in the 1970s, and acquired "enormous popularity".

Proponents for the use of learning styles in education said that teachers should assess the learning styles of their students and adapt their classroom methods to best fit each student's learning style. Although there is ample evidence for differences in individual thinking and ways of processing various types of information, few studies have reliably tested the validity of using learning styles in education. Critics say there is no evidence that identifying an individual student's learning style produces better outcomes. There is evidence of empirical and pedagogical problems related to the use of learning tasks to "correspond to differences in a one-to-one fashion". Well-designed studies contradict the widespread "meshing hypothesis", that a student will learn best if taught in a method deemed appropriate for the student's learning style.

The David A. Kolb styles model is based on the Experiential Learning Theory, as explained in his book *Experiential Learning: Experience as the source of learning and development* (1984). The ELT model outlines two related approaches toward grasping experience: Concrete Experience and Abstract Conceptualization, as well as two related approaches toward transforming experience: Reflective Observation and Active Experimentation. According to Kolb's model, the ideal learning process engages all four of these modes in response to situational demands. In order for learning to be effective, all four of these approaches must be incorporated. As individuals attempt to use all four approaches, however, they tend to develop strengths in one experience-grasping approach and one experience-transforming approach. The resulting learning styles are combinations of the individual's preferred approaches. These learning styles are as follows: (1) Converger (2) Diverger (3) Assimilator (4) Accommodator.

Convergers are characterized by abstract conceptualization and active experimentation. They are good at making practical applications of ideas and using deductive reasoning to solve problems.

Divergers tend toward concrete experience and reflective observation. They are imaginative and are good at coming up with ideas and seeing things from different perspectives.

Assimilators are characterized by abstract conceptualization and reflective observation. They are capable of creating theoretical models by means of inductive reasoning.

Accommodators use concrete experience and active experimentation. They are good at actively engaging with the world and actually doing things instead of merely reading about and studying them.

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Kolb's model gave rise to the Learning Style Inventory, an assessment method used to determine an individual's learning style. An individual may exhibit a preference for one of the four styles—Accommodating, Converging, Diverging and Assimilating—depending on their approach to learning via the experiential learning theory model.

Although Kolb's model is the most widely accepted with substantial empirical support, recent studies suggest the Learning Style Inventory (LSI) is seriously flawed.

61. What is learning style ?
 - (A) The way people learn
 - (B) One's natural or habitual pattern of learning
 - (C) A core concept in learning psychology
 - (D) A popular way of learning

62. According to learning styles theory, which is the best way to teach ?
 - (A) According to the teacher's orientation
 - (B) According to the student's weaknesses
 - (C) According to the student's orientation
 - (D) According to the feedback system

63. What does the "meshing hypothesis" suggest ?
 - (A) That one learns better if taught according to one's style.
 - (B) That learning is context dependant.
 - (C) That learning and teaching must meet and compromise.
 - (D) That teaching should be one to one.

64. Which two related approaches to grasping experience does the ELT model outline ?
 - (A) Concrete experience and Reflective observation
 - (B) Concrete observation and Reflective experience
 - (C) Active experimentation and Reflective observation
 - (D) Concrete experience and Abstract conceptualization

65. ELT outlines two approaches to transforming experience. They are:
 - (A) Concrete experience and Reflective observation
 - (B) Concrete observation and Reflective experience
 - (C) Reflective observation and Active experimentation
 - (D) Reflective experimentation and Active observation

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66. What is the main characteristic of an assimilator ?
- (A) She conceptualizes in an abstract manner and observes reflectively.
 - (B) She accommodates but diverges.
 - (C) She learns via experimental learning.
 - (D) She does things.
67. Accommodators learn by
- (A) experiential reading
 - (B) actively engaging
 - (C) analytical thinking
 - (D) interaction and touch
68. Diverges are more ___ than assimilators.
- (A) deductive
 - (B) abstract
 - (C) concrete
 - (D) inductive
69. What does the learning style inventory assess ?
- (A) Skills
 - (B) Orientation
 - (C) Intelligence
 - (D) Alertness
70. Choose the most apt title for the piece.
- (A) Learning and Teaching
 - (B) Individual Learning Orientations
 - (C) Styles and Attitudes
 - (D) Improving Learning

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Read the poem below carefully and answer the questions that follow (Questions 71-80). Choose the most appropriate choice for each question.

The price seemed reasonable, location
Indifferent. The landlady swore she lived
Off premises. Nothing remained
But self-confession. "Madam," I warned,
"I hate a wasted journey—I am African."
Silence. Silenced transmission of
Pressurized good-breeding. Voice, when it came,
Lipstick coated, long gold rolled
Cigarette-holder pipped. Caught I was foully.
"HOW DARK ?" . . . I had not misheard . . . "ARE YOU LIGHT
OR VERY DARK ?" Button B, Button A. Stench
Of rancid breath of public hide-and-speak.
Red booth. Red pillar box. Red double-tiered
Omnibus squelching tar. It was real! Shamed
By ill-mannered silence, surrender
Pushed dumbfounded to beg simplification.
Considerate she was, varying the emphasis--
"ARE YOU DARK ? OR VERY LIGHT ?" Revelation came.
"You mean--like plain or milk chocolate ?"
Her assent was clinical, crushing in its light
Impersonality. Rapidly, wave-length adjusted,
I chose. "West African sepia"--and as afterthought,
"Down in my passport." Silence for spectroscopic
Flight of fancy, till truthfulness clanged her accent
Hard on the mouthpiece. "WHAT'S THAT ?" conceding
"DON'T KNOW WHAT THAT IS." "Like brunette."
"THAT'S DARK, ISN'T IT ?" "Not altogether.
Facially, I am brunette, but, madam, you should see
The rest of me. Palm of my hand, soles of my feet

Space for Rough Work

Are a peroxide blond. Friction, caused--
Foolishly, madam--by sitting down, has turned
My bottom raven black--One moment, madam!"--sensing
Her receiver rearing on the thunderclap
About my ears--"Madam," I pleaded, "wouldn't you rather
See for yourself?"

71. Why does the author say, "Nothing remained but self-confession" ?
- (A) Because the author is tired.
 - (B) Because the author is black.
 - (C) Because the author has had failures.
 - (D) Because the author hates wasted journeys.
72. What is a spectroscope ?
- (A) An instrument for measurement of light and colour.
 - (B) An eye identification tool.
 - (C) An instrument used by opticians.
 - (D) A tool for analysis of the light and intensity of the sun.
73. "Her assent was clinical." Does the author mean that
- (A) she was arrogant
 - (B) she was aggressive
 - (C) she showed her hatred
 - (D) she was insensitive
74. "It was real!" What was real according to the author ?
- (A) The conversation
 - (B) The question about skin
 - (C) The telephone booth
 - (D) The lady

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75. "Rapidly, wave-length adjusted..." What kind of wave-length does the author refer to ?
(A) About the spectroscope
(B) About how to retort to the woman
(C) About how to accept humiliation
(D) About the wave-length of black and white people
76. "Considerate she was, varying the emphasis..." Does the author suggest that she
(A) was trying to be nice
(B) was civilized and hence repeated the question
(C) was very rude and insensitive
(D) was asking an obvious question
77. Identify which one of these is an ironic statement.
(A) Wouldn't you rather see for yourself ?
(B) The price seems reasonable.
(C) Her assent was clinical.
(D) I hate a wasted journey.
78. Choose the most appropriate title for the piece.
(A) The fight
(B) Telephone conversation
(C) Black and brown
(D) The woman on the other side
79. What does "thunderclap" mean ?
(A) A shower with thunder
(B) A shocking news
(C) A single loud crash of thunder
(D) A clap that sounds like thunder
80. What is the meaning of "public hide and speak" ?
(A) A phone booth
(B) Telephoning without seeing one another
(C) A shameful conversation
(D) A talk where people do not see each other

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LOGICAL REASONING

Read the questions that follow and identify the correct choice. (Questions 81-120)

81. Amrita borrowed some money and refunded it in three equal quarterly instalments. Each instalment was ₹ 17576. If the rate of interest was 16% per annum compounded quarterly, what was the sum borrowed ?
(A) ₹ 46475
(B) ₹ 44275
(C) ₹ 56575
(D) ₹ 48775
82. Akshat can do a piece of work in 20 days. He started the work and left after some days when 25% of the work had been done. After that Amrit joined and completed it working for 10 days. If Akshat and Amrit work together, in how many days can they do the complete work ?
(A) 8
(B) 9
(C) 10
(D) 11
83. The length of Dhauli Express is 80 m and that of Purushottam Express is 120 m. The two trains are running in the same direction with velocities of 50 km/h and 40 km/h respectively. What is the time required for them to cross each other ?
(A) 72 seconds
(B) 90 seconds
(C) 54 seconds
(D) 36 seconds
84. The base of a right angled triangle is 8 cm and hypotenuse is 17 cm. What is its area ?
(A) 48 cm^2
(B) 56 cm^2
(C) 60 cm^2
(D) 64 cm^2
85. The sum of all the interior angles of a regular polygon is four times the sum of its exterior angles. The polygon is
(A) Decagon
(B) Hexagon
(C) Octagon
(D) Nonagon

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86. If x, y and z are positive real numbers, find the least value of $(x + y + z) \left(\frac{1}{x} + \frac{1}{y} + \frac{1}{z} \right)$.
- (A) 3
(B) 6
(C) 9
(D) 11
87. A two digit number is such that the product of its digits is 12. If 36 is added to the number, its digits are reversed. What is that number ?
- (A) 22
(B) 24
(C) 26
(D) 28
88. In an opinion poll among 80 persons, 50 persons showed interest for single screen cinemas and 70 persons liked multiplexes. Find the minimum and maximum number of persons who liked both the cinemas respectively.
- (A) 40, 50
(B) 30, 40
(C) 45, 55
(D) None of the above
89. The sum of three consecutive terms in a geometric progression is 42 and their product is 512. What is the largest number ?
- (A) 24
(B) 20
(C) 32
(D) 2835
90. In how many ways can 5 students and 3 teachers stand in a row so that no two teachers are together ?
- (A) 7522
(B) 2275
(C) 10044
(D) 14400

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91. A fair coin is tossed repeatedly. If head appears on first four tosses, what is the probability of tail appearing on fifth toss ?
- (A) $\frac{1}{2}$
(B) $\frac{1}{12}$
(C) $\frac{1}{5}$
(D) $\frac{1}{10}$
92. One-fourth of Ashok's income is equal to one-sixth of Nupur's income. Together if they earn ₹ 600, find the difference between their earnings.
- (A) ₹ 110
(B) ₹ 120
(C) ₹ 125
(D) ₹ 105
93. If a number is divided by 15, it leaves a remainder of 7. If thrice the number is divided by 5, find the remainder.
- (A) 1
(B) 2
(C) 3
(D) 4
94. If the age of the mother is raised to the power of the age of her daughter, there will be no change in the mother's age. If the sum of the ages of the mother and daughter is 30, find mother's age.
- (A) 23
(B) 25
(C) 27
(D) 29

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95. In an organization, 40% of the employees are women and 75% of women earn more than ₹ 25000 per annum. 45% of the employees earn more than ₹ 25000 per annum. Find what fraction of the men employed in the organization earn less than or equal to ₹ 25000 per annum.
- (A) $\frac{3}{4}$
- (B) $\frac{1}{4}$
- (C) $\frac{1}{5}$
- (D) $\frac{2}{3}$
96. One green balloon, three red balloons and two yellow balloons are arranged in a line such that :
- I. No two adjacent balloons are of the same colour
- II. The balloons at the two ends of the line are of different colours
- In how many different ways can we arrange the balloons?
- (A) 5
- (B) 4
- (C) 3
- (D) 6
97. If a, b and c are real numbers such that $a + b + c = 5$ and $ab + bc + ca = 3$, find the largest value that 'a' can have ?
- (A) $\frac{5}{2}$
- (B) $\sqrt{5}$
- (C) $\sqrt{25}$
- (D) None of the above

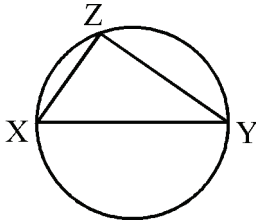
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98. In the given series: 70, 71, 76, __, 81, 86, 70, 91, . . .

Find the number should fill the blank ?

- (A) 80
- (B) 70
- (C) 78
- (D) 83

99. The figure given below shows a circle of diameter XY and radius 6.5 cm. If chord ZX is 5 cm long, what is the area of triangle XYZ ?



- (A) 45 sq cm
- (B) 30 sq cm
- (C) 50 sq cm
- (D) 60 sq cm

100. A survey was conducted on 40 respondents. It was found that 75% of the respondents could be able to write and 20% could not read. What is the maximum number of respondents who could either not write or not read ?

- (A) 20
- (B) 18
- (C) 16
- (D) 14

101. If $24^{29} + 34^{29}$ is divided by 29, what is the remainder ?

- (A) 0
- (B) 1
- (C) 2
- (D) 3

Space for Rough Work

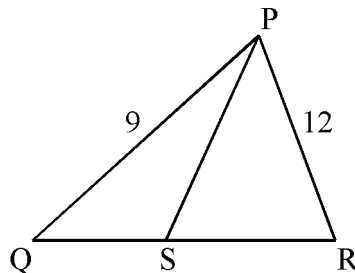
102. If the first two numbers are greater than the third number by 25% and 20% respectively, find what percent of the first number is the second number.
- (A) 90%
(B) 92%
(C) 94%
(D) 96%
103. Find the smallest natural number which is cube of a natural number and fourth power of a different natural number.
- (A) 4096
(B) 4026
(C) 4556
(D) 4296
104. Out of first 1200 natural numbers, find how many are not divisible by any of 2, 3 and 5.
- (A) 300
(B) 280
(C) 320
(D) 480
105. A number if divided by 3, 4, 5, and 6 always leaves a remainder of 2, but leaves no remainder if divided by 7. Find the lowest such number possible.
- (A) 164
(B) 182
(C) 194
(D) 212
106. If $N = \frac{1}{\sqrt{2}-\sqrt{1}} - \frac{1}{\sqrt{3}-\sqrt{2}} + \frac{1}{\sqrt{4}-\sqrt{3}} - \dots - \frac{1}{\sqrt{121}-120}$, find the value of N .
- (A) 9
(B) 12
(C) -10
(D) -9

Space for Rough Work

107. Neelachal Express leaves Bhubaneswar for New Delhi, a distance of 1600 km. At the same time, Utkal Express leaves Mumbai for Calcutta. The trains meet at Kanpur, which has a distance of 700 km from New Delhi. Find the ratio of the speeds of the trains.
- (A) 6 : 5
(B) 7 : 5
(C) 9 : 7
(D) 9 : 6
108. A river flows at a speed of 1.5 km/h and person A rowing his boat at a speed of 2.5 km/h in still water takes $7\frac{1}{2}$ hours to go a certain distance upstream and return to the starting point. Find the total distance covered by A.
- (A) 10 km
(B) 11 km
(C) 12 km
(D) 13 km
109. The surface area of a cube is 864 sq metres. What is the volume of the cube ?
- (A) 1728 m³
(B) 1331 m³
(C) 1000 m³
(D) 729 m³
110. A dice is tossed 5 times. Find the probability that 5 shows up exactly thrice.
- (A) $\frac{112}{2858}$
(B) $\frac{125}{3888}$
(C) $\frac{125}{3825}$
(D) $\frac{125}{2825}$

Space for Rough Work

111. Antara moves towards south-east a distance of 7 m. Then she moves towards west and travels a distance of 14 m. From there, she moves towards north-west a distance of 7 m and then she moves a distance of 4 m towards east and stands at that point. Find the distance of the starting point from where she stands.
- (A) 10 m
 (B) 8 m
 (C) 12 m
 (D) 11 m
112. How old is Rahul ?
- (1) Rahul, Anuj and Arabind are all of the same age.
 (2) Total age of Anuj, Arabind and Ranjan is 32 and Ranjan is as old as Anuj and Arabind together.
- (A) Statement (1) ALONE is sufficient to answer the question but statement (2) alone is not sufficient;
 (B) Statement (2) ALONE is sufficient to answer the question but statement (1) alone is not sufficient;
 (C) The two statements TAKEN TOGETHER are sufficient to answer the question, but NEITHER statement ALONE is sufficient;
 (D) EACH statement ALONE is sufficient to answer the question.
113. In the following triangle PQR, PQ = 9, QR = 10, PR = 12. What is the length of median through P ?



- (A) $\sqrt{\frac{7}{2}}$
 (B) $5\sqrt{\frac{7}{2}}$
 (C) $5\sqrt{\frac{5}{2}}$
 (D) $\sqrt{\frac{5}{2}}$

Space for Rough Work

114. Mrs Tripathy wants to plant 36 dahlia seedlings, 144 ester seedlings and 234 marigold seedlings in her flower garden. If she wants to plant equal number of seedlings in every row, but the rows of three varieties of seedlings will be separate, find the number of rows in her garden.

- (A) 16
- (B) 23
- (C) 34
- (D) 14

115. Find the sum of the following series:

$$\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{100 \times 101}$$

- (A) $\frac{101}{100}$
- (B) $\frac{100}{101}$
- (C) $\frac{1}{100}$
- (D) $\frac{1}{101}$

116. In mathematics examination of class IX in a school, if the average marks of one-third of the students was 70%, that of one-fourth of the students was 85% and the average marks of the remaining students was 56%, what was the average marks of the whole class in mathematics ?

- (A) 65.215%
- (B) 68.316%
- (C) 66.519%
- (D) 67.916%

Space for Rough Work

117. Eleven years ago Rahul's family had four members and their average age was 28 years. Meanwhile two members were born in his family. But the new average age of the family remained unchanged. If two children belonged to the same parents and the age of the first child at the time of the birth of the second child was same as there were total family members just after the second child was born, find the present age of the youngest child.
- (A) 9
(B) 4
(C) 8
(D) 5
118. The ratio of water and milk in two different containers is 2 : 3 and 4 : 5. Find the ratio in which one is required to mix the mixtures of two containers so that one gets the new mixture of milk and water in the ratio of 7 : 5.
- (A) 5 : 3
(B) 3 : 5
(C) 5 : 2
(D) 4 : 3
119. In an urban local body election, three candidates Amaresh, Sudhanshu and Rita contested in a constituency. Out of total voters, 25% did not vote and 6.66% votes polled became invalid. Rita received 2450 valid votes, which was 40% more than what Sudhanshu received. If Amaresh received 40% of the total votes, find the winner.
- (A) Sudhanshu
(B) Rita
(C) Amaresh
(D) Cannot be determined
120. The profit of selling 10 sampoons is equal to the selling price of 3 deodorants and the loss of selling 10 deodorants is equal to the selling price of 4 sampoons. Profit percentage is equal to the loss percentage and the cost of a sampoon is half the cost of a deodorant. Find the ratio of selling price of a sampoon to the selling price of a deodorant.
- (A) 3 : 1
(B) 4 : 3
(C) 3 : 2
(D) 5 : 3

Space for Rough Work

Space For Rough Work