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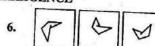
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PART – I GENERAL INTELLIGENCE

Directions: In Question Nos. 1 to 7, find the odd number / letters / figure / number pair from the given alternatives.

- 1. (A) Respiration
 - (B) Digestion
 - (C) Disease
 - (D) Blood pressure
- 2. (A) AZBY
 - (B) CXDW
 - (C) GTHR
 - (D) EVFU
- 3. (A) BCDF
 - (B) AEIO
 - (C) GHTK
 - (D) RNWX
- 4. (A) 9
- (C) 126
- (B) 28 (D) 64
- 5. (A) 24-81
 - (B) 33-91
 - (C) 28-44
 - ---
 - (D) 20-11



- (A) (B)
 - N Z B

(C)

(D)

(D)

(A) (B) (C)

Directions: (Question Nos. 8-9) Which one of the given responses can be added to all the given letters to make meaningful words?

- 8. (1) Character
 - (2) Story
 - (3) Editing
 - (4) Plot
 - (5) Publishing
 - (A) 1, 2, 3, 4, 5
 - (B) 4, 1, 2, 5, 3
 - (C) · 1, 4, 3, 2, 5
 - (D) 4, 1, 2, 3, 5
- 9. (1) Yarn
 - (2) Plant
 - (3) Saree
 - (4) Cotton
 - (5) Cloth
 - (A) 2, 1, 4, 5, 3
 - (B) 2, 4, 5, 1, 3
 - (C) 2, 4, 1, 5, 3
 - (D) 1, 2, 3, 5, 4



Directions: (Question No. 10) Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

- 10. _ab_a_bab__bbabb_
 - (A) bbbbaa
 - (B) ababbb
 - (C) aabaab
 - (D) bbaaba
- 11. A series of figures is given which can be grouped into classes. From the responses, select the groups into which the figures can be classified:



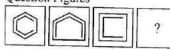
- (A) 124 | 369 | 578
- (B) 157 | 248 | 369
- (C) 136 | 257 | 149
- (D) 369 | 257 | 142

Directions: (Question Nos. 12 to 15). A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

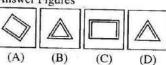
- 12. NOM, OPN, PQO, ?
 - (A) RQP
 - (B) OQP
 - (C) QRP
 - (D) RPO

- **13.** 62, 57, 68, 52, 74, 47, 80, <u>?</u>, <u>?</u> (A) 41,83

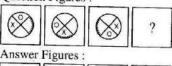
 - (B) 42, 86
 - (C) 43, 85
 - (D) 46, 88
- 14. Question Figures

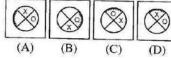


Answer Figures



Question Figures:





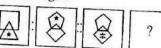
Directions: In Question Nos. 16 to 23, select the related letters / word / number / figure from the given alternatives.

- 16. den: lion::coop:?
 - (A) duck
 - (B) swan
 - (C) hen
 - (D) deer

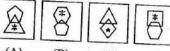


- 17. Anarchy: Lawlessness:: Anaemia:?
 - (A) Fearlessness
 - (B) Colourlessness
 - (C) Shapelessness
 - (D) Bloodlessness
- 18. Optician: Eyes:: Geriatric:?
 - (A) Young
 - (B) Needy
 - (C) Old Age
 - (D) New Born
- 19. BYDW: FUHS:: AZCX:?
 - (A) EVGT
 - (B) FVGT
 - (C) FVHT
 - (D) EVHT
- 20. BOQD: ERTG:: ANPC:?
 - (A) DQSF
 - (B) FSHU
 - (C) SHFU
 - (D) DSQF

- 21. 3:28::5:?
 - (A) 179
- (B) 126
- (C) 124
- (D) 125
- **22.** 23: 121::43::7
 - (A) 89
 - (B) 96
 - (C) 225
 - (D) 209
- 23. Question Figure



Answer Figures



(A)

(B)

(C)

(D)

- 24. In a row of boys, Sachin is 21st from the left and Rahul is 12th from right. On interchanging their places, Rahul becomes 17th from right. How many boys are there in a row?
 - (A) 36
 - (B) 38
 - (C) 37
 - (D) 35
 - (D) 33

SPACE FOR ROUGH WORK

112 MN 2

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- 25. A after arriving at a place of appointment on Sunday, found that he was 3 days earlier than 'B' who was 2 days late. If A had reached there on the following Thursday, how many days early or late would A have been?
 - (A) 2 days early
 - (B) 2 days late
 - (C) 3 days late
 - (D) 4 days early
- 26. In a group of 26 persons, 15 like tea, while 18 like coffee, there is none who dislikes both. The number of persons who like both tea and coffee is
 - (A) 9
 - (B) 7
 - (C) 5
 - (D) 3

Directions: In Question No. 27 from the given alternatives, select the word which cannot be formed using the letters of the given word.

- 27. ENGINEERING
 - (A) GINGER
 - (B) ENGINE
 - (C) NEARER
 - (D) RING

Directions: In Question Nos. 28 to 30, select the missing number from the given alternatives.

- 28. 7 8 4
 - 5 6 2
 - 35 48 ?
 - 47 62 14
 - (A) 5
 - (B) 6
 - (C) 7
 - (D) 8







- (A) 26
 - (B) 24
 - (C) 42
 - (D) 36
- 30. 32 (40) 12
 - 51 (36) 33
 - 67 (?) 55
 - (A) 24
 - (B) 20
 - (C) 18
 - (D) 12



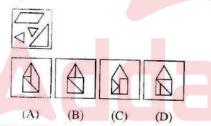
31. If 3 * 5 * 4 = 6, 2 * 7 * 5 = 7, 1 * 3 * 8 = 6, then what will be the value of 1 * 3 * 6?

- (A) 1
- (B) 5
- (C) 0
- (D) 8

32. If - stands for addition, + for division, + for multiplication and × for subtraction, then which of the following is correct?

- (A) $6 \times 3 + 9 \div 4 2 = 15$
- (B) $6 \div 3 9 \times 4 + 2 = 10$
- (C) $6+3 \div 9-4 \times 2 = 20$
- (D) $6 3 \times 9 + 4 \div 2 = 17$

33. Among the four answer figures, which one can be formed from the cut out pieces given below in the question figure?



34. Directions: Four views of a cube are given below. Study each view and answer the question given below them.

Question Figures



2 3

Question: In Figure 1, which symbol is below the square ?

Answer Figures



(A)

(B)

(D)

(C)

35. How many triangles are there in the given question figure?



(A) 10

(B) 8

(C) 12

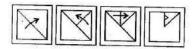
(D) 14



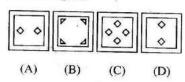


Directions: (Question No. 36) A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

36. Question Figures



Answer Figures

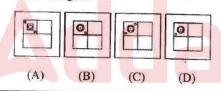


37. A transparent sheet with a pattern is given. How the pattern would appear when the sheet is folded at the dotted lines?

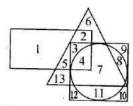
Question Figure



Answer Figures

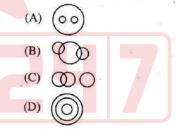


Directions: (Question No. 38) In the following diagram, rectangle represents Hindi Announcers, circle English Announcers, Square French Announcers and triangle represents German Announcers. Study the diagram.



- 38. Which area represents those announcers who can present programmes in Hindi, French and German only?
 - (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
- 39. Which of the following correctly illustrate the relationship among the classes:

Carrot, Food, Vegetable



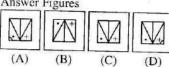


Directions: In Question Nos. 40 to 41, which answer figure will complete the pattern in the question figure?

Question Figure

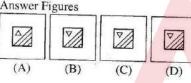


Answer Figures



41. Question Figure





Directions: In Question Nos. 42 to 43 from the given answer figures, select the one in which the question figure is hidden / embedded.

42. Question Figure



Answer Figures



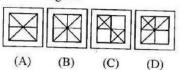




43. Question Figure



Answer Figures



44. If the letters given below are arranged to form a sensible word, what will be the last letter of the word?

LIBNARJ

- (A) R
- (B) L
- (C) N
- (D) J

Sanjay is standing facing south. He walks 10 km straight, turns right and walks another 10 km straight, turns left and walks 10 km straight and, finally turns left and walks 5 km to reach a hotel. Which direction is he facing now?

- (A) North
- (B) South
- (C) East
- (D) West



- 46. A and B start together from one point.

 They walk 10 km towards north. A turns left and covers 5 km whereas B turns right and covers 3 km. A turns left again and covers 15 km whereas B turns right and covers 15 km. How far is A from B?
 - (A) 18 km
 - (B) 10 km
 - (C) 5 km
 - (D) 8 km
- If "PRICE" is coded as <u>11</u> 9 <u>18</u> <u>24</u> <u>22</u>, then HIGH is coded as
 - (A) 19 20 18 19
 - (B) 17 18 20 17
 - (C) 8978
 - (D) 19 18 20 19
- 48. If 'EDUCATION' is coded as 2 D 5 C 1 T 3 4 N, how can 'AUTOMOBILE' be coded?
 - (A) 15T4M4B3L2
 - (B) 14T3M3B2L5
 - (C) 2U50103I4E
 - (D) 31T2M2B4L5

Directions: In Question Nos. 49 and 50, one / two statements are given followed by two conclusions / Assumptions I and II. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions / Assumptions, if any, follow from the given statements.

- 49. Statements: 1. All players are educated.
 - All educated are cultured So
 - Conclusions: I. All players are cultured.
 - II. All cultured persons are players.
 - (A) Only I follows.
 - (B) Only II follows.
 - (C) Both I and II follows.
 - (D) Neither I nor II follows.
 - O. Statement: Education of the masses leads to a steady loss of the hold of caste in the society.
 - Assumptions: I. There is a direct relation between educational progress and decline of casteism.
 - II. Casteism can make considerable contribution to society.
 - (A) Only assumption I is implicit.
 - (B) Only assumption II is implicit.
 - (C) Both assumptions I & II are implicit.
 - (D) Neither assumption I nor II is implicit.



	LANGUAGE
Directions: In Question Nos. 51 to 55, some of the sentences have errors and some have none. Find out which part of a sentence has an error and blacken the rectangle [] corresponding to the appropriate letter (A, B, C). If there is no error, blacken the rectangle [] corresponding to (D) in the Answer Sheet.	are suggested for each question. Choose the correct alternative out of the four and indicate it by blackering the suggested
51. The Secretary and the Manager (A)	56. He sat the table, writing a letter.
goes to London next week. No error. (B) (C) (D)	(A) across
52. I suggest you to become an engineer. (A) (B) (C)	(B) over (C) by
No error. (D)	(Ď) at
53. The courses in an autonomous college (A)	57. My sister me when I was ill.
are different from a non-autonomous college (B)	(A) called on
because of the freedom allowed to an autonomous college.	(B) called out (C) called off
No error.	(D) called in
(D)	
54. The jury was unanimous (A) (B)	58. The patient was so by the soft music that he cooperated with the
in the Verdict. No error. (C) (D)	doctor in spite of acute pain.
55. You will be suspended unless you	(A) carried over
(A) (B)	(B) carried away (C) carried on
do not pay your fees. No error. (C) (D)	(D) carried out
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	ENGLISH L	T – II ANGUAGE
som have sent rect appr erro	ections: In Question Nos. 51 to 55, no of the sentences have errors and some enone. Find out which part of a tence has an error and blacken the tangle [Directions: In Question Nos. 56 to 60, sentences are given with blanks to be filled in with appropriate words. Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate rectangle in the Answer Sheet.
51.	The Secretary and the Manager (A)	56. He sat the table, writing a letter.
	goes to London next week. No error. (B) (C) (D)	(A) across
180		(B) over
52.	I suggest you to become an engineer. (A) (B) (C)	(C) by
	No error. (D)	(D) at
53.	The courses in an autonomous college (A)	57. My sister me when I was ill.
	are different from a non-autonomous college (B)	(A) called on
	because of the freedom allowed to	(B) called out
	an autonomous college.	(C) called off
ž.	No error.	(D) called in
54.	The jury was unanimous (A) (B)	58. The patient was so by the soft
	in the Verdict. No error.	music that he cooperated with the
	(C) (D)	doctor in spite of acute pain.
		(A) carried over
55.	You will be suspended unless you (A) (B)	(B) carried away
0	do not pay your fees. No error.	(C) carried on
	(C) (D)	(D) carried out
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84. जब तक साहब नहीं आ जाते आप ग्रहण करें।	88 यश
	(A) सुयश
(A) आसन	(B) 'अ पमा न
(B) आसन्त	(C) अपयश
(C) बासन	
(D) राशन	(D) दुर्यश
	W 82
0	89. कृतज्ञ
85. भविष्य के प्रति जागरूक विद्यार्थी रात-भर	(A) कृपालु
रहते हैं।	(B) कडोर
(A) जागते	
(B) पढ़ते	(C) क्रोधी
(C) पड़ते	(D) কৃনঘ্ন
(D) लिखते	
(b) Kidii	90. प्रत्यक्ष
	(A) पीछे
निर्देश : प्रश्न संख्या 86 से 90 में दिये हुए प्रत्येक शब्द	W
का विलोम चुनने के लिए चार विकल्प प्रस्तावित हैं । उचित विकल्प का चयन कीजिए तथा उत्तर-	(B) परोक्ष
पुस्तिका में तदंनुसार काला कीजिए ।	(C) परीक्ष्य
	(D) सूक्ष्म
86. उत्थान	
	निर्देश : प्रश्न संख्या 91 से 95 में दिये हुए प्रत्येक शब्द
(A) स्थान	की वर्तनीं के लिए चार विकल्प दिये गए हैं । इनमें
(B) प्रस्थान	से केवल एक विकल्प में शब्द की शुद्ध वर्तनी है।
(C) वितान	उसे चुनिए तथा उत्तर-पुस्तिका में तदनुसार काला
(D) पतन	कीजिए।
87. हस्व	91. आदरनीय
(A) दीर्घ	(A) आदरनीय
· (B) स्थूल	(B) आदरणीय
(C) लघु	(C) आदर्नीय
(D) महत्तम	(D) आद्रणीय
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PART – III GENERAL AWARENESS

- 101. SQL in Computer Science stands for
 - (A) Sorted Query Language
 - (B) Structured Quick Language
 - (C) Structured Query Language
 - (D) Structured Quick Launch
- 102. Which of the following is <u>not</u> a part of the processor of a computer?
 - (A) ALU
 - (B) CU
 - (C) Registers
 - (D) RAM
- 103. Rotation of crop is essential
 - (A) for increasing the quantity of minerals.
 - (B) for increasing the quantity of proteins.
 - (C) for getting different kinds of crops.
 - (D) for increasing the fertility of the soil.
- 104. The major component in CNG is
 - (A) ethane
 - (B) propane
 - (C) butane
 - (D) methane
- 105. World Environment Day is celebrated on
 - (A) June 5
 - (B) February 28
 - (C) November 14
 - (D) July 15
- 112 MN 2

- 106. Earth is protected from ultra-violet radiation by means of
 - (A) Oxygen layer
 - (B) Ozone layer
 - (C) Nitrogen layer
 - (D) Carbon dioxide layer
- 107. The highest policy-making body in national planning in India is
 - (A) Administrative Reforms Commission
 - B) Finance Commission
 - (C) Inter-State Council
 - (D) National Development Council
- 108. Which one of the following is an example of fixed cost?
 - (A) Price of raw material
 - (B) Fuel and power charges
 - (C) Rent for building
 - (D) Wage for casual labour
- 109. The principle of population was propounded by
 - (A) Gardener
 - (B) Odum
 - (C) Darwin
 - (D) Malthus
- 110. The public, private, cooperative and joint sectors exist in a
 - (A) Mixed economy
 - (B) Socialist economy
 - (C) Communist economy
 - (D) Capitalistic economy

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111 The Chair Link	
111. The State which stands first in software exports from India is	116. Who spoke in Hindi for the first time in the UNO General Assembly?
(A) Maharashtra	
(B) Tamil Nadu	(A) Indira Gandhi
(C) Karnataka	(B) P. V. Narasimha Rao
(D) Andhra Pradesh	(C) Atal Bihari Vajpayee
444	(D) Rajiv Gandhi
112. Panchayats were given constitutional	
status by the amendment to	117. How many expeditions did Babur lead
the Constitution. (A) 75 th	to occupy Delhi ?
	(A) Three
(B) 74 th (C) 73 rd	(B) Four
(C) 73 rd	(C) Five
339 9	(D) Six
113. The President can declare a national	
emergency on	118. Which one of the following
(A) his own	monuments has the second largest
(B) the written recommendation of	dome in the world?
the Prime Minister	(A) Quwat-ul-Islam Masjid
(C) the basis of the report of the	
Governor of a State,	(B) Gol Gumbaz
(D) the written recommendation of	(C) Jamat Khana Masjid
the Union Cabinet.	(D) Alai Darwaza
114. Sarkaria Commission was set up for	Second and the second of the
reviewing the relations between	119. During whose reign Fa-Hien visited
(A) Centre and States	India ?
(B) Legislature and Executive	(A) Sri Gupta
(C) Executive and Judiciary	(B) Samudragupta
(D) The Prime Minister and the	(C) Chandragupta I
President	(D) Chandragupta II
115. To raise a discussion in the House on a	120. The slave king who got the title 'Lakh
matter of urgent public importance,	Baksh' was
which motion is used ?	(A) Iltutmish
(A) Censure (B) Adjournment	
(B) Adjournment (C) Calling attention	The second secon
(C) Calling attention (D) Cut motions	(C) Qutbudin Aibak
	(D) Balban
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121.		was the first Indian soldier to to use the greased cartridge?	126.	The largest number of Cotton Weaving mills are located in	
	(A)	Nana Saheb	100	(A) Tamil Nadu	
	(B)	Bahadur Shah		(B) Uttar Pradesh	20
	(C)	Mangal Pandey	100	(C) Maharashtra	
	(D)	Tantia Tope		(D) Gujarat	
81				(b) Gujaat	
122.	Vasco	da Gama discovered sea route	100		
	to		12/.	Hibernation phenomenon is noticed in	
	(A)	N. America		(A) Cosmonauts	3
	(B)	S. America		(B) Avians	
	(C)	India		(C) Mammalians	
	(D)	Australia	X =	(D) Amphibians	
123.	Tapti	river rises in mountains.	128.	Dengue is a	
	(A)	Eastern Ghat	No. of the last	(A) viral infection	
	(B)	Western Ghat		(B) fungal infection	
	(C)	Satpura	4 *	(C) bacterial infection	
*	(D)	Vindhya		(D) protozoan infection	4
				(b) protozoan infection	
124.		major goal of the Green lution has been to	129.	Cockroaches, prawns and crabs possess	
	(A)	Decrease the use of modern		(A) Simple eyes	
	1000	farm machinery.		(B) Compound eyes	
	(B)	Decrease Population growth.	1	(C) Parietal eyes	
	(C)	Increase agricultural output.	b = 3	(D) No eyes	
	(D)	Increase the number of traditional farms.			
125.		orld's most important renewable	130.	Bio-diesel, a kind of non-conventional source of energy, which is obtained from	
		y resource is		(A) Sugarcane	Se ^r
	(A)	Natural vegetation	2 "	Account to the contract of the	14
	(B)	Water		AND THE RESIDENCE AND THE PERSON OF THE PERS	
	(C)	Solar radiation		(C) Castor plant	
		Tidal waves	1 -	(D) Mustard plant	
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131.	Photosynthesis occurs	136.	The tides in the ocean are due to
	(A) only in leaves	12	(A) Wind over the Oceans
	(B) only in stems		(B) Gravitational pull of the Moon
	(C) in all green parts of plants		(C) Rotation of the Earth
	(D) in the roots		(D) Revolution of the Earth
		N. 10	
32.	Banana leaves on maturity tear into	137.	Oil-fires are extinguished by
	ribbons to avoid	9	(A) Soda-acid fire extinguisher
	(A) desiccation		(B) Foam-type fire extinguisher
	(B) air resistance		(C) Carbon-tetrachloride fire
	(C) scorching sunlight		extinguisher
	(D) mutual shading		(D) Simply by water
			a a said a s
33.	The substance which changes from	138.	The apparatus used for measuring the
	solid to vapour state at normal		heat change is called
	atmospheric pressure without being		(A) Thermometer
	liquefied is		(B) Voltameter
	(A) Ice		(C) Voltmeter
	(B) Mercury	X	(D) Calorimeter
	(C) Camphor		
	(D) Bismuth	139.	Plaster of Paris hardens by
			(A) combining with water
34.	Which energy comes from Sun?		(B) giving out water
10	(A) Wind energy	1.5	(C) giving out CO ₂
	(B) Thermal energy		(D) combining with CO ₂
	(C) Tidal energy		
	(D) Hydel energy	140.	German Silver is an alloy of
		(8)	(A) Silver and Copper
5.	The tungsten wire in coiled form in		(B) Silver and Aluminium
	electric bulb has		(C) Copper, Zinc and Nickel
	(A) lower melting point and lower resistance		(D) Nickel and Aluminium
	(B) lower melting point and higher	141.	What was the name accorded to the
	resistance		Military Operation in Kargil in 1999 ?
	(C) higher melting point and lower		(A) Operation Pawan
	resistance		(B) Operation Poomalai
	(D) higher melting point and higher		(C) Operation Vijay
	resistance		- Farmion , ijuj



- 142. The film 'Slumdog Millionaire' is based on the book 'Question & Answer' written by
 - (A) Bhisham Swarup
 - (B) Vikas Swarup
 - (C) Vimal Swarup
 - (D) Vinay Swarup
- 143. The International Hockey Tournament in which only the top six nations (judged by their rankings) are invited to take part is
 - (A) Champions Trophy
 - (B) Azlan Shah Cup
 - (C) World Cup
 - (D) Champions Challenge Trophy.
- 144. Pankaj Advani has won the World Professional Billiard Championship, 2009 defeating in the final
 - (A) Geet Sethi
 - (B) Robert Frost
 - (C) Om Agarwal
 - (D) Mike Russel
- 145. To whom did India beat to lift the ONGC Nehru Cup, 2009?
 - (A) Japan
 - (B) Somalia
 - (C) Syria
 - (D) Afghanistan
- 146. The recipient of the 42nd Jnan Peeth Award this year is
 - (A) Manohar Shashtri
 - (B) Satya Vrat Shashtri
 - (C) K. Kaushal Panda
 - (D) Mahavir Shashtri
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- 147. Who has won the 100 metres sprints at the British Grand Prix recently?
 - (A) Tyson Gray
 - (B) Usain Bolt
 - (C) Kim Collins
 - (D) Mario Burns
- 148. The World Badminton Federation declared the Indian Shuttler, Saina Nehwal, as
 - (A) The most promising player of 2008
 - (B) The leading player of 2008
 - (C) The most popular player of 2008
 - (D) The emerging player of 2008
- 149. The first sister from India to be conferred the Sainthood by Pope Benedict XVI is
 - (A) Sister Desouza
 - (B) Sister Nirmala
 - (C) Sister Alphensa
 - (D) Sister Madorana
- 150. The three countries in serial order which won the highest number of Gold Medals in the Beijing Olympics are
 - (A) China, U.S.A, Russia
 - (B) China, U.S.A, Germany
 - (C) China, Germany, Australia
 - (D) China, Australia, Canada

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PART – IV NUMERICAL APTITUDE

- 151. The boys of a class are made to stand in a queue. Amit is standing at 15th place from both ends. How many boys are there in the queue?
 - (A) 31
 - (B) 30
 - (C) 29
 - (D) 28
- 152. If the sum of a rational number and its reciprocal is 13/6, then the number is
 - (A) $\frac{1}{2}$
 - (B) $\frac{1}{6}$
 - (C) $\frac{2}{3}$
 - (D) $\frac{5}{6}$
- 153. In a group of students; 30 students play Cricket, 20 play Tennis and in all 35 play either Cricket or Tennis. How many students play both Cricket and Tennis?
 - (A) 10
 - (B) 12
 - (C) 15
 - (D) 18

- **154.** Simplified value of $\frac{(15.4)^2 (35.4)^2}{25}$ i
 - (A) -40.64
 - (B) -10.16
 - (C) 40.64
 - (D) 50.80
- 155. Simplified value of

$$\frac{(0.361)^3 + (0.639)^3}{(0.361)^2 - 0.361 \times 0.639 + (0.639)^2}$$
 is

- (A) 1
- (B) 361
- (C) 639
- (D) 1000
- 156. If the sum of one-half, one-third and one-fourth of a number exceeds the number by 12, then the number is
 - (A) 90
 - (B) 144
 - (C) 154
 - (D) 174
- 157. $32^{\frac{4}{5}} + 32^{-\frac{4}{5}}$ is equal to
 - (A) 32
 - (B) $16\frac{1}{16}$
 - (C) $15\frac{15}{16}$
 - (D) 1



158. If $\frac{a}{b} = \frac{5}{3}$ and 8a + 5b = 22, then a is equal to

- equal to
 (A) 2
- (B) 4
- (C) 5
- (D) 6

159. $\frac{(698 + 198)^2 - (698 - 198)^2}{698 \times 198}$ is equal to

- (A) 2
- (B) 4
- (C) 9854
- (D) 9874

160. The cube root of

 $0.027 + 0.064 + 3 \times 0.12 \times 0.7$ is

- (A) 0.30
- (B) 0.40
- (C) 0.12
- (D) 0.70

161. $\frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}} + \frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}}$ is equal to

- (A) 3.464
- (B) 2.828
- (C) 1
- (D) 10

162. $\sqrt{3\sqrt{3\sqrt{3\sqrt{3\sqrt{3}}}}}$ is equal to

- (A) $3^{\frac{33}{32}}$
- (B) $3^{\frac{27}{32}}$
- (C) $3^{\frac{31}{32}}$
- (D) $3^{\frac{5}{32}}$

163. $35 \times 35 \times 35 - 25 \times 25 \times 25 - 10 \times 10 \times 10$ is equal to

- (A) 26,250
- (B) 17,500
- (C) 8,750
- (D) 0

164. $\sqrt[3]{\frac{7}{2401}}$ is equal to

- (A) $\frac{1}{9}$
- (B) $\frac{1}{7}$
- 1
- (D) $\frac{1}{13}$

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165. $\sqrt{7+2\sqrt{12}} + \sqrt{7-2\sqrt{12}}$ is equal to

- (A) 4
- (B) $4\sqrt{3}$
- (C) 6
- (D) $6\sqrt{2}$

166. The smallest perfect square number, which is divisible by each of 2, 3, 4, 5 and 6, is

- (A) 600
- (B) 840
- (C) 900
- (D) 1600

167. $\left(1 - \frac{1}{2}\right) \left(1 - \frac{1}{3}\right) \left(1 - \frac{1}{4}\right) \left(1 - \frac{1}{5}\right) \dots \left(1 - \frac{1}{100}\right)$ is equal to

- (A) $\frac{1}{120}$
- (B) $\frac{1}{108}$
- (C) $\frac{1}{100}$
- (D) $\frac{1}{50}$

168. The sum of the first 51 terms of the arithmetic progression, whose 26th term is 300, is

- (A) 15,100
- (B) 15,300
- (C) 15,500
- (D) 15,700

169. The sum of all even numbers upto 100 is

- (A) 1000
- (B) 2000
- (C) 2500
- (D) 2550

170. $\frac{1}{1\times4} + \frac{1}{4\times7} + \frac{1}{7\times10} + \frac{1}{10\times13}$ is equal to

- (A) $\frac{2}{7}$
- (B) $\frac{3}{13}$
- (C) $\frac{3}{7}$
- (D) $\frac{4}{13}$

171. The average of all odd numbers less than 100 is

- (A) 49
- (B) 50
- (C) 51
- (D) 52

172. A batsman has a certain average of runs for 11 innings played by him. In his 12th innings he scored 90 runs, thereby decreased his average of runs by 5. His average of runs for 12 innings is

- (A) 217
- (B) 150
- (C) 145
- (D) 127

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- 173. The average of monthly salaries of A, B and C is Rs. 40,000 and that of B, C and D is Rs. 50,000. If D's monthly salary is Rs. 60,000, then A's monthly salary is
 - (A) Rs. 30,000
 - (B) Rs. 40,000
 - (C) Rs. 50,000
 - (D) Rs. 60,000
- 174. The selling price of a commodity is reduced by 25%. As a result its daily sale is increased by 30%. Due to this effect the revenue collected, compared to the previous daily sale, will be
 - (A) 5% more
 - (B) 5% less
 - (C) 2.5% more
 - (D) 2.5% less
- 175. In an examination, a student got 30% marks out of 180 in the first paper of a subject. How much must he get in the second paper out of 150 so that he gets 50% marks in the subject?
 - (A) 70%
 - (B) 74%
 - (C) 76%
 - (D) 80%

- 176. Let us suppose that when water freezes in the form of ice, its volume is increased by 10%. What percent decrease will there be when ice melts in the form of water?
 - (A) 10
 - (B) 9
 - (C) $11\frac{1}{9}$
 - (D) $9\frac{1}{11}$
- 177. If A: B = 2: 3 and B: C = 4: 5, then 5A: 3C is
 - (1) 8:0
 - (A) 8:9
 - (B) 5:8
 - (C) 7:9
 - (D) 6:7
- 178. The ratio of two numbers is 5: 8 and their difference is 69. The smaller of the two numbers is
 - (A) 184
 - (B) 140
 - (C) 115
 - (D) 108
- 179. The incomes of A and B are in the ratio 3: 2 and their expenditures in the ratio 5: 3. If each saves Rs. 10,000, A's income is
 - (A) Rs. 30,000
 - (B) Rs. 40,000
 - (C) Rs. 60,000
 - (D) Rs. 90,000



- 180. A person took two equal loans for 2 years and 3 years respectively each at 8% simple interest. If at the end of the terms, the difference of interests was Rs. 560, then the amount of each loan was
 - (A) Rs. 7,000
 - (B) Rs. 7,200
 - (C) Rs. 7,500
 - (D) Rs. 7,800
- 181. A sum of money at compound interest, compounded half-yearly becomes $\frac{676}{625}$ times of itself in one year. The rate of interest per annum is
 - (A) 10%
 - (B) 8%
 - (C) 6%
 - (D) 5%
- 182. A sum of money at compound interest amounts to Rs. 10,648 in 3 years and to Rs. 9,680 in 2 years. The rate of interest per annum is
 - (A) 20%
 - (B) 16%
 - (C) 15%
 - (D) 10%

- 183. Two successive discounts of 10% and 5% are equivalent to a single discount of
 - (A) 15%
 - (B) $7\frac{1}{2}\%$
 - (C) $12\frac{1}{2}\%$
 - (D) $14\frac{1}{2}\%$
- 184. The marked price of an article is 20% above its cost price. If the trader allows 20% discount on its marked price, he will get
 - (A) 4% profit
 - (B) 4% loss
 - (C) 5% profit
 - (D) 5% loss
- 185. A man can complete one-third of a work in 18 days. How many days will he need to complete 0.5 part of the work?
 - (A) 36
 - (B) 27
 - (C) 24
 - (D) 21



186. A and B together can do a piece of work in 12 days, B and C together in 15 days and C and A together in 20 days. In how many days can A alone do the same work?

(A) 22

(B) 25

(C) 30

(D) 40

187. A is twice as good a workman as B and together they complete a piece of work in 14 days. In how many days can A alone complete the work?

(A) 21

28 (B)

(C) 30

(D) 35

188. If 1 man or 2 women or 3 boys can do a piece of work in 55 days, in how many days, will 1 man, 1 woman and 1 boy together do the same work?

(A) 40

(B) 36

(C) 33

(D) 30

189. A car completes a certain journey in 8 hours. It covers half the distance at 40 km/hr and the rest at 60 km/hr. The length of the journey is

> (A) 420 km (B) 400 km

(C) 384 km

(D) 350 km 190. In going from station A to station B, a distance of 100 km, a train moves with speed 40 km/hr and in returning back from B to A, it runs with speed 60 km/hr. The average speed (in km/hr) of the train for the entire journey is

(A) 45

(B) 48

(C) 50

(D) 55

191. A man walking at 3 km/hr crosses a square field diagonally in 2 minutes. The area (in m2) of the field is

(A) 2500

(B) 3000

(C) 5000

(D) 6000

192. A runs twice as fast as B and B runs thrice as fast as C. In how many minutes, will the journey, covered by C in 42 minutes, be covered by A?

> (A) 36

> 28 (B)

(C) 14

(D) 7

193. The total surface area of a solid hemisphere is 1848 cm². Its diameter is

use $\pi =$

28 cm (A)

 $14\sqrt{6}\,\mathrm{cm}$ (B)

7√6 cm

14 cm



194. Each of the radius of a sphere and that of the base of a right circular cylinder is 3 cm. If their volumes are equal, the height (in cm) of the cylinder is

- (A) 4.
- (B) 9
- (C) 12
- (D) 22

195. The ratio of the area of an equilateral triangle and that of a square is $\sqrt{3}$: 2. If the length of a diagonal of the square is 60 cm, then the perimeter of the triangle is

- (A) 150 cm
- (B) 180 cm
- (C) 210 cm
- (D) 240 cm

196. The difference between the circumference and the diameter of a circle is 15 cm. The radius (in cm) of the circle is $\left(\text{Take } \pi = \frac{22}{7}\right)$

- (A) 7
- (B) 4.5
- (C) 3.5
- (D) 2.25

197. 6% more is gained by selling a radio for Rs. 475, than by selling it for Rs. 451. The cost price of the radio is

- (A) Rs. 434
- (B) Rs. 400
- (C) Rs. 446.50
- (D) Rs. 427.50

198. By selling an article for Rs. 255, a man incurs a loss of 15%. For what price should he sell it so that he makes a profit of 20%?

- (A) Rs. 275
- (B) Rs. 300
- (C) Rs. 375
- (D) Rs. 360

199. A production-house sells their items at 20% profit. If the production cost is increased by 10%, but the selling price remains unaltered, the profit is

- (A) $9\frac{1}{11}\%$
- (B) 10%
- (C) 11%
- (D) $11\frac{1}{9}\%$

200. A shop-keeper had to sell an article at 20% loss. He could gain 5%, if he had sold the article for Rs. 200 more. The cost price of the article was

- (A) Rs. 700
- (B) Rs. 800
- (C) Rs. 900
- (D) Rs. 1,000