NTPC CBT-II 2016 Official Paper (Held On: 17 Jan, 2017 Shift 2) (Previous Year Paper)

RRB NTPC • 2016 • 120 questions • 90 minutes • Answer key and solutions

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/rrb-ntpc/ntpc-cbt-ii-2016-official-paper-held-on-17-jan-2017-shift-2-previ…

Scan the QR code or click the link to open it.

FULL TEST

Q1. _____ entered the Guinness World Records for recording the highest number of songs in several languages.

(a) Shankar Mahadevan
(b) Sameer Anjaan
(c) P. Susheela
(d) Kavita Krishnamurthy

Q2. Space research does NOT include the discipline _____.

(a) Human culture
(b) Physics
(c) Biology
(d) Earth science

Q3. A question and three statements labeled (I), (II), and (III) are given. You have to decide which statement(s) is/are sufficient to answer the question.

How many people are in the queue?

Statements :

I. A man is 3^(rd) from the beginning of the queue.

II. A man is 20^(th) from the center of the queue.

III. A man is 7^(th) from the end and 17th from the beginning.

(a) Only statement II is sufficient.
(b) Only statement I is sufficient.
(c) Data inadequate.
(d) Only statement III is sufficient.

Q4. Chlorofluorocarbons are not used in _____.

(a) Refrigerators
(b) Mixer and grinders
(c) Aerosol sprays
(d) None of these

Q5. Complete the analogy -

Illiterate : Educated :: Flood :

(a) Rain
(b) Drought
(c) Well
(d) River

Q6. Archery is the national sport of which one of the following countries?

(a) Turkey
(b) China
(c) Bhutan
(d) Japan

Q7. Choose the best option and fill up the blank:

'Ethnic' group of people, more appropriately, refers to people with a _____

(a) same behavior
(b) Shared culture
(c) same genetic identity
(d) same nationality

Q8. Which one of the following statements is incorrect?

(a) Rational numbers do not include fractions.
(b) Real numbers which are not rational must be irrational.
(c) A real number is unique.
(d) Real numbers can be added, subtracted, multiplied or divided.

Q9. MS Word is an example of :

(a) Application Software
(b) Compiler
(c) Operating System
(d) System Software

Q10. Arrange the numbers in descending order :

$3\sqrt{5}, 2\sqrt{8}, 4\sqrt{6}$

(a) $4\sqrt{6} < 2\sqrt{8} < 3\sqrt{5}$
(b) $2\sqrt{8} > 4\sqrt{6} > 3\sqrt{5}$
(c) $4\sqrt{6} > 3\sqrt{5} > 2\sqrt{8}$
(d) $2\sqrt{8} > 3\sqrt{5} < 4\sqrt{6}$

Q11. X is the son of W and W is the brother of V. V is the sister of U. How is U related to X?

(a) Cannot be determined
(b) Father
(c) Mother
(d) Sister

Q12. St. Peter's Square is located in which of the following places?

(a) Athens
(b) Berlin
(c) Washington
(d) Vatican City

Q13. FDI stands for :

(a) Federal Department of Investment
(b) Forest Development Index
(c) Federal Department of Investigation
(d) Foreign Direct Investment

Q14. 17^(th) Sumit of the Non-Aligned Movement (NAM) was held in Venezuela with the slogan :

(a) United for Peace and Harmony
(b) United on the Path for Peace
(c) United on the Path of Global Peace
(d) United on the Path for Sustainable Peace

YourMockTest.com — Free Study Material

Q15. A statement followed by some conclusions are given below.

Statement: All drugs have side effects. So, there is always a built-in risk while taking medicines.

Conclusions :

I. No medicine is without the risk of side effects.

II. Drugs make things worse than the disease itself.

Find which of the given conclusions logically follows from the given statement.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Neither I nor II follows
(d) Both I and II follow

Q16. Which one of the following has a terminating decimal expansion?

(a) 1/6
(b) 17/25
(c) 10/3
(d) 1/11

Q17. In science, which of the following is the property of a mixture?

(a) The constituents of a mixture retain their physical properties
(b) It have fixed melting and boiling point
(c) It cannot be separated by physical methods
(d) Its composition is fixed

Q18. If LOGIC is written as IGCOL, then FRUIT is written as _____

(a) TRFIU
(b) RFTIU
(c) UTRFI
(d) IUTRF

Q19. Replace the * signs in 25*5*35*20*2 with mathematical signs and find out which of the following options will give a balanced equation :

(a) = × ÷ +
(b) • = × ÷
(c) ÷ + = ×
(d) × ÷ + =

Q20. _____ was the recipient of the Nobel Prize in Literature 2015.

(a) Paul Modrich
(b) Svetlana Alexievich
(c) William C. Campbell
(d) Takaaki Kajita

Q21. Simplify :

$1 \div [\{p^2/(p + 6)\} + \{6p/(p + 6)\}]$

(a) 1/p
(b) 1/((p + 6))
(c) p + 6
(d) p

Q22. [(169 × 121) ÷ (11 × 13)] - 3 = ?

(a) 135
(b) 140
(c) 137
(d) 143

Q23. if tan θ = 1/(√5), $cosec^2\theta$ = ?

(a) 5
(b) √5
(c) √3
(d) 6

Q24. Gaurav Ghei is an Indian _____.

(a) Wrestler
(b) Boxer
(c) Golfer
(d) Badminton player

Q25. The Indian Railway Board Act was passed in the year :

(a) 1905
(b) 1890
(c) 1937
(d) 1966

Q26. Choose the most appropriate description :
National Bank for Agriculture and Rural Development is a _____.

(a) Development Bank
(b) Commercial Bank
(c) Small and Medium Enterprise
(d) Supervisory Institution

Q27. Lala Lajpat Rai hailed from _____

(a) Uttar Pradesh
(b) Andhra Pradesh
(c) Punjab
(d) West Bengal

Q28. Ben Kingsley is associated with _____

(a) Pop Music
(b) Space travel
(c) Scientific research
(d) Motion pictures

Q29. G and H can do a work in 30 days. If H alone can do it in 50 days, then G alone can do it in _____ days.

(a) 75
(b) 70
(c) 60
(d) 65

Q30. Two varieties of rice, A and B, costing Rs. 210 and Rs. 280 per kg respectively are mixed in the ratio of 3 : 4. The mixed variety is sold at Rs. 260 per kg. What is the profit percentage?

(a) 6%
(b) 5%
(c) 32%
(d) 4%

Q31. B is the only son of C who has no daughter. K is the wife of the grandson of C. What is B to K?

(a) Brother
(b) Father
(c) Father-in-law
(d) Son

YourMockTest.com — Free Study Material

Q32. Akbar's seat of Government was _____.

(a) Allahabad
(b) Lucknow
(c) Delhi
(d) Agra

Q33. A circular ground of radius 7 m is surrounded by a path of width 3.5 m. Find the area of the path. (π = 22/7)

(a) 202 sq.m
(b) 154 sq.m
(c) 192.5 sq.m
(d) 346.5 sq.m

Q34. P, Q and R can do a work in 10, 15 and 30 days respectively. P works daily. Q and R together join P on alternate days starting the first day. In how many days will the work be done?

(a) 61/3
(b) 63/4
(c) 61/2
(d) 6

Q35. Find the missing letter (?) in the series :

B, Z, W, S, N, ?

(a) J
(b) G
(c) H
(d) I

Q36. What is the fourth proportional to 14, 6, 28 ?

(a) 12
(b) 3
(c) 7
(d) 6

Q37. Complete the analogy.

CD : GA : : PQ : ?

(a) SM
(b) SN
(c) US
(d) TN

Q38. Which of the following species are NOT in the IUCN classification of threatened species?

(a) Harmful
(b) Extinct
(c) Vulnerable
(d) Endangered

Q39. The simple interest on a sum deposited at 8% p.a. for 8 years is Rs. 16,000. What will be the compound interest on the same sum at one fourth of the above rate of interest for 2 years?

(a) Rs. 1,020
(b) Rs. 980
(c) Rs. 1,010
(d) Rs. 1,015

YourMockTest.com — Free Study Material

Q40. Study the given statements and select the appropriate answer option based on them.

Statements :

I. V is not shorter than A.

II. D is shorter than V.

III. A is shorter than D.

(a) D is shorter than A
(b) A is shorter than V and D
(c) A is taller than V
(d) D is shorter than A and V

Q41. Which one of the following best describes the term 'capital gains tax' in India?

(a) Tax on dividend received from corporate bonds.
(b) Tax on profit from the sale of a capital asset during a year.
(c) Tax on interest received from bank fixed deposits.
(d) Tax on profit from sale of shares held for more 12 months.

Q42. D can do a work in 18 days and E can do the same work in half that time. How many days will they take to finish the work, doing it together?

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

Q43. 15 laptops were purchased at Rs. 15,000 each and all of them were sold for Rs. 2.97 Lakh. Find the profit percentage.

(a) 28%
(b) 40%
(c) 33.33%
(d) 32%

Q44. In which year, did Mahatma Gandhi return to India from South Africa?

(a) 1905
(b) 1920
(c) 1915
(d) 1910

Q45. An amount is deposited at 8% p.a. compound interest. If the first year interest is Rs. 72, find the interest amount for the 2^(nd) year.

(a) Rs. 77.56
(b) Rs. 77.64
(c) Rs. 77.76
(d) Rs. 85.77

Q46. Complete the analogy.

Grief : Happiness : : Diffidence :

(a) Ignorance
(b) Sorrow
(c) Confidence
(d) Cowardice

Q47. N has Rs. p more than K. The total amount available with N and K together is Rs. q. How much does K have?

(a) q/2 + p
(b) 2(p + q)
(c) ((p + q))/2

YourMockTest.com — Free Study Material

(d) ((q - p))/2

Q48. Find the value of 'x' in x : 3/7 : : 7/9 : 5/9

(a) 4/7
(b) 3/2
(c) 3/5
(d) 9/7

Q49. Find the mode of the following data :
70, 80, 65, 90, 70, 90, 80, 70, 75, 65

(a) 90
(b) 80
(c) 70
(d) 65

Q50. Find the missing term (?) in the alphabetical series :
AC, DG, HL, ?, SY, ...

(a) NQ
(b) NR
(c) MQ
(d) MR

Q51. (1 + 2/3) ÷ [(1 + 1/3) ÷ (2/3 + 1)] = ?

(a) 4/3
(b) 3/4
(c) 12/25
(d) 25/12

Q52. Which one of the following is not an Omnivores?

(a) Rat
(b) Ant
(c) Bear
(d) Snake

Q53. If P :Q : R is 1/3 : 2/3 : 1/4 and Q = 56, then P - R = ?

(a) 5
(b) 8
(c) 6
(d) 7

Q54. 'Mission Raftaar' project is associated with:

(a) Air transport
(b) Road transport
(c) Water transport
(d) Rail transport

Q55. _____ cannot be corrected with spectacles.

(a) Presbyopia
(b) Hypermetropia
(c) Cataract
(d) Myopia

Directions

In a district, there are four electoral constituencies. Four political parties put up their candidates. The number of votes polled by each party, in thousands, is given below.

YourMockTest.com — Free Study Material

Constituency	Party I	Party II	Party III	Party IV
East	180	74	5	34
South	8	70	108	210
North	72	275	44	225
West	19	23	101	191

Q56. By how many more votes, did party IV win South constituency than the next highest party?

(a) 0.7 Lakh
(b) 1.02 Lakh
(c) 1.08 Lakh
(d) 2.10 Lakh

Q57. Which party won more than one constituency in the district?

(a) Party I
(b) Party II
(c) Party III
(d) Party IV

Q58. Which constituency has the highest total number of votes polled?

(a) West
(b) North
(c) East
(d) South

Q59. Which party polled the highest number of votes in all the districts?

(a) Party II
(b) Party I
(c) Party III
(d) Party IV

Directions

Six persons P,Q,R,S,T and U follow different professions. There is a politician, an actor, a banker, an ex-serviceman, a nurse and a housewife. Consider the following information and answer the questions based on it.

1. R is the ex-serviceman married to a housewife.
2. Q is an actor whose brother T is not a politician.
3. U is neither a banker nor a politician.
4. P is the wife of R.

Q60. Who is the banker?

(a) R
(b) T
(c) Q
(d) P

Q61. Who is the politician?

(a) S
(b) U
(c) T
(d) R

YourMockTest.com — Free Study Material

Q62. Who is the nurse?

(a) P
(b) T
(c) U
(d) S

Q63. The first pair of words has a certain relation. Find the word with the same relation to complete the next pair.

River : Bank : : Sea : ?

(a) Shore
(b) Creek
(c) Bay
(d) Sand

Q64. Which one of the following is not a children welfare scheme?

(a) Inclusive education for the disabled at secondary stage
(b) Sarva Shiksha Abhiyan
(c) Swayamsiddha
(d) Right to Education

Q65. A man buys a refrigerator at Rs. 22,000 and pays an additional Rs. 1,000 for transport and Rs. 2,000 for installation. What should be the selling price to get a profit of 15% on the whole transaction?

(a) Rs. 27,250
(b) Rs. 28,500
(c) Rs. 28,750
(d) Rs. 29,250

Q66. What do we call those who study the Earth and its land, features and inhabitants, as?

(a) Historians
(b) Farmers
(c) Geographers
(d) Biographers

Q67. Find the HCF of 143, 77 and 121.

(a) 6
(b) 11
(c) 4
(d) 7

Q68. Find the incorrect number in the series :

6, 11, 16, 20, 26

(a) 20
(b) 6
(c) 26
(d) 16

Q69. Which one of the following is not an energy converter?

(a) Solar panel
(b) Steam engine
(c) Plain glass
(d) Electric iron

Q70. Find the LCM of 24, 96 and 36.

(a) 576
(b) 216
(c) 288

YourMockTest.com — Free Study Material

(d) 144

Q71. CD-ROM is a _____.

(a) MP3 file
(b) Microprocessor
(c) Magnetic disk
(d) Storage medium

Q72. A lady said, "Sonia is the daughter of the only daughter of my father." How is the lady related to Sonia?

(a) Mother
(b) Daughter
(c) Sister
(d) Grandmother

Q73. _____ was NOT declared a World Heritage site by UNESCO.

(a) Matheran Hill Railway
(b) Darjeeling Himalayan Railways
(c) Kalka Shimla Railway line
(d) Nilgiri Mountain Rail

Q74. If a political party is treated as a recognised political party in _____ or more States, it shall be known as a 'National Party' throughout the whole of India

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

Q75. An assertion (A) and a reason (R) are given below.

Assertion (A) : Nowadays, more people opt for fast food.

Reason (R) : Fast food is always inexpensive.

(a) Both A and R true, but R is not the correct explanation of A
(b) A is false, but R is true
(c) A is true, but R is false
(d) Both A and R are true and R is the correct explanation of A

Q76. Who was selected as the captain for the Men's ICC World T20 XI 2016?

(a) M. S. Dhoni
(b) Darren Sammy
(c) Shane Watson
(d) Virat Kohli

Q77. Complete the analogy.

If ADC = 12, BEC = ?

(a) 30
(b) 28
(c) 24
(d) 18

Q78. Rearrange the jumbled letters to make a meaningful English word and then select the word which is different from the rest.

(a) AFMR
(b) NDAL
(c) PLCA
(d) TLPNA

YourMockTest.com — Free Study Material

Q79. The simple interest at R % p.a. on a certain principal P is (9/16)^(th) of P. If R is equal to the number of years (N), find the value of N.

(a) 8.5
(b) 7
(c) 7.5
(d) 6

Q80. What is 40% of 3/5th of 24?

(a) 14.4
(b) 5.76
(c) 7.2
(d) 9.6

Q81. The World Heritage Site having the architectural work of Le Corbusier is located in:

(a) Kochi
(b) Chandigarh
(c) Goa
(d) Puducherry

Q82. Which one of the following states does NOT have the Indian Elephant as its State animal?

(a) Assam
(b) Karnataka
(c) Kerala
(d) Jharkhand

Q83. A statement followed by some conclusions are given below.

Statement : Nowadays, life has become very difficult without a mobile phone

Conclusions :

I. Total number of mobile subscribers is increasing.

II. Mobile has become an integral part of life.

Find which of the given conclusions logically follows from the given statement.

(a) Only conclusion I follows
(b) Neither I nor II follows
(c) Both I and II follow
(d) Only conclusion II follows

Q84. A question and three statements labeled (I), (II) and (III) are given. You have to decide which statement(s) is/are sufficient to answer the question.

Find the present age of Y.

Statements :

I. At present, X is 3 times as old as Y.

II. X and Y started schooling in the same year.

III. After 5 years, the age of X will be 2 (1/2) times that of Y.

(a) Both statements I and II are sufficient.
(b) Both statements II and III are sufficient.
(c) Only statement I is sufficient.
(d) Both statements I and III are sufficient.

Q85. The first pair of words has a certain relation. Find the word which has same relation to the next pair.

Jupiter : Europa :: Earth: ?

(a) Apollo
(b) Star
(c) Phobos

YourMockTest.com — Free Study Material

(d) Moon

Q86. Car I covers a distance in a certain time. Car II takes double the time to cover half the same distance. Find the ratio of their respective speeds.

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

Q87. Complete the analogy.

B : 8 : : C : ?

(a) 27
(b) 10
(c) 24
(d) 11

Q88. Which of the following is not an environmental problem?

(a) Genetic modification of food
(b) Afforestation
(c) Acid Rain
(d) Loss of Biodiversity

Q89. Speeds greater than the speed of sound in air are known as _____.

(a) Supersonic
(b) Solar
(c) Infrasonic
(d) Ultrasonic

Q90. What is the next term in the following alphabetical series?

ACBD, FHGI, KMLN, ?

(a) OQPR
(b) PRQS
(c) PQRS
(d) OPQR

Q91. Which one is NOT true for electromagnets?

(a) It is a temporary magnet.
(b) Its strength varies with the air gap between its poles.
(c) Polarity cannot be changed.
(d) Its strength can be changed.

Q92. Plants and microorganisms help in re-creating the quality of _____

(a) our lifestyle
(b) our wealth
(c) outer space
(d) the air we breathe

Q93. The areas of two similar triangles are 169 sq.cm. and 121 sq.cm. If the longest side of larger triangle is 26 cm, then the length of the longest side of the other triangle is _____.

(a) 26 cm
(b) 18 cm
(c) 28 cm
(d) 22 cm

YourMockTest.com — Free Study Material

Q94. If a student's marks were increased by 25%, he would have scored 75 in his test. How much did he actually score?

(a) 60
(b) 50
(c) 15
(d) 25

Q95. A formula in MS Excel starts with a _____ symbol.

(a) +
(b) =
(c) #
(d) @

Q96. If the mean of distribution 10, 8, 15, 12, K, 25 is 12, find the value of K.

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

Q97. Find the missing number (?) in the following series.

1, 1.5, 2.5, 4, ?, 8.5, 11.5, ...

(a) 6
(b) 5
(c) 4.5
(d) 5.5

Q98. Which of the following is a non-food crop?

(a) Fibre crops
(b) Coffee
(c) Oil seeds
(d) Sugarcane

Q99. Find the least square number which is exactly divisible by 4, 9 and 14.

(a) 1008
(b) 252
(c) 1764
(d) 504

Q100. One of the conditions for recognition of a political party as a State party in India is that it secures at least _____% of the valid votes polled at the last general election in the State to the Legislative Assembly..

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

Q101. Which of the following is the source of the Sanskrit phrase 'Satyameva Jayate'?

(a) Mundaka Upanishad
(b) Agam Literature
(c) Tripitaka
(d) Bible

Q102. In the which year States Reorganization Commission was constituted ?

(a) 1956
(b) 1954
(c) 1953
(d) 1955

YourMockTest.com — Free Study Material

Q103. If the mathematical operators -, +, × and ÷ are represented by A, B, C and D respectively, then find the value of 9 B 20 C 12 D 6 A 8.

(a) 40
(b) 49
(c) 57
(d) 41

Q104. 'Flora and fauna' refer to _____.

(a) birds and animals
(b) mountains and rivers
(c) plants and animals
(d) humans and animals

Q105. In general, physical classification of states of matter does not included the _____ state.

(a) Colloidal
(b) Gaseous
(c) Liquid
(d) Solid

Directions

Consider the following information and answer the questions based on it.

150 people from a locality commute daily for work. Out of them 25 travel only by bus, 40 only by train, 20 take both taxi and train, 30 use only private cars, 25 take bus and taxi and the remaining travel only by taxi.

Q106. What is the percentage of people who use only one mode of transport?

(a) 75%
(b) 63.2%
(c) 50%
(d) 70%

Q107. In all, how many people use taxi to commute?

(a) 55
(b) 30
(c) 45
(d) 35

Q108. NASA's JUNO unmanned spacecraft successfully executed first stage of its mission by orbiting _____.

(a) Jupiter
(b) Moon
(c) Mars
(d) Neptune

Q109. Germanium is a commonly used _____.

(a) Moderator
(b) Semiconductor
(c) Conductor
(d) Insulator

Q110. A person walks through a distance of 600 m in 5 minutes. What is his speed in kmph?

(a) 8.6 kmph
(b) 8.4 kmph
(c) 6.8 kmph
(d) 7.2 kmph

YourMockTest.com — Free Study Material

Q111. A pack of chocolates is divided between three friends, Amar, Akbar and Anthony in the ratio 3:4:5 respectively. If Akbar gets 50 chocolates more than Amar, then how much does Anthony get?

(a) 250
(b) 100
(c) 150
(d) 200

Q112. A portion inside a rectangle of length 5 m and breadth 2 m is shaded in the form of a square of side 2 m. What is the ratio of the area of the shaded square to the unshaded portion of the rectangle?

(a) 3 : 2
(b) 2 : 3
(c) 5 : 2
(d) 2 : 5

Q113. 'NITI' in NITI Aayog stands for :

(a) National Index of Transcending Indian
(b) National Institute of Transforming India
(c) National Institution for Tracking Indians
(d) National Institution for Transforming India

Q114. The Kingdom of Bhutan lies in the _____Himalayas.

(a) Northern
(b) Eastern
(c) Western
(d) Central

Q115. A car covers a certain distance in 45 minutes at a speed of 60 kmph. What should be the speed in kmph, if it has to cover the same distance 5 minutes earlier?

(a) 62
(b) 58.25
(c) 55
(d) 67.5

Q116. In September 2016, WHO (World Health Organisation) certified that_____ is malaria-free.

(a) Malaysia
(b) Sri Lanka
(c) Singapore
(d) China

Q117. What will be the value of the expression if the signs '÷' and '×' are interchanged?

45 ÷ 0.4 - 21 × 3 + 1

(a) -5
(b) 12
(c) 7
(d) 11

Q118. Which one of the following is not considered as harmful to the society?

(a) Child marriage
(b) Dowry system
(c) Untouchability
(d) Adult franchise

YourMockTest.com — Free Study Material

Q119. Find the compound interest on Rs. 6400 at 25% p.a. for 3 years.

(a) Rs. 6,050
(b) Rs. 6,150
(c) Rs. 6,000
(d) Rs. 6,100

Q120. DNS stands for :

(a) Domain Name System
(b) Data Net Service
(c) Data Net System
(d) Domain Name Setup

ANSWER KEY

1	c	2	a	3	d	4	b	5	b	6	c	7	b	8	a	9	a	10	c
11	a	12	d	13	d	14	a	15	a	16	b	17	a	18	d	19	c	20	b
21	a	22	b	23	d	24	c	25	a	26	a	27	c	28	d	29	a	30	d
31	c	32	d	33	c	34	c	35	c	36	a	37	d	38	a	39	c	40	b
41	b	42	d	43	d	44	c	45	c	46	c	47	d	48	c	49	c	50	d
51	d	52	d	53	d	54	d	55	c	56	b	57	d	58	b	59	d	60	b
61	a	62	c	63	a	64	c	65	c	66	c	67	b	68	a	69	c	70	c
71	d	72	a	73	a	74	a	75	c	76	d	77	a	78	c	79	c	80	b
81	b	82	a	83	d	84	d	85	d	86	d	87	a	88	b	89	a	90	b
91	c	92	d	93	d	94	a	95	b	96	a	97	a	98	a	99	c	100	d
101	a	102	c	103	d	104	c	105	a	106	d	107	a	108	a	109	b	110	d
111	a	112	b	113	d	114	b	115	d	116	b	117	b	118	d	119	d	120	a

SOLUTIONS

Q1. Answer: (c) P. Susheela

The correct answer is P. Susheela.

Key Points

• Legendary playback singer of South Indian languages, P Susheela, celebrated for her versatility, has entered the Guinness World Records for recording the highest number of songs in several languages in a career spanning over half a century.

• Pulapaka Susheela Mohan (born in1935) has reportedly recorded up to 17,695 solo, duet, and chorus-backed songs in over six Indian languages since the 1960s.

• She has sung songs in Tamil, Telugu, Malayalam, Kannada, Hindi, and other Indian languages.

Additional Information

• Guinness Book of World Record:

• It is a reference book published annually, listing world records of both human achievements and the extremes of the natural world.

• The brainchild of Sir Hugh Beaver, the book was co-founded by twin brothers Norris and Ross McWhirter in Fleet Street, London, in August 1954.

• The book itself holds a world record, as the best-selling copyrighted book of all time.

• As of the 2019 edition, it is now in its 64th year of publication, published in 100 countries and 23 languages, and maintains over 53,000 records in its database.

Q2. Answer: (a) Human culture

The correct answer is Human culture.

Key Points

YourMockTest.com — Free Study Material

• The word “science” is derived from the Latin word Scientia meaning knowledge.

• Science refers to a systematic and organized body of knowledge in any area of inquiry that is acquired using “the scientific method”

• Science can be grouped into two broad categories:

• Natural science: Natural science is the science of naturally occurring objects or phenomena, such as light, objects, matter, earth, celestial bodies, or the human body.

• Natural sciences can be further classified into physical sciences, earth sciences, life sciences, and others.

• Physical sciences consist of disciplines such as physics (the science of physical objects), chemistry (the science of matter), and astronomy (the science of celestial objects).

• Earth sciences consist of disciplines such as geology (the science of the earth).

• Life sciences include disciplines such as biology (the science of human bodies) and botany (the science of plants).

• Social science: social science is the science of people or collections of people, such as groups, firms, societies, or economies, and their individual or collective behaviors.

• Social sciences can be classified into disciplines such as psychology (the science of human behaviors), sociology (the science of social groups), and economics (the science of firms, markets, and economies).

Q3. Answer: (d) Only statement III is sufficient.

From Statement I: A man is 3^(rd) from the beginning of the queue.

Cannot determine the number of people in the queue.

From Statement II: A man is 20^(th) from the center of the queue.

Cannot determine the number of people in the queue.

From Statement III: A man is 7^(th) from the end and 17th from the beginning.

From only statement III, we can find the total number of people in the queue:

A man is 7th from the end so there are 6 persons after the man + 17^(th) from the beginning so there are 16 persons before the man + the man himself = 6 + 16 + 1 = 23

so, there are 23 people in the queue.

Hence, ‘Only statement III is sufficient’ is the correct answer.

Q4. Answer: (b) Mixer and grinders

The correct answer is Mixer and grinders.

Key Points

• Chlorofluorocarbons (CFCs) are nontoxic, nonflammable chemicals containing atoms of carbon, chlorine, and fluorine.

• They are used in the manufacture of aerosol sprays, Refrigerators, blowing agents for foams and packing materials, as solvents, and as refrigerants.

Additional Information

• Chlorofluorocarbons (CFCs) contribute to ozone depletion in the upper atmosphere, the manufacture of such compounds has been phased out under the Montreal Protocol, and they are being replaced with other products such as hydrofluorocarbons (HFCs) including R-410a and R-134a.

• The production of CFCs ceased after 1995.

• The interim replacements for CFCs are hydrochlorofluorocarbons (HCFCs), which deplete stratospheric ozone, but to a much lesser extent than CFCs.

• Ultimately, hydrofluorocarbons (HFCs) will replace HCFCs.

• Unlike CFCs and HCFCs, HFCs have an ozone depletion potential (ODP) of 0.

Q5. Answer: (b) Drought

Here the logic is:

Illiterate : Educated → Antonym of Illiterate is Educated

Similarly,

Flood : ? → Antonym of flood is Drought

Hence, ‘Flood : Drought’ is the correct answer.

Q6. Answer: (c) Bhutan

The correct answer is Bhutan.

• Archery is the national sport of Bhutan.

• It was declared as the national sport in 1971, the inclination of people towards archery in Bhutan started in the 1920s, under the

leadership of Jigme Wangchuk, the second king of the country.

Key Points

• Bhutan:

• It is bordered by the Tibet Autonomous Region of China in the north, the Chumbi Valley of Tibet, and is barely separated from Nepal, from the Indian state of Sikkim in the west and the Indian states of Assam, West Bengal, and Arunachal Pradesh in the south, east, and southwest.

• Thimphu also spelled Thimbu is the capital of Bhutan.

• Lotay Tshering is the current Prime Minister of Bhutan.

• The Ngultrum is the currency of Bhutan.

Additional Information

Country	National Sport
Turkey	Oil Wrestling
China	Table Tennis
Japan	Sumo

Q7. Answer: (b) Shared culture

The Correct Answer is the Shared Culture.

Key Points

• Ethnic' group of people, more appropriately, refers to people with a Shared culture.

• Ethnic Group, a social group of the population that, in a larger society, is set apart and bound together by common ties of race, language, nationality, or culture.

• In the United States of America, the term “ethnic” carries a different meaning from how it is commonly used in some other countries, due to the historical and ongoing significance of racial distinctions that categorize together what might otherwise have been viewed as ethnic groups.

• Ethnicity in the U.S. therefore usually refers to collectives of related groups, having more to do with physical appearance, specifically skin color, rather than political boundaries.

Q8. Answer: (a) Rational numbers do not include fractions.

The Correct Answer is Rational numbers do not include fractions.

• Every fraction is a rational number, but the rational number does not have to be a fraction.

• Let a/b be a fraction, a and b are natural numbers.

• Since each natural number is an integer. So, a and b are all integers.

• Thus, the fraction a/b is a quotient of two integers such that b is a quotient of 0.

• Therefore, a/b is a rational number.

• A fraction is expressed in the form of the ratio of whole numbers: a/b and b≠0.

Important Points

• Irrational numbers are all real numbers that are not rational numbers. In other words, irrational numbers can not be expressed as the ratio of two integers.

• Real numbers are special, up to order-preserving isomorphism, a complete ordered field containing rational numbers as an ordered sub-field.

Q9. Answer: (a) Application Software

The correct answer is Application Software.

Key Points

• MS Word is an example of application software developed by the company Microsoft.

• It allows users to type and save documents.

• It is helpful too for making documents.

• It is originally developed by Charles Simonyi and Richard Brodie, it was first released in 1983.

• It is available for Microsoft Windows and Apple OS.

Additional Information

Compiler:

• It is computer software that translates source code written in a high-level language (e.g. C++) into a set of machine language instructions that can be understood by a digital computer's CPU.

YourMockTest.com — Free Study Material

• Compilers are very large programs, with error checking and other abilities.

Operating System (OS):

• It is software that acts as an interface between the end-user and computer hardware.

• Every computer must have at least one OS to run other programs.

• OS helps to communicate with the computer without knowing how to speak the computer's language.

System Software:

• It refers to the files and programs that make up the computer's operating system.

• Examples of System Software include operating systems like Mac OS, GNU/Linux, Android, and Microsoft Windows.

Q10. Answer: (c) $4\sqrt{6} > 3\sqrt{5} > 2\sqrt{8}$

Concept Used:

$\sqrt{a} > \sqrt{b}$ only when a > b, where a and b are whole number

Calculation:

$3\sqrt{5} = \sqrt{45}$, $2\sqrt{8} = \sqrt{32}$, $4\sqrt{6} = \sqrt{96}$

$\Rightarrow \sqrt{96} > \sqrt{45} > \sqrt{32}$

$\Rightarrow 4\sqrt{6} > 3\sqrt{5} > 2\sqrt{8}$

Q11. Answer: (a) Cannot be determined

Symbol representation:

Important Points

• The question is asked about U.

• So, to determine the answer, we need to know the gender of U.

• However, the gender of U cannot be determined.

The family tree diagram is shown below:

Hence, ‘Cannot be determined ’ is the correct answer.

Q12. Answer: (d) Vatican City

The correct answer is Vatican City.

Key Points

• St. Peter's Square is located in Vatican City.

• St Peter Square is also known as "Piazza San Pietro".

• St. Peter's Square is a large plaza located directly in front of the St. Peter's Basilica in the Vatican City, the papal enclave inside Rome, directly west of the neighbourhood of Borgo.

• It is named after Saint Peter, an apostle of Jesus considered by Catholics to be the first Pope.

• In the centre of the square is an Ancient Egyptian obelisk, erected at the current site in 1586.

• Gian Lorenzo Bernini designed the square almost 100 years later, including the massive Doric Colonnades, four columns deep, which embrace visitors in the "maternal arms of mother church".

• It also represents the core of the Vatican City, the smallest state in the World.

• In the origins, the square used to be the place where Nerone Circus and Gardens were located, and where many Christians including Saint Peter, suffered from martyrdom.

Additional Information

Country	Capital
Greece	Athens
Germany	Berlin
The United States of America	Washington

Q13. Answer: (d) Foreign Direct Investment

The correct answer is Foreign Direct Investment.

Key Points

• FDI Stands for Foreign Direct Investment.

• It is an investment made by a firm or individual in one country into business interests located in another country.

• However, FID's are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based

YourMockTest.com — Free Study Material

companies.

• It plays an important role in the economic development of a country.

• There are 3 types of FDI:

• Horizontal FDI

• Vertical FDI

• Conglomerate FDI

• Horizontal FDI:

• It is where funds are invested abroad in the same industry.

• In other words, a business invests in a foreign firm that produces similar goods.

• For example, a US-based firm may purchase Puma, a Germany-based firm.

• They are both in the industry of sportswear and therefore would be classified as a form of horizontal FDI.

• Vertical FDI:-

• Vertical FDI is where an investment is made within the supply chain, but not directly in the same industry.

• In other words, a business invests in a foreign firm that it may supply or sell too. For example, Hershey's, a US Manufacturer may look to invest in cocoa products in Brazil.

• This is known as backward vertical integration because the firm is purchasing a supplier, or potential supplier, in the supply chain.

• Conglomerate FDI:

• It is where an investment is made in a completely different industry. In other words, it is not linked in any direct way to the investor's business.

• For Example, Walmart, a US retailer, may invest in BMW, a German automobile manufacturer.

Important Points

• Advantages of FDI:

• Boost to International Trade.

• Reduced Regional and Global Tensions

• Sharing of Technology, Knowledge, and Culture.

• Diversification

• Lower Costs and increased efficiencies

• Tax Incentives

• Employment and Economic Boost

• Disadvantages of FDI:

• Foreign Control

• Loss of Domestic Jobs

• Risk of Political or Economic Change

Q14. Answer: (a) United for Peace and Harmony

The correct answer is United for Peace and Harmony.

Key Points

• The Head of State and Government of the Non-Aligned Movement (NAM), gathered in the Island of Margarita, Bolivarian Republic of Venezuela, within the framework of the XVII Conference Summit, on 17-18 September 2016, with the slogan United for Peace and Harmony.

• Between 2014 and 2020, two NAM Summits were held in 2016 and 2019.

• 2016 in Venezuela and 2019 in Azerbaijan.

• In both Summits, India was represented by Vice President.

• Nicolas Maduro is the Chairperson of NAM.

• India is one of the founding members of the NAM Summit and India hosted the 7^(th) NAM Summit in 1983 in New Delhi.

Additional Information

• NAM:

• The Non Aligned movement is a forum of 120 developing world states that are not formally aligned with or against any major power.

• After the United Nations, it is the largest grouping of states worldwide.

• Members: 120 States

• Establishment: Belgrade, SFR Yugoslavia September 1,1961

Q15. Answer: (a) Only conclusion I follows

The statement mentions that all drugs have side effects, so no medicine without the risk of side effects is true. Still, no information is given about the drugs that make things worse than the disease itself, so the only conclusion I follow. Hence, 'Only conclusion I follow' is the correct answer.

Q16. Answer: (b) 17/25

The Correct Answer is 17/25.

• Decimal termination is generally defined as a decimal number that comprises a finite number of digits after the decimal point.

• Terminating decimals like 13.2 can be interpreted as repeated decimals 13.20000000000 ... so where the repeating digit is zero, the number is usually labelled as terminating.

• Both ending decimals are rational numbers that can be written down as reduced fractions with denominators having no prime number variables other than two or five.

• 17/25 = 0.68

• 1/6 = 0.16666666666

• 10/3 = 3.3333333333

• 1/11 = 0.0909090909

• Option (2) have two-digit after decimal means this fraction has finite number while other have infinite numbers after decimal.

Q17. Answer: (a) The constituents of a mixture retain their physical properties

The correct answer is The constituents of a mixture retain their properties.

Key Points

• Mixture:

• A Mixture is a combination of two or more substances in any proportions.

• There are two types of Mixture:

• Homogeneous mixture

• Heterogeneous mixture

• Properties of Mixture:-

• The Mixture has no fixed composition.

• To form mixture energy is neither produced nor evolved.

• The Mixture has no fixed melting and boiling point.

• Mixture retains the properties of its components.

• Components of Mixture can be separated by simple physical methods.

Q18. Answer: (d) IUTRF

Here the logic is:

The word is coded as:

Similarly,

FRUIT can be coded as:

Hence, 'IUTRF' is the correct answer.

Q19. Answer: (c) ÷ + = ×

Here the logic is:

In this type we solve the question according to 'BODMAS' rule :

To balance the equation i.e. (RHS = LHS) we check each option one by one:

1) = × ÷ + → 25 = 5 × 35 ÷ 20 + 2 → 25 ≠ 5 × 35 ÷ 20 + 2 Hence, RHS is not equal to LHS

2) + = × ÷ → 25 + 5 = 35 × 20 ÷ 2 → 30 ≠ 350 Hence, RHS is not equal to LHS

3) ÷ + = × → 25 ÷ 5 + 35 = 20 × 2 → 40 = 40 Hence, RHS is equal to LHS

4) × ÷ + = → 25 × 5 ÷ 35 + 20 = 2 → 25 × 1 ÷ 7 + 20 ≠ 2 Hence, RHS is not equal to LHS

Hence, '÷ + = × ' is the correct answer.

Q20. Answer: (b) Svetlana Alexievich

The correct answer is Svetlana Alexievich.

Key Points

• Svetlana Alexievich is a Belarusian investigative journalist, essayist, and oral historian who writes in Russian.

• She was awarded the 2015 Nobel Prize in Literature "for her polyphonic writings, a monument of suffering and courage in our time."

• She was the first writer from Belarus to receive the award.

• She was elected chairman of the Belarusian PEN Center on 26 October 2019.

• During the 2020 Belarusian protests, Alexievich became a member of the Sviatlana Tsikhanouskaya Coordination Council.

Important Points

Names	Known for	Country
Paul Modrich	Nobel Prize in Chemistry 2015	United States
William C. Campbell	Nobel Prize in Physiology or Medicine 2015	Ireland
Takaaki Kajita	Nobel Prize in Physics 2015	Japan

Q21. Answer: (a) 1/p

Calculation:

given expression is $1 \div [\{p^2/(p + 6)\} + \{6p/(p + 6)\}]$

$\Rightarrow 1 \div [\{p^2 + 6p\}/(p + 6)]$

$\Rightarrow 1 \div [\{p(p + 6)\}/(p + 6)]$

$\Rightarrow 1/p$

Q22. Answer: (b) 140

Follow BODMAS rule to solve this question, as per the order given below.

Step - 1: Parts of an equation enclosed in 'Brackets' must be solved first, and following BODMAS rule in the bracket -

Step - 2: Any mathematical 'Of' or 'Exponent' must be solved next.

Step - 3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated.

Step - 4: Last but not the least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

Given expression is

$[(169 \times 121) \div (11 \times 13)] - 3 = ?$

$\Rightarrow [(13 \times 13 \times 11 \times 11) \div (11 \times 13)] - 3 = ?$

$\Rightarrow [(11 \times 13)] - 3 = ?$

$\Rightarrow [143] - 3 = ?$

$\Rightarrow 140 = ?$

Q23. Answer: (d) 6

Given:

$\tan \theta = 1/\sqrt{5}$

Formula Used:

$\tan \theta = P/B$ and $\text{Cosec } \theta = H/P$; where $H^2 = P^2 + B^2$; H = hypotenuse, P = perpendicular, B = Base

Calculation:

$\Rightarrow H^2 = 1^2 + \sqrt{5}^2 = 6$

$\Rightarrow H = \sqrt{6}$

$\Rightarrow \text{Cosec } \theta = H/P = \sqrt{6}/1$

$\Rightarrow \text{Cosec}^2 \theta = 6$

We know that,

$\cot\theta = 1/\tan\theta$

$\text{Cosec}^2\theta - \cot^2\theta = 1$

$\Rightarrow \text{cosec}^2\theta = 1 + \cot^2\theta$ ----(1)

Now, $\tan\theta = 1/\sqrt{5}$

$\Rightarrow \cot\theta = \sqrt{5}$

Using (1) get,

$\text{cosec}^2\theta = 1 + (\sqrt{5})^2$

$\Rightarrow \text{cosec}^2\theta = 1 + 5 = 6$

YourMockTest.com — Free Study Material

Q24. Answer: (c) Golfer

The correct answer is Golfer.

Key Points

• Gaurav Ghei is an Indian professional golfer who plays on the Asian Tour.

• He was born on 25 September 1968.

• In 1991, he became a professional golfer.

• He won three Asian Tour titles:

• The Gadgil Western Masters(1995)

• The Taiwan Masters(2006)

• The Beijing Open(2007)

• He became the first Indian golfer to qualify for the Open Championship in 1997.

• He represented India in 1997, 2003, and 2007 World Cup.

Q25. Answer: (a) 1905

The correct answer is 1905.

Key Points

• The Indian Railway Board Act was passed in March 1905.

• In 1901, on the advice of the Sir Thomas Robertson Committee on the management and service of the railways, an early version of the railway board was drawn up.

• In 1905, the government of Lord Curzon formalised its powers.

• The Board was appointed by the Department of Commerce and Industry of the British Government of India.

• The Ministry of Railways is the Ministry of Railways of the Government of India, which is responsible for the rail transport of the country.

• The Ministry operates the state-owned Indian Railways, an agency that operates as a railway monopoly and is headed by the Chairman of the Railway Board.

• The Ministry of Railways and the Railway Board are situated within Rail Bhavan, New Delhi.

Q26. Answer: (a) Development Bank

The correct answer is Development Bank.

Key Points

• The National Bank for Agriculture and Rural Development (NABARD) is an apex development finance agency solely operated by the Government of India.

• The Bank has been charged with "policy, planning and lending activities related to agriculture and other economic activities in rural areas in India".

• NABARD is active in the adoption of a framework on financial inclusion.

• On 12 July 1982, NABARD was formed on the recommendation of the B.Sivaramman Committee to enact the National Bank for Agriculture and Rural Development Act 1981.

• It replaced the Rural Planning and Credit Cell (RPCC) and Department of Agricultural Credit (ACD) of the Reserve Bank of India and the Agricultural Refinance and Development Corporation (ARDC).

• It is one of the leading construction credit organisations in rural areas.

• NABARD is India's specialized bank for agriculture and rural development in India.

Additional Information

• Formation: 12^(th) July 1982

• Headquarters: Mumbai, India

• Chairman: Dr. G.R. Chintala

Q27. Answer: (c) Punjab

The correct answer is Punjab.

Key Points

• Lala Lajpat Rai was an Indian freedom fighter from the Moga district of Punjab.

• In the Indian Independence Movement, he played a crucial role.

• It was popularly known as Punjab Kesari.

• He was one of the three triumvirates of Lal Bal Pal.

• He was also affiliated with the operations of the Punjab National Bank and Lakshmi Insurance Company in their early years in

YourMockTest.com – Free Study Material

1894.

• He was elected president of the Indian National Congress at the Calcutta Session of 1920.

• In 1921, he founded Servants of the People's Society, a non-profit welfare organisation in Lahore, which moved its base to Delhi after partitioning, and has branches in several parts of India.

• Lajpat Rai was a veteran leader of the Indian Nationalist Movement, the Indian Independence Movement led by the Indian National Congress, Arya Samaj and the Hindu Reform Movement.

Q28. Answer: (d) Motion pictures

The correct answer is Motion pictures.

Key Points

• Ben Kingsley (the original name of Krishna Bhanji) a British actor remembered for portraying a wide variety of roles, including the title character in Gandhi (1982), for which he received the Academy Award for Best Actor.

• He was followed in Gandhi by films such as Betrayal (1983), Turtle Diary (1985), and Pascali 's Island (1988).

• He was nominated for the Best Supporting Actor Oscar for his role as Meyer Lansky in Bugsy's Las Vegas Crime Drama (1991).

• He was appointed Knight Bachelor in 2002 to represent the British film industry.

• In 2010, he was awarded the Hollywood Walk of Fame star.

• In 2013, he was awarded the Britannia Award for Worldwide Contribution to Filmed Entertainment.

Q29. Answer: (a) 75

Given:

G and H can do a work in 30 days and H alone can do it in 50 days,

Formula Used:

If A and B can complete a job in ‘y’ days and ‘z’ days respectively, then time taken together to complete the job = (y × z)/(y + z) days

Calculation:

Let the time taken by G alone to complete the work be 'g' days

=> 30 = (50 × g)/(50 + g)

=> 150 + 3g = 5g

=> 2g = 150

=> g = 75 days

Therefore G alone can do it in 75 days

Q30. Answer: (d) 4%

Given:

Cost of rice A = Rs. 210 per kg

Cost of rice B = Rs. 280 per kg

The selling price of the mixed variety of A and B = Rs. 260 per kg

Rice A and Rice B is mixed in the ratio = 3 : 4

Formula used:

Ratio = (Dearer price – mean)/(mean – cheaper price);

Profit% = [(S.P – C.P)/C.P] × 100

Calculation:

Let the cost price of the mixture be Rs. 'x'

=> 3/4 = (280 – x)/(x – 210)

=> 3x – 630 = 1120 – 4x

=> 3x + 4x = 1120 + 630

=> 7x = 1750

=> x = 250

Profit% = [(260 - 250)/250] × 100 = 4%

Therefore The profit percentage is 4%.

Q31. Answer: (c) Father-in-law

Symbol representation:

The family tree diagram is shown below:

Hence, 'Father-in-law ' is the correct answer.

Q32. Answer: (d) Agra

The correct answer is Agra.

Key Points

• Akbar's seat of Government was Agra.

• Akbar, full name Abu al Fath Jalal al-Din Muhammad Akbar is the greatest of the Mughal emperors of India.

• He reigned from 1556 to 1605 ad extended Mughal Power to most of the Indian Subcontinent.

• In order to preserve the unity of the Empire, Akbar adopted programs that won the loyalty of the Non-Muslim populations of his realm.

• He took an active interest in other religions, persuading Hindus, Parsis, and Christians, as well as Muslims, to engage in religious discussion before him.

• He encouraged scholars, poets, painters, and musicians, making his court a center of culture.

Additional Information

• Born: October 15, 1542 (Umarkot, Pakistan)

• Died: October 25, 1605 (Agra, India)

• Role in: Battles of Panipat, Second Battle of Panipat

• House: Mughal Dynasty

• Father: Humayun

• Son: Jahangir

Q33. Answer: (c) 192.5 sq.m

Given:

A circular ground of radius 7 m is surrounded by a path of width 3.5 m

Calculation:

we have, R = (7 + 3.5) m = 10.5 m, r = 7

=> area of the path = $\pi(R^2 - r^2)$

=> area of the path = $22/7 \times (10.5^2 - 7^2)$

=> area of the path = $22/7 \times [(10.5 + 7)(10.5 - 7)]$

=> area of the path = $22/7 \times 17.5 \times 3.5 = 192.5$ sq.m

Therefore area of the path = 192.5 sq.m

Q34. Answer: (c) 61/2

Given:

P, Q and R can do a work in 10, 15 and 30 days respectively. Pattern of doing work = PQR, P, PQR, P, ...

Concept used:

work = time × efficiency

Calculation:

work	time	efficiency
P	10 days	30/10 = 3
Q	15 days	30/15 = 2
R	30 days	30/30 = 1
Total work (lcm of time)	30 units	

work done by P, Q, and R in a day = 6 unit

=> According to the given pattern = PQR, P, PQR, P, PQR, P = 6 + 3 + 6 + 3 + 6 + 3 = 27 unit

27 units of work is done in 6 days

=> Remaining work = 30 - 27 = 3 unit

According to the pattern next work to be done by PQR together.

=> Time required to complete the remaining work = 3/6 = 1/2 days

Therefore Required total number of days to complete the work = 6 + 1/2 = 6.5 days

Alternate Method

work	time	efficiency
P	10 days	30/10 = 3
Q	15 days	30/15 = 2
R	30 days	30/30 = 1
Total work (lcm of time)	30 units	

According to the question,

P, Q, and R together work in first day = 6 unit

Second day P work alone = 3 unit

In 2 days = 6 + 3 = 9 unit

Multiply by 3 both side

=> 6 days = 27 unit work done

Then next turn work P, Q, and R work together, but the remaining work is 3 unit

=> 3/6

Total Work completed in 6 + 1/2 days

Therefore Required total number of days to complete the work = 6 + 1/2 = 6.5 days

The mistake point in question is who will work on 1st day. If you carefully read the question you get that P, Q, and R together starts the work on 1st day and then the next day P alone does work. and this pattern will continue till the work is complete. so, the correct answer is 6.5 days.

Q35. Answer: (c) H

Here the logic is:

Hence, 'H' is the correct answer.

Q36. Answer: (a) 12

Concept:

Fourth proportion of three numbers a, b, and c = (b × c)/a

Calculation:

Let the fourth proportion be x

=> 14/6 = 28/x

=> x = 28 × 6/14

=> x = 12

Therefore The fourth proportion is 12.

Q37. Answer: (d) TN

Here the logic is:

Similarly,

Hence, 'PQ : TN' is the correct answer.

Q38. Answer: (a) Harmful

The correct answer is Harmful.

Key Points

• Harmful species are not in the IUCN classification of threatened species.

• IUCN Red List of Threatened Species, also called IUCN Red List, one of the most well-known objective assessment systems for classifying the status of plants, animals, and other organisms threatened with extinction.

• IUCN red list was founded in 1964.

• It uses a set of criteria to evaluate the extinction risk of a thousand of species and subspecies.

• There are 7 categories of the IUCN Red List:

• Data Deficient

• Least concern- unlikely to become extinct in the near future.

• Near Threatened- close to being at high risk of extinction in the near future.

• Vulnerable

• Endangered- very high risk of extinction in the wild.

• Critically Endangered- in a particular and extremely critical state.
• Extinct In The Wild- Survives only in captivity, cultivation, and outside the native range, as presumed after exhaustive surveys.
• Extinct- beyond a reasonable doubt that the species is no longer extant.

Q39. Answer: (c) Rs. 1,010

Shortcut Trick

Total Simple Interest percentage = 8% × 8 years = 64%.

As per question, 64% → Rs. 16,000 => 1% = Rs. 250.

New Rate of Interest = 8% ÷ 4 = 2%.

Effective Compound Interest rate for 2 years at 2% = 2 + 2 + (2 × 2)/100 = 4.04%.

Required Compound Interest = 4.04 × 250 = Rs. 1,010.

Therefore The correct answer is Rs. 1,010.

Alternate Method

Given:

Simple Interest (SI) = Rs. 16,000 | Rate (R1) = 8% | Time (T1) = 8 years

Formula Used:

$SI = (P \times R \times T) \div 100$

$CI = P[(1 + R/100)^n - 1]$

Calculations:

=> 16,000 = (P × 8 × 8) ÷ 100

=> 16,000 = 64P ÷ 100

=> P = (16,000 × 100) ÷ 64

=> Principal (P) = Rs. 25,000

=> New Rate (R2) = 8% ÷ 4 = 2% p.a.

=> New Time (n) = 2 years

=> $CI = 25,000 \times [(1 + 2/100)^2 - 1]$

=> $CI = 25,000 \times [(1.02)^2 - 1]$

=> $CI = 25,000 \times [1.0404 - 1]$

=> CI = 25,000 × 0.0404 = Rs. 1,010

Therefore The correct answer is Rs. 1,010.

Additional Information

Effective Rate for CI

For 2 years, the effective compound interest rate can be calculated using the formula: x + y + (xy/100), where x and y are the rates for the first and second year.

Difference between CI and SI

The difference between Compound Interest and Simple Interest for 2 years is given by: $D = P(R/100)^2$.

Amount in CI

The total Amount (A) after n years in compound interest is $A = P(1 + R/100)^n$.

Q40. Answer: (b) A is shorter than V and D

Here the logic is:

I. V is not shorter than A.

V > A, V = A

II. D is shorter than V.

D < V

III. A is shorter than D

A < D

Combining all three we get,

A < D < V

V is the longer among all and A is the shortest among all so we have the relation among them, V > D > A

Hence, 'A is shorter than V and D' is the correct answer.

Q41. Answer: (b) Tax on profit from the sale of a capital asset during a year.

The correct answer is Tax on profit from the sale of a capital asset during a year.

• A capital gains tax (CGT) is a tax on the profit realized on the sale of a non-inventory asset.

• The most common capital gains are realized from the sale of stocks, bonds, precious metals, real estate, and property.

Additional Information

Types of Taxes:

• There are different types of tax as follows:

• Direct Tax:

• It comprises the tax which we pay directly to the government. These taxes are levied on an individual. Different types of Direct taxes are:

• Income Tax

• Gift Tax

• Wealth Tax

• Capital Gains Tax

• Securities transaction tax

• Corporate tax

• Indirect Tax:

• These taxes are not levied on an individual but on goods and services.

• Various types of Indirect taxes are;-

• Sales Tax

• Services Tax

• Goods and Services Tax

• Value Added Tax

• Customs Duty

• Toll Tax

Q42. Answer: (d) 6

Given:

D can do a work in 18 days and E can do the same work in half that time.

Formula Used:

If A and B can complete a job in 'y' days and 'z' days respectively, then time taken together to complete the job = (y × z)/(y + z) days

Calculation:

E can do the same work in half that time = 18/2 = 9 days

Therefore required number of days = 18 × 9/(18 + 9) = 6 days

Q43. Answer: (d) 32%

Given:

15 laptops were purchased at Rs. 15,000 each and all of them were sold for Rs. 2.97 Lakh

Formula Used:

profit% = (S.P - C.P)/C.P × 100

Calculation:

=> Selling price of each laptop = 297000/15 = 19800

=> profit percentage = (19800 - 15000)/15000 × 100 = 32%

Therefore required profit percentage = 32%

Q44. Answer: (c) 1915

The correct answer is 1915.

Key Points

• Mahatma Gandhi returns to India from South Africa on 9 January 1915.

• After arriving in India, Mahatma Gandhi successfully organized Satyagraha Movements in various places.

• Gandhi returned to India from South Africa in 1915 at the request of Gopal Krishna Gokhale.

• Gandhi Ji returns from South Africa can be seen as perfect timing for the future of development of the Indian national movement.

YourMockTest.com — Free Study Material

Gokhale helped Gandhiji at the time of hardships in raising funds when Gandhiji was in South Africa.

• Gokhale insisted Gandhiji that he has been far away from his nation. He wanted Gandhiji to come to India and know the situation of India under British Rule.

Important Points

• Things Mahatma Gandhi did in South Africa:

• He organised non-violent protests against the racial discrimination directed towards the native Africans and Indians in 1894.

• He came to India for a short time in 1896 to gather fellow India to serve in South Africa,

• He organised the Indian Ambulance corps for the British during the outbreak of the Boer War in 1899.

• Het set up Phoenix Farm near Durban where Gandhi trained his cadre for peaceful restraint or non-violent Satyagraha.

• He also set up another farm which was Tolstoy Farm which is considered the place where Satyagraha was moulded into a weapon of protest.

• Movements Started by Gandhiji in India:

• Champaran Satyagraha of 1917

• Kheda Satyagrah of 1918

• Khilafat Movement Post World War I

• Non-Co-operation Movement

• Civil Disobedience Movement

• Negotiations over Round Table Conferences

• Gandhi Irwin Pact

• Quit India Movement

Additional Information

Mahatama Gandhi:

• Born: 2 October 1869

• Died: 30 January 1948

• He was undoubtedly a great man, both in personal force and in political effect.

• He was an Indian Lawyer, Politician, social activist, and writer who moulded the character of the struggle for freedom in India, and impressed his own ideals upon the new governing class that came into power when the English went home.

Q45. Answer: (c) Rs. 77.76

Given:

An amount is deposited at 8% p.a. compound interest.

Formula Used:

Compound interest = Principal × [(1 + rate/100)n - 1]; n = time period

Calculation:

72 = Principal × 8/100

=> Principal = 72 × 100/8 = Rs. 900

again C.I = 900 × [(1 + 8/100)2 - 1]

=> C.I = 900 × [729/625 - 1]

=> C.I = Rs. 149.76

=> C.I for 2nd year = C.I - C.I for 1st year

=> C.I for 2nd year = Rs. (149.76 - 72) = Rs. 77.6

Therefore The interest amount for 2^(nd) year is Rs. 77.6.

Q46. Answer: (c) Confidence

Here the logic is:

Grief : Happiness → Grief means sorrow and happiness means pleasure so, antonym of grief is happiness

Similarly,

Diffidence : ? → Diffidence means shyness so, antonym of diffidence is confidence

Hence, ‘Diffidence : Confidence’ is the correct answer.

Q47. Answer: (d) ((q - p))/2

Given:

N has Rs. p more than K. The total amount available with N and K together is Rs. q.

Calculation:

Let the amount available with K = x, then

=> amount available with N = x + p

=> amount available with K = total amount available with N and K together - amount available with N

=> x = q - (x + p)

=> 2x = q - p

=> x = ((q - p))/2

Q48. Answer: (c) 3/5

Calculation:

Given expression is x : 3/7 : : 7/9 : 5/9

=> x × 7/3 = 7 × 9/(5 × 9)

=> x = 3/5

Therefore The value of 'x' is 3/5.

Q49. Answer: (c) 70

Concept:

The mode is the value that occurs the most often in a data set

Calculation:

Using the above observations, we have 70 as maximum times i.e. (3 times)

Therefore Required mode = 70

Q50. Answer: (d) MR

Here the logic is:

Hence, 'MR' is the correct answer.

Q51. Answer: (d) 25/12

Given:

Expression is (1 + 2/3) ÷ [(1 + 1/3) ÷ (2/3 + 1)] = ?

Concept Used:

Calculation:

Given expression is (1 + 2/3) ÷ [(1 + 1/3) ÷ (2/3 + 1)] = ?

=> (5/3) ÷ [(4/3) ÷ (5/3)] = ?

=> (5/3) ÷ (4/5)

=> 25/12

Q52. Answer: (d) Snake

The correct answer is Snake.

Key Points

• Snakes are Carnivores means that they feed only on other animals such as rodents, lizards, and even the eggs of other reptiles.

• The specific food they consume depends upon the snake's size, species, and habitat.

• Snake's jaws have hinges that let them open wide and eat large prey.

• This allows some snakes to eat enormous animals.

• For instance, it is possible, though not usual, for a python to ingest a deer, a small cow, or even a crocodile.

• Snakes do not need to eat every day.

• In general, thin-bodied snakes eat at least once a week. Heavy-bodied snakes dine less frequently. The need to feed depends upon the snake's age and the size of the meal.

• A python or boa typically eats one or two good-sized meals a month.

Additional Information

Omnivores:-

• An omnivore is an animal that has the ability to eat and survive on both plant and animal matter.

• Obtaining energy and nutrients from plant and animal matter, omnivores digest carbohydrates, protein, fat, and fiber, and metabolize the nutrients and energy of the sources absorbed.

Rat:

YourMockTest.com — Free Study Material

• Rats are omnivores, which means they eat plants and animals, but they tend to enjoy different food items.

Ant:

• Ants are omnivores animals and therefore eat a mixture of both plant and animal matter.

• The diet of the ant primarily consists of leaves, fungi, honey, small insects, and dead animals, although the exact diet of the ant depends on the species.

Bear:

• Bears are omnivores and consume more plants than animal matter.

Q53. Answer: (d) 7

Given:

P :Q : R is 1/3 : 2/3 : 1/4 and Q = 56

Calculation:

Let the value of P, Q and R be x/3, 2x/3 and x/4 respectively

=> 2x/3 = 56

=> x = 84

=> P - R = x/3 - x/4 = 84/3 - 84/4

=> P - R = 28 - 21 = 7

Therefore required value = 7

Q54. Answer: (d) Rail transport

The correct answer is Rail Transport.

Key Points

• 'Mission Raftaar' project is associated with Rail Transport.

• With a view to increasing the speed of trains, Indian Railways announced 'Mission Raftaar' in the Railway Budget 2016-17.

• The mission envisages a target of doubling the average speed of freight trains and increasing the average speed of all non-suburban passenger trains by 25 Kmph in the next 5 years.

• Principal routes have been identified for raising speed under Mission Raftaar.

• These are six routes on Golden Quadrilateral and diagonals namely, Delhi- Mumbai, Delhi- Howrah, Howrah- Chennai, Chennai-Mumbai, Delhi- Chennai, and Howrah - Mumbai.

• These six routes carry 58% of freight traffic and 52% of coaching traffic with a share of only 16% of the network.

Additional Information

• Golden Quadrilaterals:

• It is designated as one of the longest highways in the world.

• It is basically a network of highways that connect the four major metropolitan cities of the country in four directions – Delhi (North), Chennai (South), Kolkata (East), and Mumbai (West) – thereby forming a quadrilateral, and hence the name Golden Quadrilateral.

• Launched in 2001, this was the largest highway and a very ambitious project.

• The project, which was undertaken by the National Highways Development Project (NHDP) and managed by the National Highways Authority of India (NHAI), was launched by the then Prime Minister Atal Behari Vajpayee.

• The planning for the project was completed in 1999 but the construction work officially started in 2001.

Q55. Answer: (c) Cataract

The correct answer is Cataract.

Key Points

• A cataract is a clouding of the lens, which prevents a clear, sharp image from being produced.

• A cataract forms because the lens is sealed in a capsule and as old cells die they get trapped in the capsule, with time this causes a clouding over of the lens, this clouding results in blurred images.

Additional Information

• Presbyopia:

• The power of accommodation of the eye usually decreases with aging.

• For most people, the near point gradually recedes away.

• They find it difficult to see nearby objects comfortably and distinctly without corrective eye-glasses.

• This defect is called presbyopia.

• It arises due to the gradual weakening of the ciliary muscles and diminishing flexibility of the eye lens.

• Hypermetropia:
• Hypermetropia is also known as far-sightedness.
• A person with hypermetropia can see distant objects clearly but cannot see nearby objects distinctly.
• This defect can be corrected by using a convex lens of appropriate power.
• Myopia:
• Myopia is also known as near-sightedness.
• A person with myopia can see nearby objects clearly but cannot see distant objects distinctly.
• A person with this defect has the far point nearer than infinity. Such a person may see clearly up to a distance of a few meters.
• In a myopic eye, the image of a distant object is formed in front of the retina and not at the retina itself.
• This defect can be corrected by using a concave lens of suitable power.

Q56. Answer: (b) 1.02 Lakh

Calculation:
=> number of votes polled by party IV in South constituency = 210,000
=> number of votes polled by party III(second highest) in South constituency = 108,000
Therefore required votes = 210000 - 108000 = 102000 = 1.02 Lakh

Q57. Answer: (d) Party IV

Calculation:
=> constituency won by Party I in terms of number of votes = East
=> constituency won by Party II in terms of number of votes = North
=> constituency won by Party III in terms of number of votes = no such constituency
=> constituency won by Party IV in terms of number of votes = South and West
Therefore clearly, Party IV has won more than one constituency in the district

Q58. Answer: (b) North

Calculation:
=> total number of votes polled for East constituency = (180 + 74 + 5 + 34) = 293,000
=> total number of votes polled for South constituency = (8 + 70 + 108 + 210) = 396,000
=> total number of votes polled for North constituency = (72 + 275 + 44 + 225) = 616,000
=> total number of votes polled for West constituency = (19 + 23 + 101 + 191) = 235,000
Therefore clearly North constituency has the highest total number of votes polled

Q59. Answer: (d) Party IV

Total number of votes for Party I in all the districts = 180 + 8 + 72 + 19 = 279
Total number of votes for Party II in all the districts = 74 + 70 + 275 + 23 = 442
Total number of votes for Party III in all the districts = 5 + 108 + 44 + 101 = 258
Total number of votes for Party IV in all the districts = 34 + 210 + 225 + 191 = 660
Therefore Party IV polled the highest number of votes in all the districts

Q60. Answer: (b) T

Professions- Politician, an actor, a banker, an ex-serviceman, a nurse and a housewife.
R is the ex-serviceman married to a housewife.
P is the wife of R
Q is an actor whose brother T is not a politician.
U is neither a banker nor a politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/Sister of T	Not definite
T	x Politician	Brother of Q	Male

U	x banker x Politician		

Now, the only profession left with us for U is nurse so, U is the nurse and T is not a politician then T's profession is banker. The only person remaining with us is S then S' profession is politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/sister of T	Not definite
T	Banker	Brother of Q	Male
U	Nurse		Female
S	Politician		Not definite

Hence, 'T' is the banker.

Q61. Answer: (a) S

Professions- Politician, an actor, a banker, an ex-serviceman, a nurse and a housewife.

R is the ex-serviceman married to a housewife.

P is the wife of R

Q is an actor whose brother T is not a politician.

U is neither a banker nor a politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/Sister of T	Not definite
T	x Politician	Brother of Q	Male
U	x banker x Politician		

Now, the only profession left with us for U is nurse so, U is the nurse and T is not a politician then T's profession is banker. The only person remaining with us is S then S' profession is politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/sister of T	Not definite
T	Banker	Brother of Q	Male
U	Nurse		Female
S	Politician		Not definite

Hence, 'S' is the politician.

Q62. Answer: (c) U

Professions- Politician, an actor, a banker, an ex-serviceman, a nurse and a housewife.

R is the ex-serviceman married to a housewife.

P is the wife of R

Q is an actor whose brother T is not a politician.

U is neither a banker nor a politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/Sister of T	Not definite
T	x Politician	Brother of Q	Male
U	x banker x Politician		

Now, the only profession left with us for U is nurse so, U is the nurse and T is not a politician then T's profession is banker. The only person remaining with us is S then S' profession is politician.

Person	Profession	Relation	Gender
R	Ex-serviceman	Husband of P	Male
P	Housewife	Wife of R	Female
Q	Actor	Brother/sister of T	Not definite
T	Banker	Brother of Q	Male
U	Nurse		Female
S	Politician		Not definite

Hence, 'U' is the nurse.

Q63. Answer: (a) Shore

Here the logic is:

River : Bank → A sloped side of a river acting as a barrier between the water and level ground to either side is called a bank.

Similarly,

Sea : ? → Sea is connected to land with areas called shore.

Hence, 'Sea : Shore' is the correct answer.

Q64. Answer: (c) Swayamsiddha

The correct answer is Swayamsiddha.

Key Points

• Swayamsiddha Foundation works in the field of Women Empowerment through various initiatives such as motivation, training, skill up-gradation, marketing, etc.

• It aids Women Empowerment through interventions in Self Employment and Self Help Groups (SHGs).

• Self Employment:

• Organizing Awareness Programmes on Self Employment.

• Organizing Skill Oriented Training Programmes.

• Providing Business Inputs.

• Providing Handholding Support.

• Providing marketing platform for products of entrepreneurs.

• SHG (Bachat Gats):

• Mentoring of New Groups.

• Strengthening of existing SHGs.

• Registering New & Existing Groups.

• Addressing common problems of SHGs.

• Capacity Building of enrolled SHGs

• Imparting Training to enrolled SHGs

• Assisting SHGs in their endeavour to excel.

Additional Information

• Inclusive education for the disabled at the secondary stage:

YourMockTest.com – Free Study Material

• The Centrally Sponsored I.E.D.S.S., The scheme aims to enable all students with disabilities completing eight years of elementary schooling an opportunity to complete four years of secondary schooling (classes IX to XII) in an inclusive and enabling environment.

• It provides educational opportunities and facilities to students with disabilities in the general education system at the secondary level (classes IX to XII) and supports the training of general school teachers to meet the needs of children with disabilities at the secondary level.

• The objectives of the scheme will be to ensure that:

• Every child with a disability will be identified at the secondary level and his educational need assessed

• Every student in need of aids and appliances, assistive devices, will be provided the same

• All architectural barriers in schools are removed so that students with disability have access to classrooms, laboratories, libraries, and toilets in the school

• Each student with a disability will be supplied learning material as per her requirement

• All general school teachers at the secondary level will be provided basic training to teach students with disabilities within a period of three to five years Students with disabilities will have access to support services like the appointment of special educators, the establishment of resource rooms in every block

• Model schools are set up in every state to develop good replicable practices in inclusive education.

• Sarva Shiksha Abhiyan:

• Sarva Shiksha Abhiyan (SSA) is the Government of India's flagship programme for the achievement of Universalization of Elementary Education (UEE) in a time-bound manner, as mandated by the 86th amendment to the Constitution of India making free and compulsory Education to the Children of 6-14 years age group, a Fundamental Right.

• SSA is being implemented in partnership with State Governments to cover the entire country and address the needs of 192 million children in 1.1 million habitations.

• The programme seeks to open new schools in those habitations which do not have schooling facilities and strengthen existing school infrastructure through provision of additional classrooms, toilets, drinking water, maintenance grant and school improvement grants.

• Existing schools with inadequate teacher strength are provided with additional teachers, while the capacity of existing teachers is being strengthened by extensive training, grants for developing teaching-learning materials and strengthening of the academic support structure at a cluster, block and district level.

• SSA seeks to provide quality elementary education including life skills. SSA has a special focus on girl's education and children with special needs. SSA also seeks to provide computer education to bR&Dge the digital divide.

• Right to Education:

• The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE), is an Act of the Parliament of India enacted on 4 August 2009, which describes the modalities of the importance of free and compulsory education for children between 6 and 14 in India under Article 21a of the Indian Constitution.

Q65. Answer: (c) Rs. 28,750

Given:

A man buys a refrigerator at Rs. 22,000 and pays an additional Rs. 1,000 for transport and Rs. 2,000 for installation.

Formula Used:

profit% = (S.P - C.P)/C.P × 100

Calculation:

Let the selling price of the refrigerator be Rs. 'x'

=> cost price of refrigerator to man = (22000 + 1000 + 2000) = Rs. 25000

=> 15 = (x - 25000)/25000 × 100

=> 15 × 250 = (x - 25000)

=> 3750 = (x - 25000)

=> x = 28750

Therefore required selling price of the refrigerator = Rs. 28750

Q66. Answer: (c) Geographers

The correct answer is Geographers.

Key Points

• Geographers study the Earth and the distribution of its land, features, and inhabitants.

• They also examine political or cultural structures and study the physical and human geographic characteristics of regions ranging in scale from local to global

• Geographers typically do the following:

• Gather geographic data through field observations, maps, photographs, satellite imagery, and censuses
• Conduct research via surveys, interviews, and focus groups
• Create and modify maps or other visual representations of geographic data
• Analyze the geographic distribution of physical and cultural characteristics and occurrences
• Collect, analyze, and display geographic data with Geographic Information Systems (GIS)
• Write reports and present research findings
• Assist, advise, or lead others in using GIS and geographic data
• Link geographic data with data pertaining to a particular specialty, such as economics, the environment, health, or politics

Additional Information
• Historians: A historian is a person who specializes in the study of history, and who writes books and articles about it.
• Biographers: A biographer is a writer who specializes in true stories of other people's lives. The finished books that biographers publish are called biographies.

Q67. Answer: (b) 11

Calculation:
=> 143 = 11 × 13
=> 77 = 7 × 11
=> 121 = 11 × 11
Therefore clearly 11 is the highest common factor

Q68. Answer: (a) 20

Here the logic is:
Hence, '20' is the correct answer.

Q69. Answer: (c) Plain glass

The correct answer is Plain Glass.
Key Points

Energy Converter	Main Points
Plain Glass	It is transparent and no polish on any side of the glass. It is not an energy converter.
Solar Panel	It converts sunlight to electrical energy.
Steam Engine	It converts the heat energy of steam to mechanical energy.
Electric Iron	It converts electrical energy to heat energy.

Q70. Answer: (c) 288

Given:
Numbers are 24, 96 and 36.
Calculation:
24 = $2^3 \times 3$
96 = 2^5 × 3
36 = $2^2 \times 3^2$
Therefore Required LCM = $2^5 \times 3^2 = 288$

Q71. Answer: (d) Storage medium

The correct answer is Storage medium.
Key Points
• CD-ROM, an abbreviation of compact disc read-only memory, type of computer memory in the form of a compact disc that is read by optical means.
• A CD-ROM drive uses a low-power laser beam to read digitized (binary) data that has been encoded in the form of tiny pits on an optical disk.
• The drive then feeds the data to a computer for processing.

YourMockTest.com — Free Study Material

• With a storage capacity of 680 megabytes, the CD-ROM found rapid commercial acceptance as an alternative to so-called floppy disks.

• Unlike conventional magnetic storage technologies (e.g., tapes, floppy disks, and hard disks), CDs and CD-ROMs are not recordable hence the tag “read-only.”

Additional Information

• MP3 File:

• MP3 (MPEG-1 Audio Layer-3) is a standard technology and format for compressing a sound sequence into a very small file while preserving the original level of sound quality when it is played.

• MP3 provides near CD-quality audio.

• It is one of the most common music file types.

• Microprocessor:

• A microprocessor is an electronic component that is used by a computer to do its work.

• It is a central processing unit on a single integrated circuit chip containing millions of very small components including transistors, resistors, and diodes that work together.

• Magnetic Disk:

• A magnetic disk is a storage device that uses a magnetization process to write, rewrite, and access data.

• It is covered with a magnetic coating and stores data in the form of tracks, spots, and sectors.

• Hard disks, zip disks, and floppy disks are common examples of magnetic disks.

Q72. Answer: (a) Mother

Symbol representation:

The family tree diagram is shown below:

Hence, ‘Mother’ is the correct answer.

Q73. Answer: (a) Matheran Hill Railway

The correct answer is Matheran Hill Railway.

Important Points

• Matheran Hill Railway:

• It is a Narrow Gauge heritage railway station in Maharashtra.

• It is administrated under the central Railway.

• The Matheran Hill Railway is on the tentative list of UNESCO World Heritage Sites.

Additional Information

• Three mountain railways of India are on the list of UNESCO World Heritage Site.

• Darjeeling Himalayan Railway, West Bengal

• Nilgiri Mountain Railway, Tamil Nadu

• Kalka Shimla Railway, Himachal Pradesh

Key Points

• Total 40 Unesco World Heritage Sites is in India.

• Cultural- 32

• Natural- 7

• Mixed- 1

Q74. Answer: (a) 4

The correct answer is 4.

Key Points

• Conditions for Recognition as a National Party:

• If it secures six percent of valid votes polled in any four or more states at a general election to the Lok Sabha or to the legislative assembly; and, in addition, it wins four seats in the Lok Sabha from any state or states.

• If it wins two percent of seats in the Lok Sabha at a general election; and these candidates are elected from three states.

• If it is recognised as a state party in four states.

Additional Information

• For recognition as a State Party, any one of five conditions needs to be satisfied:

• Two seats plus a 6% vote share in the last Assembly election in that state.

• One seat plus a 6% vote share in the last Lok Sabha election from that state.

• 3% of the total Assembly seats or 3 seats, whichever is more.
• One of every 25 Lok Sabha seats (or an equivalent fraction) from a state.
• An 8% state-wide vote share in either the last Lok Sabha or the last Assembly polls.

Q75. Answer: (c) A is true, but R is false

It is true that nowadays, more people opt for fast food but the reason is not the complete explanation behind the assertion because some fast food prices are even more expensive than a normal healthy meal.

Hence, ' A is true, but R is false' is the correct answer.

Q76. Answer: (d) Virat Kohli

The correct answer is Virat Kohli.

Key Points

• Virat Kohli was named the captain of the T20 WC 2016 team.
• The team includes four England players and two West Indies players.
• Jasoy Roy and Quinton de Kock were named the openers in the playing XI while Kohli, Joe Root, Jos Buttler form the middle order of the team.
• New Zealand's captain Kane Williamson has been named captain of an ICC Men's Cricket World Cup 2019 team.

Additional Information

• International Cricket Council:
• It is the world governing body of cricket.
• It was founded as the Imperial Cricket Conference in 1909 by representatives from Australia, England, and South Africa.
• The ICC has 104 member nations currently: 12 Full Members that play Test matches and 92 Associate Members.

Q77. Answer: (a) 30

Here the logic is:

ADC → 1 × 4 × 3 = 12

Similarly,

BEC → 2 × 5 × 3 = 30

Hence, '30' is the correct answer.

Q78. Answer: (c) PLCA

Let's unjumbled the given options:

AFMR => FARM

NDAL => LAND

PLCA => CLAP => Not related to agriculture rest three words are related to agriculture

TLPNA => PLANT

Hence, 'PLCA' is the correct answer.

Q79. Answer: (c) 7.5

Given:

The simple interest at R % p.a. on a certain principal P is (9/16)th of P and R is equal to the number of years (N).

Formula Used:

Simple interest = (Principal × time × rate)/100

Calculation:

=> 9P/16 = P × N × N/100

=> N^2= 900/16

=> N = 30/4 = 7.5 years

Therefore required number of years = 7.5 years

Q80. Answer: (b) 5.76

Calculation:

Given expression is 40% of 3/5th of 24

=> 40/100 × 3/5 × 24

=> 288/50

=> 5.76

Therefore required value = 5.76

Q81. Answer: (b) Chandigarh

The correct answer is Chandigarh.

Key Points

• The Architectural Work of Le Corbusier comprises 17 locations designed by the renowned French-Swiss architect, who is seen as one of the pioneers of modern architecture.

• Chandigarh Capitol Complex, located in Chandigarh city in India.

• It is a UNESCO World Heritage Sites.

Additional Information

• UNESCO World Heritage Sites:

• A World Heritage Site is a place that is listed by UNESCO for its special cultural or physical significance.

• The list of World Heritage Sites is maintained by the international 'World Heritage Programme', administered by the UNESCO World Heritage Committee.

• The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection, and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity.

• This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972.

• India has 44 world heritage sites that include 36 Cultural properties, 7 Natural properties, and 1 mixed site.

Q82. Answer: (a) Assam

The correct answer is Assam.

Important Points

State Animals, Birds, Trees and Flowers of India:

State/UT	Animal	Bird	Tree	Flower
Andhra Pradesh	Blackbuck	Rose-ringed Parakeet	Neem	Jasmine
Arunachal Pradesh	Mithun	Great hornbill	Hollong	Lady slipper orchid
Assam	One-horned rhinoceros	White-winged wood duck	Hollong	Foxtail orchids
Bihar		House sparrow	Peepal	Marigold
Goa	Gaur	Flame throated bulbul	Matti	Frangipani
Gujarat	Asiatic lion	Greater flamingo	Mango	Marigold
Haryana	Blackbuck	Black francolin	Peepal	Lotus
Himachal Pradesh	Snow leopard	Western tragopan	Deodar	Rhododendron
Jammu & Kashmir	Hangul	Black-necked crane	Chinar	Lotus
Jharkhand	Elephant	Koel	Sal	Palash
Karnataka	Elephant	Indian roller	Sandal	Lotus
Kerala	Elephant	Great hornbill	Coconut	Golden shower tree
Madhya Pradesh	Swamp deer	Asian paradise flycatcher	Banyan	Parrot tree
Maharashtra	Giant squirrel	Yellow-footed green pigeon	Mango	Jarul
Manipur	Sangai	Mrs. Hume's pheasant	Toon	Shirui lily
Meghalaya	Clouded leopard	Hill myna	White teak	Lady slipper orchid
Mizoram	Serow	Mrs. Hume's pheasant	Ironwood	Red vanda
Nagaland	Mithun	Blyth's tragopan	Alder	Rhododendron
Odisha	Sambar	Indian roller	Peepal	Ashoka

YourMockTest.com — Free Study Material

Puducherry	Squirrel	Asian koel	Vilva tree	Cannonball
Punjab	Blackbuck	Northern goshawk	Sheesham	Gladiolus
Rajasthan	Camel	Great Indian Bustard	Khejri	Rohira
Sikkim	Red panda	Blood pheasant	Rhododendron	Noble orchid
Tamil Nadu	Nilgiri tahr	Emerald dove	Palmyra palm	Kandhal
Telangana	Deer	Indian roller	Jammi	Tangedu
Tripura	Phayre's langur	Green imperial pigeon	Agar	Nageshwar
Uttarakhand	Musk deer	Himalayan monal	Burans	Brahm kamal
Uttar Pradesh	Swamp deer	Sarus crane	Ashok	Palash
West Bengal	Fishing cat	White-breasted kingfisher	Chatian	Shephali

Q83. Answer: (d) Only conclusion II follows

In the statement, it is mentioned that life has become very difficult without a mobile phone. Hence, conclusion II is true because it is said that mobile has become an integral part of life but no information regarding the increasing number of subscribers is mentioned in conclusion I. Hence, 'only conclusion II follows' is the correct answer.

Q84. Answer: (d) Both statements I and III are sufficient.

From statement I → At present, X is 3 times as old as Y → Suppose Y present age is - Y then X present age is - 3Y

From statement III → After 5 years Y age is - (Y + 5) and X age is - (3Y + 5)

Now, the age of X will be 2 1/2 times that of Y, we get the equation - 3Y + 5 = 5/2 × (Y + 5)

3Y + 5 = 5/2 × Y + 5/2 × 5

2 × (3Y + 5) = 5Y + 25

6Y + 10 = 5Y + 25

6Y - 5Y = 25 - 10

Y = 15

So, Y present age is 15 years

Hence, 'both statements I and III are sufficient' is the correct answer.

Q85. Answer: (d) Moon

Here the logic is:

Jupiter : Europa → Europa is one of the galilean moons of Jupiter and Jupiter is the fifth planet from the Sun and the largest in the Solar System.

Similarly,

Earth: ? → The Moon is Earth's only natural satellite and the fifth largest moon in the solar system.

Hence, ' Earth : Moon' is the correct answer.

Note: the question has been modified as it was incomplete.

Q86. Answer: (d) 4 : 1

Given:

Car I covers a distance in a certain time. Car II takes double the time to cover half the same distance.

Formula Used:

Distance = speed × time

Calculation:

Car II takes double the time to cover half the same distance, so Car II will take quadruple (× 4) the time to cover the same distance.

when distance remains constant, then speed is indirectly proportional to time.

=> speed of Car I/speed of Car II = time taken by Car II/time taken by Car I

=> speed of Car I/speed of Car II = 4/1

Therefore required ratio = 4/1

Q87. Answer: (a) 27

Here the logic is:

B : 8 → 2 : 2^3→ 2 : 8

Similarly,

C : ? → 3 : 3^3→ 3 : 27

Hence, 'C : 27' is the correct answer.

Q88. Answer: (b) Afforestation

The correct answer is Afforestation.

Key Points

• Afforestation:

• Afforestation is the establishment of a forest or stands of trees in an area where there was no previous tree cover.

• Many government and non-governmental organizations directly engage in programs of afforestation to create forests, increase carbon capture.

• It enables investors to plant the kind of trees according to demand, advancing the quick propagation of particular sorts of trees.

Important Points

• Five Major Environment problems:

• Genetic modification of food

• Water (Acid Rain)

• Loss of Biodiversity

• Deforestation

• Climate change

Q89. Answer: (a) Supersonic

The correct answer is Supersonic.

Key Points

• Supersonic:

• It is the speed of an object that exceeds the speed of sound.

• Supersonic describes things that can travel faster than the speed of sound.

• Infrasonic:

• Below the audibility range.

• Ultrasonic:

• Above the audibility range.

• Audible Sound 20 Hz to 20 kHz for humans.

Q90. Answer: (b) PRQS

Here the logic is:

Hence, 'PRQS' is the correct answer.

Q91. Answer: (c) Polarity cannot be changed.

The correct answer is Polarity cannot be changed.

Key Points

• Electromagnets:

• The electromagnet is a device consisting of a core of magnetic material surrounded by a coil.

• An electric current is passed through this coil to magnetize the core.

• This is made out of a coil of wire.

• This coiled wire technique is more effective in producing a magnetic field than just a wire running straight.

• This effect can be strengthened by winding a wire tightly around a powerful core, made of magnetic material.

• It is a temporary type of magnet.

• Ferromagnetic materials are attracted by magnets.

• Like poles repel each other while unlike poles attract each other.

• Its strength can be changed.

• Its strength varies with the air gap between its poles.

YourMockTest.com — Free Study Material

Q92. Answer: (d) the air we breathe

The correct answer is The air we breathe.

Key Points

• Breathing Air

• Air is the necessary component of our breath.

• Air has a mixture of lots of gases.

• The main components of the air are Nitrogen and Oxygen.

• The rest of the components are carbon dioxide, helium, argon, ozone, and hydrogen.

Additional Information

Components in the Breathing Air

Gases	Percentage
Nitrogen	78%
Oxygen	21%
Argon	0.93%
Carbon Dioxide	0.03%
Other Gases	0.04%

Q93. Answer: (d) 22 cm

Given:

The areas of two similar triangles are 169 sq.cm. and 121 sq.cm and the longest side of larger triangle is 26 cm

Concept Used::

if two triangles are similar then their corresponding angles are congruent and corresponding areas are in proportion of square of their respective sides.

Calculation:

Let the length of the longest side of the other triangle is 'x'

=> $169/121 = 26^2/x^2$

=> $x^2 = 121 \times 26^2/169$

=> $x = 11 \times 26/13$

=> $x = 22$ cm

Therefore required length of the longest side of the other triangle = 22 cm

Q94. Answer: (a) 60

Given:

If a student's marks were increased by 25%, he would have scored75 in his test

Calculation:

Let the actual score of the man be 'x'

=> $x \times 125/100 = 75$

=> $x = 75 \times 4/5$

=> $x = 60$

Therefore required actual score of the man = 60

Q95. Answer: (b) =

The correct answer is =.

Key Points

• The formula in MS Excel:

• In Excel, you can use formulas to calculate results.

• Formulas can be short and simple, such as adding two numbers, or long and complex.

• Formulas can include one or more of Excel's built-in functions, and advanced users can even create their own functions.

YourMockTest.com — Free Study Material

Q96. Answer: (a) 2

Given:

The mean of distribution 10, 8, 15, 12, K, 25 is 12

Concept

Mean = Sum of all numbers/Total numbers

Calculation:

(10 + 8 + 15 + 12 + K + 25)/6 = 12

=> 70 + K = 72

=> K = 2

Therefore Required value of K = 2

Q97. Answer: (a) 6

Here the logic is:

Hence, '6' is the correct answer.

Q98. Answer: (a) Fibre crops

The correct answer is Fibre Crops.

Key Points

• Fibre Crops:

• Fibre crops are plants that are deliberately grown for the production of fibre for textile.

• Cotton, jute, kenaf, industrial hemp, sun hemp, and flax are among the well-known fibre crops.

• Lignocellulosic agricultural by-products such as stalks, stems, straws, hulls, and cobs are a cheap source for cellulose fibres Bouf.

• Some of these also have a promising future as agricultural biomass that can be converted to ethanol.

• In addition, agricultural waste also produces large amounts of biomass classified as natural fibres, which are used for building materials, as a decorative product and as a versatile raw product.

Additional Information

• Coffee:

• Coffee is a beverage brewed from the roasted and ground seeds of the tropical evergreen coffee plant of African origin.

• Though coffee is the basis for an endless array of beverages, its popularity is mainly attributed to its invigorating effect.

• The invigorating is produced by caffeine, an alkaloid present in coffee.

• Alongside water, tea, and coffee is one of the three most-popular beverages in the world and one of the most-profitable international commodities.

• Two species of the coffee plant, Coffea arabica and C. canephora supply almost all of the world's consumption.

• Oil Seeds:

• Oilseeds contain high concentrations of energy and moderate concentrations of protein and fibre.

• Because of this, oilseeds are frequently used as an energy source in the diets of lactating dairy cows.

• Meals from oilseeds are used as protein supplements for all classes of dairy cattle.

• Processing whole oilseeds alter the site and extent of nutrient digestion and the production response when fed to lactating dairy cows.

• The type of processing used to extract the oil from the oilseed influences the resulting nutrient content of the meal.

• Sugarcane:

• Sugarcane is a perennial grass of the family Poaceae, primarily cultivated for its juice from which sugar is processed.

• The plant is also grown for biofuel production, especially in Brazil, as the canes can be used directly to produce ethyl alcohol (ethanol).

• Most of the world's sugarcane is grown in subtropical and tropical areas.

• The by-products from cane sugar processing, namely the straw and bagasse (cane fibres), can be used to produce cellulosic ethanol, a second-generation biofuel.

• Other sugarcane products include molasses, rum, and cachaça (Brazilian alcohol), and the plant itself can be used as thatch and as livestock fodder.

Q99. Answer: (c) 1764

Calculation:

=> LCM (4, 9, 14) = 252

YourMockTest.com — Free Study Material

going as per the option, 1764 is only perfect square which is divisible by 252 or LCM of (4, 9, 14)

Therefore required least square number = 1764

Q100. Answer: (d) 6

The correct answer is 6.

Key Points

Conditions for a State Political Party:

• If it secures 6% of the valid votes polled in the state at a general legislative assembly election of the state concerned and it wins 2 seats in the assembly of the state concerned.

• If it secures 6% of the valid votes polled in the state at a general election to the Lok Sabha from the state concerned and in addition, it wins 1 seat in the Lok Sabha from the state concerned.

• If it wins 3% of seats in the legislative assembly at a general election to the legislative assembly of the state concerned or 3 seats in the assembly, whichever is more.

• If it wins 1 seat in the Lok Sabha for every 25 seats or any fraction thereof allotted to the state at a general election to the Lok Sabha from the state concerned.

• If it secures 8% of the total valid votes polled in the state at a General Election to the Lok Sabha from the state or to the legislative assembly of the state.

• These all conditions were added in 2011.

Q101. Answer: (a) Mundaka Upanishad

The correct answer is Mundaka Upanishad.

Key Points

Mundaka Upanishad:

• Mundaka Upanishad is one of the types of Upanishad.

• The word Upanishad means sitting down near someone and denotes a student sitting near his guru to learn.

• These are one of four genres of texts that together constitute each of the Vedas, the sacred scriptures of most Hindu traditions.

• Mundaka Upanishad is embedded in the Atharva Veda.

• The Mundaka Upanishad contains three Mundakams (parts), each with two sections.

• The first Mundakam defines the science of "Higher Knowledge" and "Lower Knowledge".

• The second Mundakam describes the nature of the Brahman, the Self, the relation between the empirical world and the Brahman.

• Satyamev Jayte is taken from this Upanishad.

Additional Information

Agam Literature:

• Agam literature consists of many texts, which are the sacred books of the Jain religion.

• They are written in the Ardha-magadhi, a form of Prakrit language.

Tripitaka:

• The Tripitaka is the traditional term for the Buddhist scriptures.

• After the death of Lord Buddha, his teachings were compiled by his disciples at a council of “elders” or senior monks at Vesali.

• These compilations were known as Tipitaka.

• Pitaka means baskets to hold different types of texts.

• The Vinaya Pitaka included rules and regulations for those who joined the Sangha or monastic order.

• The Sutta Pitaka included Buddha’s teachings.

• The Abhidhamma Pitaka dealt with philosophical matters.

Bible:

• Bible is the sacred scriptures of Judaism and Christianity.

• The arrangements of the Jewish and Christian canons differ considerably.

• The Christian Bible consists of the Old Testament and the New Testament.

• The Hebrew Bible includes only the books known to Christians as the Old Testament.

YourMockTest.com – Free Study Material

Q102. Answer: (c) 1953

The correct answer is 1953.

Key Points

• States Reorganization Commission:

• State Reorganization was constituted by the Government of India on 29 December 1953.

• It was constituted to look into the matter of redrawing the boundaries of States.

• It was constituted to resolve the matter of the language-based states.

• The State reorganization commission consisted of H N Kunzru, Fazal Ali, and K M Panikkar.

• Andhra Pradesh was the first state of Independent India formed on a linguistic basis.

Q103. Answer: (d) 41

Here the logic is:

Letter	A	B	C	D
Symbol	•	•	×	÷

Changed all the letters by symbols and by applying BODMAS rule,

9 + 20 × 12 ÷ 6 - 8 → 9 + 20 × 2 - 8 → 9 + 40 - 8 → 41

Hence, '41' is the correct answer.

Q104. Answer: (c) plants and animals

The correct answer is plants and animals.

Key Points

• Flora Meaning:

• The term flora in Latin means "Goddess of the Flower."

• Flora is a collective term for a group of plant life found in a particular region.

• Flora is classified and differentiated based on many factors. The best one among them is the area in which they grow or are found.

• Some grow in desert regions or in water, some are found in hilly areas while some are endemic to a specific geographic location.

• According to the place at which they grow, they have adaptations also. For example, Cactus plants are naturally seen in deserts. They have adaptations like modified leaves or prickles to preserve water and protect themselves from predators.

• The agricultural flora consists of plants cultivated by men for their use.

• Horticulture is the practice of growing ornamental and decorative flowers which are also known as garden flora.

• Fauna Meaning:

• Fauna represents the animal life indigenous to a region.

• As per Roman mythology, Fauna or "Faunus" is the name of the goddess of fertility.

• The animal kingdom comprises a variety of animal life forms. Hence the classification of fauna is much more complex than the floral division. Therefore, for ease of classification:

• Birds are categorized in the name Avifauna

• Fishes under Pisci Fauna

• Microorganisms including bacteria and viruses are generally considered under the animal kingdom, they are known as Microfauna.

• All unknown and undiscovered animals are named as cryptofauna.

Q105. Answer: (a) Colloidal

The correct answer is Colloidal.

Key Points

• Features of Liquids:

• Liquids do not have a definite shape.

• Liquids have fixed volumes.

• They can change their shape.

• Their intermolecular force of attraction is less than solids.

• The kinetic energy of its particles is more than solids.

• Features of Gaseous:

• They can take any shape.
• Gases neither have a definite shape nor have a fixed volume.
• Their intermolecular force of attraction is least.
• The kinetic energy of its particles is maximum.
• Features of Solids:
• Solids have fixed volumes.
• Solids have a definite shape and distinct boundaries.
• Negligible compressibility.
• Their intermolecular force of attraction is maximum.
• The kinetic energy of its particles is minimum.

Q106. Answer: (d) 70%

Given:

150 people from a locality commute daily for work. Out of them 25 travel only by bus, 40 only by train, 20 take both taxi and train, 30 use only private cars, 25 take bus and taxi and the remaining travel only by taxi.

Calculation:

=> number of people who use only taxi = 150 - (25 + 40 + 20 + 30 + 25) = 10

=> number of people who use only one mode of transport = number of people who use only bus + number of people who use only train + number of people who use only taxi + number of people who use only private cars

=> number of people who use only one mode of transport = 25 + 40 + 10 + 30 = 105

Therefore required percentage of people who use only one mode of transport = 105/150 × 100 = 70%

Q107. Answer: (a) 55

Given:

150 people from a locality commute daily for work. Out of them 25 travel only by bus, 40 only by train, 20 take both taxi and train, 30 use only private cars, 25 take bus and taxi and the remaining travel only by taxi.

Calculation:

=> number of people who use taxi to commute = number of people who use only taxi + number of people who use both taxi and train + number of people who use both bus and taxi

=> number of people who use only taxi = 150 - (25 + 40 + 20 + 30 + 25) = 10

=> number of people who use taxi to commute = 10 + 20 + 25 = 55

Therefore required number of people who use taxi to commute = 55

Q108. Answer: (a) Jupiter

The correct answer is Jupiter.

Key Points

• NASA's Solar-powered Juno mission related to Jupiter.
• It was launched on Aug 5, 2011, from Cape Canaveral, Florida.
• It aims to cover the origins, structure, atmosphere, and magnetosphere of Jupiter to learn more and to look for a possible solid planet.
• Juno's name comes from Greek and Roman mythology.

Additional Information

• NASA: National Aeronautics and Space Administration
• It is the United States government agency responsible for U.S. space exploration.

Q109. Answer: (b) Semiconductor

The correct answer is semiconductor.

Important Points

• Semiconductor, any of a class of crystalline solids intermediate in electrical conductivity between a conductor and an insulator.
• Germanium, Silicon, and Gallium arsenide are commonly used semiconductors.
• Semiconductor shows like an insulator at 0 Kelvin, on increasing the temperature.
• Two types of Semiconductor
• Intrinsic Semiconductor
• Extrinsic Semiconductor

YourMockTest.com — Free Study Material

Additional Information

• Conductor:

• It is a material that allows electrons to flow freely from particle to particle.

• it has free electrons on its surface which allow current to pass through easily.

• Insulator:

• It is a material or substance that does not allow current to flow through them.

• Examples- Wood, cloth, glass, mica.

Q110. Answer: (d) 7.2 kmph

Given:

A person walks through a distance of 600 m in 5 minutes.

Formula Used:

distance = speed × time

Calculation:

=> distance travelled by that person = 600 m = 0.6 km

=> time taken by that person = 5 minutes = 1/12 hr

Therefore required speed of person = 0.6/(1/12) = 7.2 kmph

Q111. Answer: (a) 250

Given:

A pack of chocolates is divided between three friends, Amar, Akbar and Anthony in the ratio 3:4:5 respectively and Akbar gets 50 chocolates more than Amar

Calculation:

Let the number of chocolates received by Amar, Akbar and Anthony be 3x, 4x and 5x respectively

=> 4x = 3x + 50

=> x = 50

=> number of chocolates received by Anthony = 5x = 5 × 50 = 250

Therefore required number of chocolates received by Anthony = 250

Q112. Answer: (b) 2 : 3

Given:

A portion inside a rectangle of length 5 m and breadth 2 m is shaded in the form of a square of side 2 m

Calculation:

=> area of rectangle = 5 × 2 = 10 m^2

=> area of shaded square = 2 × 2 = 4 m^2

=> area of unshaded portion = (10 - 4) = 6 m^2

Therefore required ratio of the area = 4/6 = 2 : 3

Q113. Answer: (d) National Institution for Transforming India

The correct answer is the National Institution for Transforming India.

Key Points

• NITI Aayog:

• NITI Aayog is not a constitutional body.

• It was established on January 1, 2015.

• It is formed in place of the Planning Commission.

• The ex-officio president of this is the Prime Minister.

• It is the premier policy 'Think Tank' of the Government of India, providing both directional and policy inputs.

Important Points

• The NITI Aayog:

• Formed: 1 January 2015

• Headquarters: New Delhi

• Chairman - Narendra Modi

• Vice-Chairman - Dr. Suman Bery

YourMockTest.com — Free Study Material

• CEO - Sh. BVR Subrahmanyam
• Full-Time Members:
• Shri V.K. Saraswat
• Prof. Ramesh Chand
• Dr. V. K. Paul

Q114. Answer: (b) Eastern

The correct answer is Eastern.

Key Points

• Bhutan- It is a country of south-central Asia, located on the eastern ridges of the Himalayas.
• The official language is Dzongkha.
• It is bordered by the Tibet Autonomous Region of China in the north, the Chumbi Valley of Tibet, and is barely separated from Nepal, from the Indian state of Sikkim in the west and the Indian states of Assam, West Bengal, and Arunachal Pradesh in the south, east, and southwest.
• Bhutan is geopolitically in South Asia and is the region's second-least-populous nation after the Maldives.
-

Q115. Answer: (d) 67.5

Given:

A car covers a certain distance in 45 minutes at a speed of 60 kmph.

Formula Used:

distance = speed × time

Calculation:

=> distance covered by car in 45 minutes = 60 × 45/60 = 45 km

This distance has to be covered 5 minutes earlier i.e. in 40 min

Therefore required speed = 45/(40/60) = 67.5 kmph

Q116. Answer: (b) Sri Lanka

The correct answer is Sri Lanka.

• Sri Lanka was officially certified as malaria-free by WHO in September 2016.
• This achievement was realized despite the challenges posed by a protracted 30-year internal armed conflict. Sri Lanka was officially certified as malaria-free by WHO in September 2016.
• The Maldives was the first country in the Region to drive malaria cases to zero.

Key Points

• Malaria is caused by a parasite known as Plasmodium.
• Mosquitoes Anopheles mosquitoes
• The most affected part of the human body is the lungs.

Additional Information

• WHO- World Health Organization
• Founded- 7 April 1948
• Headquarters- Geneva, Switzerland

Q117. Answer: (b) 12

Sign	**×**	**÷**
Meaning	÷	×

Signs are interchanged and by applying BODMAS rule,

45 × 0.4 - 21 ÷ 3 + 1

= 45 × 0.4 - 7+ 1

=18 - 7 + 1

=19 - 7

= 12

Hence, ‘12’ is the correct answer.

Q118. Answer: (d) Adult franchise

The correct answer is Adult franchise.

Key Points

• Adult Franchise means all adult citizens of the country should have the right to vote without any discrimination of class, caste, religion, or gender.

• Article 326 defines a universal adult franchise as the basis for elections to all levels of the elected government.

• In a democracy, a universal adult franchise is important, as it is based on the idea of equality.

Additional Information

• Child Marriage:

• It is defined as a marriage of a girl or boy before the age of 18 and refers to both formal marriages and informal unions in which children under the age of 18 live with a partner as if married.

• Child marriage affects both girls and boys, but it affects girls disproportionately, especially in South Asia.

• Dowry system:

• It refers to the durable goods, cash, and real or movable property that the bride's family gives to the bridegroom, his parents, and his relatives as a condition of the marriage.

• Untouchability:

• It is the practice of ostracising a minority group by segregating them from the mainstream by social custom or legal mandate.

• The term is most commonly associated with the treatment of the Dalit communities in the Indian subcontinent who were considered "polluting".

Q119. Answer: (d) Rs. 6,100

Given:

Principal = Rs. 6400, rate = 25% p.a., time = 3 years

Formula Used:

Compound interest = Principal × [(1 + rate/100)n - 1]; n = time period

Calculation:

=> Compound interest = 6400 × [(1 + 25/100)3 - 1]

=> Compound interest = 6400 × [125/64 - 1]

=> Compound interest = 6400 × 61/64

=> Compound interest = 6100

Therefore required compound interest = 6100

Q120. Answer: (a) Domain Name System

The correct answer is the Domain Name System(DNS).

Key Points

The Domain Name System (DNS):

• It is a hierarchical and decentralised naming system for devices, utilities, or other resources linked to the Internet or a private network.

• It associates separate details with domain names assigned to each of the participating organisations.

• Most notably, it converts more conveniently memorised domain names into the numerical IP addresses required to find and recognise web networks and devices with underlying network protocols.

• Since 1985, the Domain Name Scheme has been a core component of the functionality of the Internet by offering an internationally dispersed directory infrastructure.

• The Domain Name System assigns responsibility for assigning and mapping domain names to Internet providers by designating authoritative domain name servers for each domain.

• The DNS protocol uses two types of DNS messages, queries and responses, all of which have the same format. Each message consists of a header and four sections: a question, a reply, an authority and an additional space.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com — Free Study Material