



1. Who among the following participated in the Chittagong armoury raid, along with Surya Sen and other revolutionaries on April 18, 1930?
 - (a) Jatin Das
 - (b) Bhagat Singh
 - (c) Ganesh Ghosh
 - (d) Aurobindo Ghosh
2. Which is the last one in the chronological order?
 - (a) Cabinet Mission Plan
 - (b) Bombay Plan
 - (c) Wavell Plan
 - (d) Mountbatten Plan
3. Namdhari Movement was launched by:
 - (a) Balak Singh
 - (b) Shiv Dayal
 - (c) Darbara Singh
 - (d) Dayal Das
4. Which one of the following was not one of the three who was invited to take part in the Round Table Conference in 1930?
 - (a) Sarojini Naidu
 - (b) Jehanara Shah Nawaz
 - (c) Radhabai Subbarayan
 - (d) Kasturba Gandhi
5. The plan of Sir Stafford Cripps envisaged that after the Second World War:
 - (a) India should be granted complete independence
 - (b) India should be partitioned into two before granting independence
 - (c) India should be made a republic with the condition that she will join the Commonwealth
 - (d) India should be given dominion status
6. The judge of Ahmedabad court who punished Gandhiji in connection with non-cooperation movement:
 - (a) RS Broomfield
 - (b) Macaulay
 - (c) Stevenson
 - (d) William Jones
7. Consider the following statements:
 1. The minimum age prescribed for any person to be a member of Panchayat is 25 years.
 2. A Panchayat constituted after premature dissolution continues only for the remainder period.
 Which of the following statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
8. The Vice President of the Constituent Assembly was:
 - (a) Harendra Coomar Mookerjee
 - (b) Jawaharlal Nehru
 - (c) Sardar Patel
 - (d) Dr S Radhakrishnan
9. The four languages added to the Eighth Schedule recently:
 - (a) Manipuri, Konkani, Nepali, Santhali
 - (b) Dogri, Maithili, Konkani, Bodo
 - (c) Dogri, Maithili, Sindhi, Bodo
 - (d) Dogri, Maithili, Sindhi, Nepali
10. Who among the following has the right to vote in the Presidential election in India?
 1. Member Loksabha
 2. Member of Rajya Sabha
 3. Member of State Legislative Council
 4. Member of State Legislative Assembly
 5. Nominated member of Parliament
 - (a) 1,2,3
 - (b) 1,2,3,4
 - (c) 1,2,4,5
 - (d) 1,2,4
11. The number of which among the following would be maximum in a food chain?
 - (a) Producers
 - (b) Primary consumers
 - (c) Secondary consumers
 - (d) Decomposers
12. Receptacle, bract and perianth are the useful parts of:
 - (a) Pomegranate
 - (b) Maize
 - (c) Custard apple
 - (d) Pineapple
13. Which among following is considered to be the best soil for plant growth?
 - (a) Sand
 - (b) Clay
 - (c) Loam
 - (d) Silt
14. White blood corpuscles in the body have a diameter approximately:

- (a) 0.7 mm
(b) 0.07 mm
(c) 0.007 mm
(d) 0.0007 mm
15. Which one of the following set belongs to the class Mammalia?
(a) Lion, Hippopotamus, Penguin, Bat
(b) Lion, Bat, Whale, Ostrich
(c) Hippopotamus, Penguin, Whale, Kangaroo
(d) Whale, Bat, Kangaroo, Hippopotamus
16. Industrial growth of a country is measured in terms of ---- it produces annually.
(a) Nitric acid
(b) Formic acid
(c) Hydrochloric acid
(d) Sulphuric acid
17. Water expands by about% as it freezes.
(a) 25 (b) 20
(c) 5 (d) 10
18. The first to use the word 'Green chemistry':
(a) M.S. Swaminathan
(b) Paul Anastas
(c) Lavoisier
(d) None of these
19. A Potato tuber has been cut into two halves. A few drops of iodine solution are placed on the cut surface of one of the halves. What colour change will be notified.
(a) From brown to blue-black
(b) From brown to orange-red
(c) From blue to pink
(d) From pink to blue green
20. It is easier to roll a barrel full of coal tar than to pull it because:
(a) The full weight of the barrel comes into play when it is pulled
(b) The rolling friction is less than the sliding friction
(c) More surface area of the barrel is in contact with the road when it is pulled
(d) Coal tar is a liquid and flows in the barrel when it is rolled
21. Who among the following actively participated in Vaikom Satyagraha but didn't participated in Guruvayur Satyagraha as he had gone abroad to practise law?
(a) K. Kelappan
(b) T.K. Madhavan
(c) A.K. Gopalan
(d) K.P. Kesavamenon
22. Consider the following:
1. K. Karunakaran 2. V.S. Achuthanandan 3. Oommen Chandy 4. E.K. Nayanar 5. A.K. Antony
Which of the following indicates the correct order of leaders who completed tenure as the Chief Minister of Kerala?
(a) 1,2,3,4,5 (b) 1,4,2,3
(c) 1,2,3,5 (d) 1,3,4,5
23. The ruler of Kochi who introduced a regular administrative machinery for the first time:
(a) Ravi Varma
(b) Pareekshithu Thampuran
(c) Sakthan Thampuran
(d) Marthanda Varma
24. The leader who exhorted the women of Kerala in 1931 to boycott temples as they had to remove upper cloths during festival seasons as part of some rituals:
(a) T.K. Madhavan
(b) K. Kelappan
(c) Sree Narayana Guru
(d) Mannath Padmanabhan
25. The oldest teak plantation in the world, Conolly's plot is situated in the district of:
(a) Kannur
(b) Kozhikode
(c) Thrissur
(d) Malappuram
26. "One caste, One religion and One God for man of the same blood and form, there is no difference animals of the same caste alone procreate Viewed thus all humanity belong to one caste" - In which book of Sree Narayana Guru these words can be seen?
(a) Darshanamala
(b) Jati Mimamsa
(c) Daivadasakam
(d) Nirvritipanchakam
27. Consider the following statements.
1. Travancore entered into Subsidiary alliance with the British
2. Raja Kesavadas was the Dewan of Travancore when Tipu Sultan invaded Travancore
3. Marthanda Varma defeated the Dutch forces with the help of Raja Kesavadas
4. The Title Raja was given to Kesava Pillai by Dharma Raja
Which of the following statements given above is/are correct?
(a) 1,2,3 and 4 (b) 1,2,4
(c) 1 and 2 (d) 2 and 4
28. The world rises from love/ And attains progress with love,/ Love is itself the power of the world,/ Love brings happiness to all;/ Love is life itself, sir,/ And Love's absence is death -The work of Kumaranasan which depicts the sacredness of love:
(a) Chandalabhikshuki

- (b) Karuna
(c) Veenapoovu
(d) Nalini
29. Which type of soil are mainly seen in the midland region of Kerala?
(a) Black soil
(b) Alluvial
(c) Laterite
(d) Cotton soil
30. Who was appointed by the Government of Travancore in 1934 to examine the matter of appointment to posts under Government Service:
(a) G.D. Knox
(b) Monroe
(c) Habibulla
(d) C.P. Ramaswamy Iyer
31. Space missions would most likely be controlled and monitored by what type of system?
(a) Super computer
(b) Main frame
(c) Mini computer
(d) Micro computer
32. Which of the following is a program that uses a variety of different approaches to identify and eliminate spam?
(a) Directory search
(b) Anti spam program
(c) Web server
(d) Web store front
33. Programs from the same developer, sold bundled together, that provide better integration and share common features, tool bars and menus are known as:
(a) Software suites
(b) Integrated software packages
(c) Software processing packages
(d) Personal information managers
34. What is the full form of USB?
(a) Universal Security Block
(b) Ultra Serial Block
(c) United Service Block
(d) Universal Serial Bus
35. What is the most common way to get a virus in your computer's hard disk?
(a) By installing games from their CD-ROMS
(b) By uploading pictures from mobile phones
(c) By opening e-mails
(d) By sending e-mails
36. Which one of the following works as bioindicator of environmental pollution?
(a) Diatoms
(b) Fish
(c) Coral reefs
(d) Lichens
37. 'Gadgil Committee Report' and 'Kasturi Rangan Committee Report' some times seen in the news, are related to:
(a) Constitutional reforms
(b) Ganga Action Plan
(c) Linking rivers
(d) Protection of Western Ghats
38. Which one of the following is a side effect of Green Revolution?
(a) Environmental pollution
(b) Deterioration of biodiversity
(c) Increasing of acidity of soil
(d) All of these
39. The bird 'Dodo' is:
(a) Endangered
(b) Critically endangered
(c) Rare
(d) Extinct
40. What is main peculiarity of 'hot spot'?
(a) Rarity
(b) Endemism
(c) Diversity
(d) Critically endangered population
41. What percent of the global area is occupied by India?
(a) 0.57
(b) 2.42
(c) 3.1
(d) 1.42
42. Deogarh Fort is in:
(a) Karnataka
(b) Uttar Pradesh
(c) Rajasthan
(d) Madhya Pradesh
43. Rivers originate in the Manasarovar region:
(a) Ganga, Yamuna, Hoogly
(b) Godavari, Krishna, Kaveri
(c) Indus, Sutlej, Brahmaputra
(d) Narmada, Tapti, Beas
44. In which part of India, Patkai ranges situated?
(a) Western
(b) Eastern
(c) Southern
(d) Northern
45. In which of the following regions of India are shale gas resources are found?
1. Cambay basin
2. Cauvery basin
3. Krishna-Godavari basin
Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

46. 'Mitra Shakti 2017' was held Aundh Military Station in Pune, Maharashtra. It was a joint military training exercise between India and
- (a) Sri Lanka
 - (b) Maldives
 - (c) Bhutan
 - (d) Nepal
47. Consider the following statements:
1. Nirmala Sitharaman was born in Tamil Nadu
 2. Nirmala Sitharaman is also a Rajya Sabha Member from Tamil Nadu
 3. Nirmala Sitharaman has also served as a member of the National Commission for Women.
 4. Nirmala Sitharaman has formerly served as the Minister of State for Finance and Corporate Affairs under the Ministry of Finance and the Minister for Commerce and Industry with independent charge.
- Which of the following statements given above is/are correct?
- (a) 1,2,3 and 4
 - (b) 1,3 and 4
 - (c) 1,2,3
 - (d) 2,3 and 4
48. The nationality of Richard H. Thaler who has won 2017 Nobel Prize in Economic Sciences for his contributions to behavioural economics.
- (a) Sweden
 - (b) Norway
 - (c) U.S.A.
 - (d) Russia
49. Consider the following statements:
1. Gujarat, Madhya Pradesh, Maharashtra and Rajasthan receive water and electricity supplied from the Sardar Sarovar Dam.
 2. The foundation stone of the Sardar Sarovar project was laid out by Prime Minister Jawaharlal Nehru in 1961.
 3. The Sardar Sarovar dam was inaugurated by President Ram Nath Kovind on September 17, 2017.
 4. Sardar Sarovar dam is the largest dam in the world.
- Which of the following statements given above is/ are correct?
- (a) 1,2,3 and 4
 - (b) 1,2 and 3
 - (c) 1 and 2
 - (d) 1,3 and 4
50. What is the track gauge of Kochi Metro?
- (a) 1000 mm
 - (b) 1676 mm
 - (c) 1435 mm
 - (d) 1520 mm
51. The Commission found that ----- of the land was encroached on.
- (a) few
 - (b) a few
 - (c) much
 - (d) many
52. Everybody had breakfast, -----
- (a) hadn't they?
 - (b) didn't they?
 - (c) did you?
 - (d) had they?
53. How cleverly she ----- his charges against her!
- (a) denied
 - (b) rebutted
 - (c) repudiated
 - (d) refused
54. No-one has heard from him since -----
- (a) he has left India
 - (b) he had left India
 - (c) he left India
 - (d) he will have left India.
55. ---- year was he born in?
- (a) which
 - (b) when
 - (c) in which
 - (d) what
56. What do you want me to talk -----?
- (a) upon
 - (b) to
 - (c) about
 - (d) at
57. I wouldn't agree to the suggestion if I ---- you.
- (a) was
 - (b) were
 - (c) had been
 - (d) am
58. In which part of the sentence is the error?
- (a) Always he complains
 - (b) about the quality of food
 - (c) served to him.
 - (d) No error
59. The new car was recalled because of a mechanical -----.
- (a) mistake
 - (b) error
 - (c) blunder
 - (d) defect
60. The word nearest in meaning to the word 'exonerate' is ----
- (a) acquit
 - (b) accuse

(c) expel

(d) free

61. The opposite of 'ebb' is ----

(a) expand

(b) flow

(c) contract

(d) float

62. One word for 'wrong use of a name, word or description' is ----

(a) misfit

(b) misdemeanour

(c) misnomer

(d) misquote

63. The political leader impressed his followers by his gift of the gab. 'Gift of the gab' means:

(a) power of eloquence

(b) attractive cloth

(c) immense wealth

(d) honesty and integrity

64. --- cricket is a very popular game in India.

(a) the

(b) a

(c) an

(d) No article

65. The firemen ----- the fire in the factory.

(a) put off

(b) put out

(c) put on

(d) put up

66. The Indirect Speech of 'We called in the police' is:

(a) The police was called in.

(b) The police was being called in.

(c) The police were called in.

(d) The police are called in.

67. I can't start the car because the battery has ----.

(a) gone off

(b) run up

(c) worn off

(d) run down

68. He is a dangerous criminal, who ought to be ----.

(a) shut up

(b) locked up

(c) put up

(d) tied up

69. He confessed ---- the crime following persistent questioning.

(a) to

(b) of

(c) on

(d) about

70. Complete the proverb:

'Too many cooks -----'.

(a) spill the milk

(b) spoil the food

(c) spoil the broth

(d) spoil the taste

71. തെറ്റില്ലാത്ത പ്രയോഗം ഏത്

(a) ഇതികർത്തവ്യമൂഢൻ

(b) ഇതികർത്തവ്യതാമൂഢൻ

(c) ഇതികർത്തവ്യാമൂഢൻ

(d) ഇതികർത്തവ്യകമൂഢൻ

72. പ്രസാദം എന്നാൽ സന്തോഷം എന്നർത്ഥം:

പ്രാസാദം എന്നാൽ

(a) അനുഗ്രഹം

(b) വേർപാട്

(c) മാളിക

(d) പ്രസന്നത

73. വിവൃതം എന്ന പദത്തിന്റെ വിപരീതം

(a) ആവൃതം

(b) സംവൃതം

(c) പ്രാവൃതം

(d) വൃതം

74. മക്കളില്ലാത്ത അവസ്ഥ - എന്ന അർത്ഥമുള്ള പദം

(a) അനപത്യത

(b) അനന്യത

(c) അപൂത്രകം (d) അപാർത്ഥിവം

75. കരിമ്പൂലി - എന്ന പദം പിരിച്ചെഴുതുന്നത്

(a) കരിം + പൂലി

(b) കരിൻ + പൂലി

(c) കരി + പൂലി (d) കറുത്ത + പൂലി

76. വിദ്വാൻ - എന്ന പദത്തിന്റെ സ്ത്രീലിംഗം

(a) വിദ്വതി

(b) വിദ്വാനി

(c) വിദ്വാൻത്തി (d) വിദ്വഷി

77. ശരിയായ പ്രയോഗം ഏത്

(a) അപകർഷബോധം

(b) അപകർഷതാബോധം

(c) അപകർഷകബോധം

(d) അപകർഷകതാബോധം

78. ശരിയായ വാക്യം ഏത്

(a) മാതൃഭാഷയായ മലയാളം മാത്രമാണ് ഇനി കേരളത്തിലെ ഏക ഔദ്യോഗികഭാഷ.

(b) മാതൃഭാഷയായ മലയാളം മാത്രമാണ് കേരളത്തിലുള്ള ഇനി ഏക ഔദ്യോഗിക ഭരണഭാഷ.

(c) മാതൃഭാഷ മലയാളം മാത്രമാണ് ഇനി കേരളത്തിലെ ഔദ്യോഗികഭാഷ.

(d) മാതൃഭാഷയായ മലയാളം മാത്രമാണ് ഇനി കേരളത്തിലുള്ള ഏക ഔദ്യോഗിക ഭാഷ.

79. കള്ളിവെളിച്ചത്താവുക - എന്ന ശൈലിയുടെ അർത്ഥമുള്ള പ്രയോഗമേത്

(a) Live from hand to mouth

(b) Let the cat out of the bag

(c) Keeping the wolf from the door

(d) Left handed compliment

80. The love of money is the root of all evil എന്ന അർത്ഥമുള്ള പഴഞ്ചൊല്ല്

(a) പണമെന്നു പറഞ്ഞാൽ പിണവും വാപി ഉൾക്കും

(b) പണത്തിനുമീതെ പരുന്തും പറക്കില്ല

(c) ഇതറ്റം പെരുക്കിൽ ഇമ്പം നശിക്കും

(d) പണം പന്തലിൽ കുലം കുപ്പയിൽ

81. Find out the set among the four sets which is

- like the set (9, 27, 108)
 (a) 15, 45, 90
 (b) 8, 32, 96
 (c) 5, 15, 95
 (d) 11, 33, 132
82. In a certain code language BRIGHT is written as JSCSGF. How is JOINED written in that language?
 (a) JPKCDM
 (b) JPKMCD
 (c) JPKDMD
 (d) JKPCMD
83. If the day before yesterday was Saturday what day will fall on the day after tomorrow?
 (a) Tuesday (b) Wednesday
 (c) Monday (d) Thursday
84. The letters L, M, N, O, P, Q, R, S and T in their order are substituted by nine integers 1 to 9 in that order. 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N?
 (a) 4 (b) 5
 (c) 6 (d) 7
85. If $P + Q$ means 'P is the father of Q', $P \times Q$ means 'P is the brother of Q', $P - Q$ means 'P is the mother of Q', then which of the following is definitely true about $C - A + B$?
 (a) B is the father of A
 (b) B is the son of A
 (c) C is the mother of B
 (d) A is the son of C
86. What is the angle between the minute hand and hour hand of a clock at half past two?
 (a) 105° (b) 165°
 (c) 60° (d) 85°
87. Poster : Wall :: Photograph : ?
 (a) Negative (b) Film
 (c) Frame (d) Camera
88. A mother was 4 times as old as his son 8 years ago. Eight years hence, mother will be twice as old as his son. Then the present age of the son is
 (a) 8 (b) 16
 (c) 12 (d) 9
89. $MK : \frac{169}{121} :: JH : ?$
 (a) $\frac{100}{64}$ (b) $\frac{100}{21}$
 (c) $\frac{21}{100}$ (d) $\frac{64}{100}$
90. A man pointing to a photograph says, "The lady in the photograph is my nephew's maternal grand mother." How is the lady in the photograph related to the man's sister who has no other sister?
 (a) sister in law (b) cousin
 (c) mother in law (d) mother
91. $0.7 \times 0.7 \times 0.7 + 3 \times 0.3 \times 0.3 \times 0.3 + 3 \times 0.7 \times 0.3 =$
 (a) 0.73 (b) 1
 (c) 2 (d) 1.35
92. At 8'O clock in the morning Mr. Sherin was at a distance of 105 km from the railway station. To get his train he was to reach the station at least at 9.45 am. The minimum speed required for him to travel in order to get the train is
 (a) 60 km/hr (b) 54 km/hr
 (c) 68 km/hr (d) 45 km/hr
93. A sum of 53 is divided among A, B and C such that A gets 7 more than B and B gets 8 more than C. The ratio of their shares is:
 (a) 25 : 18 : 5 (b) 18 : 25 : 10
 (c) 25 : 18 : 10 (d) 2 : 3 : 5
94. Find the compound interest on Rs. 10,000 at 8% per annum for 2 years and 3 months.
 (a) ₹ 2246.42 (b) ₹ 1897.28
 (c) ₹ 1927.43 (d) ₹ 2141.5
95. Raju can complete a work in 10 days. Ramu is 25% more efficient than Raju and Vivek is 60% more efficient than Ramu. Working together, how long would they take to finish the job?
 (a) $4\frac{5}{8}$ days (b) $5\frac{5}{8}$ days
 (c) $2\frac{6}{17}$ days (d) $3\frac{6}{17}$ days
96. Milk and water are in the ratio of 3:2 in mixture of 80 liters. How much water should be added so that the ratio of the milk and water becomes 2:3?
 (a) 20 liters (b) 30 liters
 (c) 35 liters (d) 40 liters
97. If the circumference and the area of a circle are numerically equal, then what is the numerical value of the diameter?
 (a) 2 (b) 4
 (c) 3 (d) 5
98. $5^{2n+1} = 15625$ then $n =$
 (a) 2.5 (b) 3.5
 (c) 4 (d) 5.7
99. If the selling price of 12 articles is equal to the cost price of 18 articles, what is the profit percentage?
 (a) 25% (b) 30%
 (c) 50% (d) 65%
100. If $5^2 \times 5^4 \times 5^6 \times \dots \times 5^{2n} = (0.04)^{-28}$ then the value of n is
 (a) 4 (b) 5
 (c) 6 (d) 7

Answers with Explanation

81. (d)

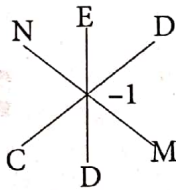
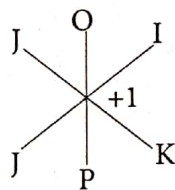
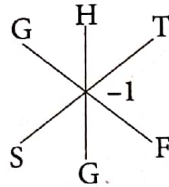
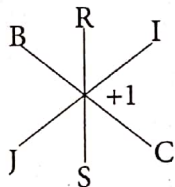
$$9 \times 3 = 27, 27 \times 4 = 108$$

$$\text{similarly } 11 \times 3 = 33$$

$$33 \times 4 = 132$$

similar set is (11, 33, 132)

82. (a)



83. (b)

If the day before yesterday was Saturday, then today is Monday. Thus tomorrow will be Tuesday and day after tomorrow will be Wednesday.

84. (c)

$$\begin{array}{l|l} P=4 & T-N=3 \\ T-P=5 & 9-N=3 \\ T-4=5 & 9-3=N \\ T=5+4=9 & N=6 \end{array}$$

85. (d)

'C-A+B' means C is the mother of A, who is the father of B. This clearly implies that A is male hence the son of C.

86. (a)

Time: 2.30

Angle between the minute hand and hour hand of a clock = $30H - \frac{11}{2}M$

Here, $H=2, M=30$

$$30H - \frac{11}{2}M = 30 \times 2 - \frac{11}{2} \times 30$$

$$= 60 - 165 = -105$$

$$\text{Angle} = 105^\circ$$

87. (c)

Poster is fixed at wall similarly photograph is fixed in frame

88. (b)

8 years ago son's age = x

8 years ago Mother's age = $4x$

8 year hence

$$\text{Son's age} = (x+8)+8=x+16$$

$$\text{Mother's age} = (4x+8)+8=4x+16$$

$$4x+16 = 2(x+16)$$

$$4x+16=2x+32$$

$$4x-2x=32-16=16$$

$$2x=16$$

$$x = \frac{16}{2} = 8$$

$$\text{Present age of son} = x+8 = 8+8=16$$

89. (a)

M and K are 13th and 11th letters of English alphabet respectively.

$$\text{And } \frac{13^2}{11^2} = \frac{169}{121}$$

Similarly J and H are 10th and 8th letters of the English alphabet. And $\frac{10^2}{8^2} = \frac{100}{64}$

90. (d)

The lady is the grand mother of man's sister's son. ie, the mother of the mother of man's sister's son. ie, the mother of man's sister. Hence the answer is d.

91. (b)

$$a^3+b^3+3ab(a+b)=(a+b)^3$$

$$0.7 \times 0.7 \times 0.7 + 0.3 \times 0.3 \times 0.3 + 3 \times 0.7 \times 0.3$$

$$= (0.7)^3 + (0.3)^3 + 3 \times 0.7 \times 0.3(0.7+0.3)$$

$$= (0.7+0.3)^3 = 1^3 = 1$$

92. (a)

Distance = 105km

$$\text{Time} = 1\frac{3}{4} \text{ hours} = \frac{7}{4} \text{ hours}$$

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}} = \frac{105}{\frac{7}{4}} = 105 \times \frac{4}{7} = 60 \text{ km/hr}$$

93. (c)

Given that

$$A = B + 7 \text{ --- (1)}$$

$$B = C + 8 \text{ --- (2)}$$

Substituting

(2) in (1)

$$A = C + 8 + 7$$

$$A = C + 15 \text{ --- (3)}$$

$$B = C + 8 \text{ --- (4)}$$

$$A + B + C = 53$$

$$C + 15 + C + 8 + C = 53$$

$$3C + 23 = 53$$

$$3C = 53 - 23 = 30$$

$$C = \frac{30}{3} = 10$$

$$B = C + 8 = 10 + 8 = 18$$

$$A = C + 15 = 10 + 15 = 25$$

$$A : B : C = 25 : 18 : 10$$

94. (b) $P = 10000, n = 2\frac{1}{4}$, years is given by

$$A = P \left(1 + \frac{r}{100}\right)^2 \left(1 + \frac{(\frac{1}{4})r}{100}\right)$$

$$= 10000 \left(1 + \frac{8}{100}\right)^2 \left(1 + \frac{(\frac{1}{4}) \times 8}{100}\right)$$

$$= 10000 \times \frac{108}{100} \times \frac{108}{100} \times \frac{102}{100}$$

$$= 11897.28$$

$$= A - P$$

$$= 11897.28 - 10000 = 1897.28$$

95. (c)

$$\text{Raju's 1 day work} = \frac{1}{10}$$

$$\text{Ramu's 1 day work} = \frac{1}{10} \times \frac{125}{100} = \frac{1}{8}$$

$$\text{Vivek's 1 day work} = \frac{1}{8} \times \frac{160}{100} = \frac{1}{5}$$

$$\text{Total work} = \frac{1}{10} + \frac{1}{8} + \frac{1}{5} = \frac{34}{80} = \frac{17}{40}$$

$$\text{Total days} = \frac{40}{17} = 2\frac{6}{17} \text{ days}$$

96. (d)

$$\text{Quantity of milk in the mixture} = 80 \times \frac{3}{5} = 48 \text{ Litres}$$

$$\text{Quantity of water in the mixture} = 80 \times \frac{2}{5} = 32 \text{ Litres}$$

Let x litres of water be added in the mixture, so that

$$\frac{48}{32+x} = \frac{2}{3}$$

$$144 = 64 + 2x$$

$$2x = 144 - 64 = 80$$

$$x = 40$$

97. (b)

$$2\pi r = \pi r^2$$

$$2r = r^2$$

$$2 = r$$

$$\text{Diameter} = 2r = 2 \times 2 = 4 \text{ cm.}$$

98. (a)

$$5^{2n+1} = 15625$$

$$5^{2n+1} = 5^6$$

$$2n+1 = 6$$

$$2n = 6 - 1 = 5$$

$$n = \frac{5}{2} = 2.5$$

$$\begin{array}{r} 5 \overline{)15625} \\ 5 \overline{)3125} \\ 5 \overline{)625} \\ 5 \overline{)125} \\ 5 \overline{)25} \\ 5 \end{array}$$

99. (c)

If the cost price of an article is equal to the selling price of an article, then profit %

$$= \frac{m-n}{n} \times 100$$

$$m = 18$$

$$n = 12$$

$$\text{Profit \%} = \frac{18-12}{12} \times 100 = \frac{6}{12} \times 100 = 50\%$$

100. (d)

$$5^2 \times 5^4 \times 5^6 \dots \times 5^{2n} = (0.04)^{-28}$$

$$5^{2+4+6+\dots+2n} = \left(\frac{4}{100}\right)^{-28}$$

$$5^{n(n+1)} = \left(\frac{1}{25}\right)^{-28} = \left(\frac{1}{5^2}\right)^{-28}$$

$$= (5^{-2})^{-28} = 5^{56}$$

$$5^{n(n+1)} = 5^{56}$$

$$n(n+1) = 56$$

$$7 \times 8 = 56$$

$$\therefore n = 7$$

Answers

1.(c)	2.(d)	3.(a)	4.(d)	5.(d)
6.(a)	7.(b)	8.(a)	9.(c)	10.(d)
11.(d)	12.(d)	13.(c)	14.(c)	15.(d)
16.(d)	17.(d)	18.(b)	19.(a)	20.(b)
21.(d)	22.(b)	23.(c)	24.(d)	25.(d)
26.(b)	27.(c)	28.(a)	29.(c)	30.(a)
31.(a)	32.(b)	33.(a)	34.(d)	35.(c)
36.(d)	37.(d)	38.(d)	39.(d)	40.(b)
41.(a)	42.(d)	43.(c)	44.(b)	45.(d)
46.(a)	47.(b)	48.(c)	49.(c)	50.(c)
51.(c)	52.(b)	53.(b)	54.(c)	
55.(d)	56.(c)	57.(b)	58.(a) (He always complains...-)	
62.(c)	63.(a)	64.(d)	65.(b)	66.(c)
67.(d)	68.(b)	69.(a)	70.(c)	
71.(b)	72.(c)	73.(b)	74.(a)	75.(c)
76.(d)	77.(a)	78.(c)	79.(b)	80.(c)
81.(d)	82.(a)	83.(b)	84.(c)	85.(d)
86.(a)	87.(c)	88.(b)	89.(a)	90.(d)
91.(b)	92.(a)	93.(c)	94.(b)	95.(c)
96.(d)	97.(b)	98.(a)	99.(c)	100.(d)

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