All India Mock of ECGC PO 2021 - (Solutions)

Solutions (1-5): From the given statements, only box A is placed to the west of box P. Box P is placed to the west of box W and to the south of box X. No box is placed above the box X. Box V is placed immediately above box Y. Box V is placed below the box P in the same column. So, here we have two possible cases i.e. case1 and case2.

CASE1:

	X		
Α	P	W	
	V		
	Y		

CASE 2:

	Χ	
A	P	W
	V	
	Y	

Box V is placed to the south west of box R. No box is placed to the east of box R. Box Z and W are placed in the same column. Box Z is placed immediately above box T in the same column. No box is placed below and to the west of box D.

CASE 1:

	Χ		R/
A	P	W	R/
	V	Z	
D	Y	T	

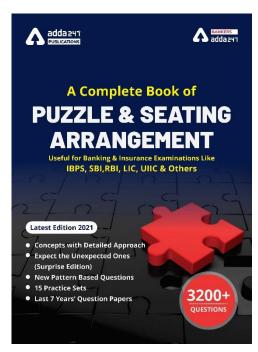


CASE 2:

	X	R
A	P	W
	V	Z
D	Y	T

Box B is placed to the east of box U and to the north of box R. So, case 2 gets eliminated here. Box S is placed to the east of box Q. Box E is placed to the north of box Q. So, the final arrangement is:

Е	X	U	В
A	P	W	R
Q	V	Z	S
D	Y	T	С



S1. Ans.(d)

S2. Ans.(e)

S3. Ans.(a)

S4. Ans.(d)

S5. Ans.(c)

S6. Ans.(c)

Sol. From II and III, we get to know that S gets the first rank.

1 2 3 4 5 6 7 S O/M O/M P N Q R

S7. Ans.(a)

Sol. From I and II, we get to know that SD is read on 16th January

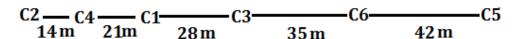
DATES	BOOKS
(January)	
12	JU
14	VN
16	SD
19	KI
23	LA
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S8. Ans.(e)

Sol. From I, II and III we can't determine the vacant floor

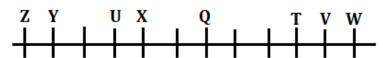
S9. Ans.(b)

Sol. From I and III we get to know that the distance between C2 and C5 is 140.



S10. Ans.(d)

Sol. From I,II and III we get to know that 12 persons are sitting in a row.



S11. Ans.(d)

Sol. For I-This is in-line with the given statement as it states about the meeting in between Indian and UAE delegations which is also mentioned in the given statement that India and the UAE have discussed measures to deepen cooperation in a range of areas.

For II- This is not- in-line with the given statement as it states about shipment of wheat from India to Afghanistan through the Iranian port of Chabahar whereas the given statement states that India and the UAE have discussed measures to deepen cooperation in a range of areas.

For III- This is in-line with the given statement as it states that UAE has raised its investment profile in India which is also mentioned in the given statement that India and the UAE have discussed measures to deepen cooperation in a range of areas.

S12. Ans.(c)

Sol. For I- This statement can't be hypothesized from the given statement as nothing is mentioned about facilities given under social welfare schemes for OBCs in the given statement.

For II- This statement can be hypothesized from the given statement as it is mentioned in the given statement that Modi-led government has moved to reframe social welfare schemes for other backward classes (OBCs) in the run-up to the high stakes elections in Gujarat and Himachal Pradesh.

For III- This statement can't be hypothesized from the given statement as nothing is mentioned about

For III- This statement can't be hypothesized from the given statement as nothing is mentioned about facilities given under social welfare schemes for OBCs in the given statement.

S13. Ans.(e) Sol.

Number	Letters	
2	T	
4	В	
6		
8	R	
10	S	
12	O	
14	M	
16	K	
18	P	
20	Е	
22	Z	
24	N	



S14. Ans.(b)

Sol. Word - "PERT"

Number	Letters
2	T
4	В
6	
8	R
10	S
12	0
14	
16	К
18	P
20	Е
22	Z
24	N

S15. Ans.(c) Sol.

Number	Letters
2	T
4	В
6	
8	R
10	S
12	O
14	
16	K
18	Р
20	Е
22	Z
24	N



Solutions (16-20): From the given statements, E lives in flat A but not on an odd numbered floor. R lives on an even numbered floor. R lives to the north of E. So, we have three possible cases i.e. case1, case2 and case3. F lives on the third floor. T lives to the south west of F. P lives to the north of F. There are two floors gap between P's and T's floor. P lives on an even numbered floor. Z lives on an odd numbered floor with the same floor as that of D. D lives to the north east of T.

FLOORS	CAS	SE 1	CAS	SE 2	CAS	SE 3
	FLAT-A	FLAT-B	FLAT-A	FLAT-B	FLAT-A	FLAT-B
6	R		R			
5	Z	D	Z	D	Z	D
4	Е	Р		P	R	Р
3		F		F		F
2			Е		Е	
1	T		T		T	

C and S lives on the same floor. C lives to the south west of F. So, case 2 and case 3 gets eliminated here. C and Q lives on the same flat. No one lives to the south west of G.

FLOORS	FALT-A	FLAT-B
6	R	Vacant
5	Z	D
4	Е	Р
3	Q	F
2	С	S
1	T	G

S16. Ans.(d)

S17. Ans.(c)

S18. Ans.(e)

S19. Ans.(b)

S20. Ans.(d)



Solutions (21-25): From the given statements, Class of English takes place from 12 pm to 1 pm. Only one class took place between the classes of English and Economics. The duration for the class of Economics is twice as the duration for the class of English. Only one subject's class took place between the classes of Biology and Physics. Biology's class started at 4:30 pm. From these conditions we have the following possibilities-

Case 1		Case 2	
Subjects	Time Slot	Subjects	Time Slot
English	12 pm – 1pm	Economics (2-hrs.)	
	1pm -		- 12pm
Economics (2-hrs.)		English	12 pm - 1pm
Physics		Physics	1pm-
	-4:30 pm		-4:30pm
Biology	4:30 pm-	Biology	4:30pm-

Case 3				
Subjects	Time Slot			
English	12pm - 1pm			
Physics	1pm-2:30pm			
Economics (2-hrs.)	2:30-4:30pm			
Biology	4:30pm-			

Cas	Case 4		Case 5		ase 6
Subjects	Time Slot	Subjects	Time Slot	Subjects	Time Slot
English	12pm-1pm	Economics		Economics	
		(2-hrs.)		(2-hrs.)	
	1pm -		-12pm		
Economics		English	12pm-1pm	English	12pm-1pm
(2-hrs.)					
	-4:30pm		1pm-		1pm- 4:30pm
Biology	4:30pm-	Physics		Biology	4:30pm-
			-4:30pm		
Physics		Biology	4:30pm-	Physics	

Sanskrit class took place immediately before chemistry class. So, from these condition Case1, Case2, case4, case5, and case6 gets eliminated. Number of classes took place between Hindi and English is same as between Biology and English.

Case 3					
Subjects	Time Slot				
Hindi					
Sanskrit					
Chemistry	-12pm				
	12pm – 1pm				
Physics	1pm-2:30pm				
Economics (2-	2:30-4:30pm				
hrs.)					
Biology	4:30pm-				

The duration for the classes of Physics and Sanskrit is same. The total duration for the classes of Hindi, Sanskrit and chemistry is 4:30 hrs. The duration for the class of Hindi is half an hour more than that of Sanskrit. The duration for the class of Chemistry is 30 minutes more than the time duration of the Biology class.

The total duration for the classes of all the subjects is 10 hours 30 minutes. (So, Biology slot was 4:30pm to 6:00pm). So, the final arrangement is-

Subjects	Time Slot
Hindi	7:30 am to 8:30am
Sanskrit	8:30 am to 10 am
Chemistry	10 am to 12 pm
English	12 pm to 1 pm
Physics	1 pm to 2:30 pm
Economics	2:30 pm to 4:30 pm
Biology	4:30 pm to 6:00 pm

S21. Ans.(b)

S22. Ans.(b)

S23. Ans.(e)

S24. Ans.(a)

S25. Ans.(b)

S26. Ans.(a)

Sol. In this question, we have to choose an option which negates the report which accuses Indian Army of using chemical weapons in the attack.

Statement (i) raises doubts over the media report and therefore negates the statement.

Statement (ii) substantiates the statements by giving further evidence to support the statement.

Statement (iii) is irrelevant as water cannons are not a chemical weapon.

S27. Ans.(e)

Sol. In this question, we have to choose an option which negates the given statement.

Statement (i) supports the statement as it says that there was no plan of such a meeting which rules out the possibility of it being cancelled.

Statement (ii) is irrelevant to the question as it talks about the past.

Statement (iii) is also irrelevant to the question as troops deputed at the border areas facing extreme temperatures does not in any way affect the meeting.

S28. Ans.(c)

Sol. For I-This course of action should not be followed as it is the duty of police and security guards to handle the crowd in an appropriate manner. So, it should not be followed.

For II-This course of action should be followed to restrict movement of people in some particular areas until the situation will come under control.

For III-This course of action should also be followed as it is important to maintain law and order in such situations and a plan of action should also be made to face such problems.

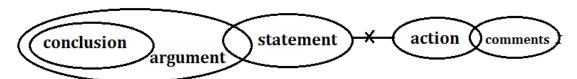


Sol.



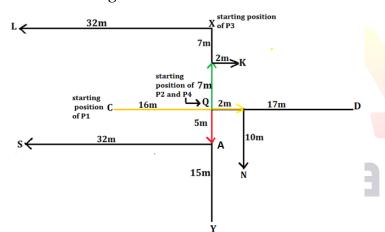
S30. Ans.(a)

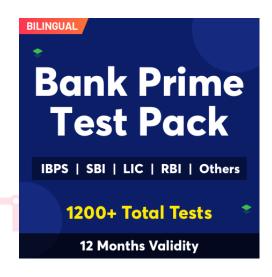
Sol.



Solutions (31-35):

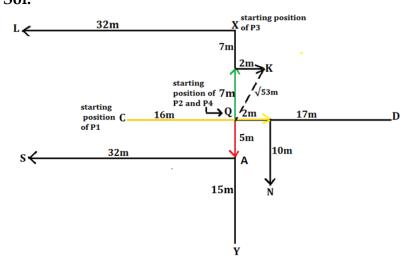
The final arrangement is:





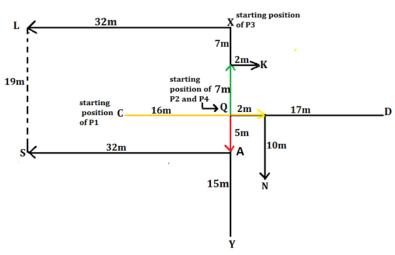
S31. Ans.(a)

Sol.



S32. Ans.(c)

Sol.



S33. Ans.(e)

S34. Ans.(c)

S35. Ans.(b)

S36. Ans.(e)

S37. Ans.(c)

Solutions (38-42): Logic:

Step I- First, arrange the digits within the numbers in ascending order and then arranged the numbers thus formed in ascending order.

Step II- Add 1 to each digit within the number and then write letters corresponding to each digits Step III- For symbol= if the word starts with a consonant then use @, if the word starts with a vowel use \$

For numbers= multiplication of the place value of the first and the last letter in the given words

Step IV- The sum of the digits of the number obtained in the previous step is written in words.

Step V- Opposite of first and last letter of the given word is taken then interchange their positions thus obtained. Count the number of letters and write the number between the two reverse letters.

Input: 9426 2184 6813 9864 7413

Step I- 1248 1347 1368 2469 4689

Step II- BCEI BDEH BDGI CEGJ EGIJ

Step III-@18 @16 @18 @30 \$50

Step IV- NINE SEVEN NINE THREE FIVE

Step V- V4M M5H V4M V5G V4U

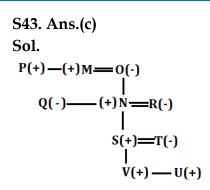
S38. Ans.(a)

S39. Ans.(c)

S40. Ans.(d)

S41. Ans.(b)

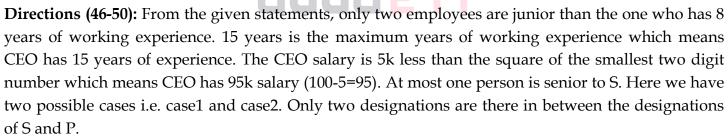
S42. Ans.(e)



S44. Ans.(b) Sol.

S45. Ans.(a) Sol.

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Designations	CASE 1		CASE 2			
	Persons	Experience	Salary	Person	Experience	Salary
		(years)		S	(years)	
Chief Legal Officer (CLO)						
Chief Marketing Officer (CMO)	P					
Chief Technology Officer (CTO)		8		P	8	
Chief Financial Officer (CFO)						
Chief Operating Officer (COO)	S					
Chief Executive Officer (CEO)		15	95k	S	15	95k

CMO is getting 50K. The sum of the salaries of CLO and CMO is same as the salary of the one who has the maximum work experience which means CLO gets 45K. The working experiences of CMO and CTO are in consecutive years which means CMO has 7 years of experience.

	CASE 1		CASE 2			
Designations	Person	Experience	Salary	Persons	Experience	Salary
		(years)			(years)	
Chief Legal Officer (CLO)			45K			45K
Chief Marketing Officer (CMO)	P	7	50K		7	50K
Chief Technology Officer (CTO)		8		Р	8	
Chief Financial Officer (CFO)						
Chief Operating Officer (COO)	S					
Chief Executive Officer (CEO)		15	95k	S	15	95k

R is junior than P. Q is junior than R and having the working experience equal to the sum of the digit of the salary what R gets and therefor, case 1 gets eliminated here. Hence, Q has 5 years of experience. The salary of CTO is less than 57K which means CFO gets 60 K. The one who is COO has 3 years more experience than the one who is getting 60K which means COO has 13 years of experience. The one who has 10 years of experience earns 10K less than U who is not CFO. The salary of P is a multiple of 11 which means salary of P is 55k (between 50K and 60K)

Designations	Persons	Experience(years)	Salary
Chief Legal Officer (CLO)	Q	5	45K
Chief Marketing Officer (CMO)	R	7	50K
Chief Technology Officer (CTO)	P	8	55K
Chief Financial Officer (CFO)	T	10	60K
Chief Operating Officer (COO)	U	13	70K
Chief Executive Officer (CEO)	S	15	95K

S46. Ans.(d)

S47. Ans.(a)

S48. Ans.(c)

S49. Ans.(b)

S50. Ans.(a)

S51. Ans.(b)

Sol. The passage discusses the effects of excessive usage of the Zoom app, which has helped the population of the world get closer and continue with their endeavours as they were during the difficult times of a pandemic.

S52. Ans.(d)

Sol. The first line of the passage says "Researchers at Silicon Valley's Stanford University have confirmed what millions of remote workers already knew: "Zoom fatigue" causes greater stress than meeting in real life because of the "non-verbal overload" of endless video calls." This is the same as option (d) stating that zoom fatigue has caused worse stress than real life interaction between individuals.

S53. Ans.(a)

Sol. The correct phrase would be "the best part of year".

Best part of something means "almost all of something; a large part of something; the major part of something."

S54. Ans.(a)

Sol. The passage contains the line "Some of these problems could be solved with "trivial changes" to Zoom's user interface, he suggested, such as automatically hiding the "selfie" window that reflects the user back at themselves after the first few seconds of a call", which is essentially the same statement as option (a).

S55. Ans.(a)

Sol. The passage is on Zoom fatigue which occurred as a result of increased usage of video conferencing apps like Zoom, Google Meet, Microsoft Teams, etc. This was due to the reason that people had to continue their daily lives (school, university, work) one way or another. And this is where these apps proved to be useful. Hence, the correct option is (a).

S56. Ans.(a)

Sol Option (a) is the correct answer.

'Under the weather' means to not feel well/to feel ill.

S57. Ans.(c)

Sol. The correct answer is (c).

'On cloud nine' means to be very happy and elated

S58. Ans.(c) T

Sol. he correct answer is (c) since none of these sentences demonstrate the right usage of the idiom - 'head over heels.'

Head over heels means to be completely in love or to be extremely smitten by someone



S59. Ans.(b)

Sol. Sentence in (ii) demonstrates the right usage of the idiom - 'Let one's hair down.'

Let one's hair down means to allow yourself to behave much more freely than usual and enjoy yourself.

S60. Ans.(a)

Sol. Sentence in the (i) demonstrates the correct usage of the idiom – 'read between the lines.'

Read between the lines means to find meanings that are intended but that are not directly expressed in something said or written.

S61. Ans.(e).

Sol. All the sentences in the above question are grammatically correct.

S62. Ans.(b)

Sol. The correct form of verb 'hire' would be 'hired' in this sentence since we can infer from the rest of the sentence that *Past Tense* is being used here.

S63. Ans.(a)

Sol. The incorrect sentence is (a) since it uses the correct subject-verb agreement rule: singular verb 'is' is used with the singular subject 'The President'.

S64. Ans.(c)

Sol. In the given sentence, the 'myself for a batsman' should be replaced with 'myself to be a batsman'

S65. Ans.(e)

Sol. All the sentences in the above question are grammatically correct.

S66. Ans.(d)

Sol. The first sentence in the sequence should be: "It is safe to say that everything changes with the times and the dress code is no exception."

The correct order of sentences is:

- (D) It is safe to say that everything changes with the times and the dress code is no exception.
- (A) Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable.
- (C) The question "does the dress code still exist in the 21st century?" still lingers.
- (B) To better answer this question, it is first important to define what a dress code is.
- (E) A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion.

S67. Ans.(a)

Sol. The second sentence in the sequence should be : "Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable."

The correct order of sentences is:

- (D) It is safe to say that everything changes with the times and the dress code is no exception.
- (A) Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable.
- (C) The question "does the dress code still exist in the 21st century?" still lingers.
- (B) To better answer this question, it is first important to define what a dress code is.
- (E) A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion.

S68. Ans.(c)

Sol. The third sentence in the sequence should be "The question "does the dress code still exist in the 21st century?" still lingers."

The correct order of sentences is:

The correct order of sentences is:

- (D) It is safe to say that everything changes with the times and the dress code is no exception.
- (A) Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable.
- (C) The question "does the dress code still exist in the 21st century?" still lingers.
- (B) To better answer this question, it is first important to define what a dress code is.
- (E) A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion.

S69. Ans.(b)

Sol. The fourth sentence in the sequence should be "To better answer this question, it is first important to define what a dress code is."

The correct order of sentences is:

The correct order of sentences is:

- (D) It is safe to say that everything changes with the times and the dress code is no exception.
- (A) Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable.
- (C) The question "does the dress code still exist in the 21st century?" still lingers.
- (B) To better answer this question, it is first important to define what a dress code is.
- (E) A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion.

S70. Ans.(e)

Sol. The fifth sentence of the sequence should be "A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion."

The correct order of sentences is:

- (D) It is safe to say that everything changes with the times and the dress code is no exception.
- (A) Much has changed just 19 years into the 21st century and looking back 5 decades ago, the changes in dress codes have been considerable.
- (C) The question "does the dress code still exist in the 21st century?" still lingers.
- (B) To better answer this question, it is first important to define what a dress code is.
- (E) A dress code can be described as an accepted way of dressing for a specific social group or a specific occasion.

S71. Ans.(e)

Sol. Reading the second paragraph of the passage it can be deduced that the correct answer is option(e).

The relevant sentences of the mentioned sentences have been quoted below:

"In this context, the use of policies that ensure sustainable materials management, building on the principles of the 3Rs – Reduce, Reuse, Recycle – is crucial. The OECD is therefore advising governments on Sustainable Materials Management (SMM) policies aiming to reduce the amount of resources that human economic activity requires and to diminish the environmental impacts from their production and consumption".

S72. Ans.(c)

Sol. Reading the second paragraph of the passage it can be deduced that the correct answer is option(c).

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The relevant sentences of the mentioned sentences have been quoted below:

"A Global Forum will take place this month in Tokyo to take stock of the **evolution** of EPR and will present a unique opportunity for a global, multi-stakeholder audience to exchange on their experience in designing and implementing such programmes."

S73. Ans.(d)

Sol. Reading the last paragraph of the passage it can be deduced that the correct answer is option(d). The relevant sentences of the mentioned sentences have been quoted below:

"As expressed by Simon Upton, Director at the OECD Environment Directorate, "Sustainable materials management helps to address the social, environmental and economic impacts throughout the life-cycle of a product or material.EPR policies are an effective tool to engage producers in that process."

S74. Ans.(c)

Sol. Reading the second paragraph of the passage it can be deduced that the correct answer is option(c).

The relevant sentences of the mentioned sentences have been quoted below:

"The OECD is therefore advising governments on Sustainable Materials Management (SMM) policies aiming to reduce the amount of resources that human economic activity requires and to diminish the environmental impacts from their production and consumption."

S75. Ans.(d)

Sol. The term 'evolution' means 'The gradual process of change and development of something'. Thus when we go through the options, we find that 'retrogression' is the term opposite to it.

S76. Ans.(d)

Sol. The term 'rapidly' means 'in a fast or sudden way'. Thus when we go through the options, we find that 'swiftly' is the term opposite to it.

S77. Ans.(d)

Sol. Reading the last paragraph of the passage it can be deduced that the correct answer is option(d) which suits the blank best and makes the sentence meaningful and relevant to the passage.

The relevant sentences of the mentioned sentences have been quoted below:

"This can improve resource productivity and competitiveness"

S78. Ans.(a)

Sol. The term 'diminish' means "To become or to make something smaller or less important". Thus when we go through the options, we find that 'expand' is the term opposite to it.

S79. Ans.(a)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are 'authorisation-vaccination' as Authorization is the process of

(a) is the correct answer.

S80. Ans.(b)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are 'achieve- prevent.' Achieve means to complete something by hard work and skill and prevent means to stop something happening or to stop somebody doing something. Thus option (b) is the correct answer.

giving someone permission to do or have something .Thus option



S81. Ans.(d)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are "limited-connect" Limited means small or controlled in number, amount, etc and connect means to be joined to something .Thus option (d) is the correct answer.

S82. Ans.(a)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are "identify-behaviour". Identify means to recognize or be able to say who or what somebody/something is and behaviour means the way that you act or behave. Thus option (a) is the correct answer.

S83. Ans.(e)

Sol. When we go through the sentence,we find that the set of words which best suits the blanks are "authorised-impose". Authorise means to give official permission for something or for somebody to do something and impose means to make a law, rule, opinion, etc. be accepted by using your power or authority. Thus option (e) is the correct answer.

S84. Ans.(e)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are "offending-abstain." Offend means to hurt somebody's feelings and abstain means formally decline to vote either for or against a proposal or motion. Thus option (e) is the correct answer.

S85. Ans.(e)

Sol. When we go through the sentence, we find that the set of words which best suits the blanks are "quiet-talkative" and " quiet-subdued" both. Quiet means with very little or no noise, Talkative means liking to talk a lot and subdued means to conquer and bring into subjection. Thus option (e) is the correct answer.

S86. Ans.(a)

- **Sol.** The given paragraph is describing the fiscal deficit and impact of the COVID-19 pandemic. Thus, the most suitable word for the given blank is 'pegged' (past participle form of 'peg') which means to fix or keep something at a certain level.
- (b) scramble means to fight or move quickly to get something which a lot of people want
- (c) jumble means to mix things together in a confused and untidy way
- (d) increased means to make something larger in number or amount Hence, option (a) is the correct answer choice.

S87. Ans.(c)

Sol. The given paragraph is describing the fiscal deficit and impact of the COVID-19 pandemic. Thus, the most suitable word for the given blank is 'clubbed with' which means combine with others so as to collect a sum of money for a particular purpose.

- (a) detached with means not being or not feeling personally involved in something
- (b) split means to separate forcibly
- (d) separated from means detached

Hence, option (c) is the correct answer choice.

S88. Ans.(b)

Sol. The given paragraph is describing the fiscal deficit and impact of the COVID-19 pandemic. Thus, the most suitable word for the given blank is 'vulnerable' which means weak and easy to hurt physically or emotionally. Hence, option (b) is the correct answer choice.

S89. Ans.(a)

Sol. The given paragraph is describing the fiscal deficit and impact of the COVID-19 pandemic. Thus, the most suitable word for the given blank is to deal which means an agreement or arrangement, especially in business. Hence, option (a) is the correct answer choice.

S90. Ans.(c)

Sol. The given paragraph is describing the fiscal deficit and impact of the COVID-19 pandemic. Thus, the most suitable word for the given blank is 'monetisation' which means the action or process of earning revenue from an asset, business, etc. Hence, option (c) is the correct answer choice.

S91. Ans.(c)

Sol. FORTRAN(Formula Translation) was the first widely used high level general purpose programming language to have a functional implementation. FORTRAN was invented at IBM by John Backus. FORTRAN is a general-purpose, imperative programming language that is especially suited to numeric computation and scientific computing.

S92. Ans.(b)

Sol. In assembly language, mnemonics are used to specify an opcode that represents a complete and operational machine language instruction.

S93. Ans.(d)

Sol. Ctrl+E is used for align center.

S94. Ans.(b)

Sol. Linux is a Unix-like and mostly POSIX-compliant computer operating system (OS) assembled under the model of free and open-source software development and distribution.

S95. Ans.(e)

Sol. Back space key deletes the character at that position, and shifts back the text after that position by one position.

S96. Ans.(e)

Sol. Interpreter Takes Single instruction as input and Compiler Takes Entire program as input.

S97. Ans.(d)

Sol. A computer system includes hardware components, software, peripheral devices.

S98. Ans.(c)

Sol. A light pen is a pointing device that uses a photoelectric (light-sensitive) cell to indicate a position on the display screen.

S99. Ans.(e)

Sol. A router is used to route data packets between different networks. It reads the information in each packet to tell where it is going. If it is destined for an immediate network it has access to, it will strip the outer packet (IP packet for example), readdress the packet to the proper Ethernet address, and transmit it on that network.

S100. Ans.(b)

Sol. A Graphical User Interface (GUI) is a usual interface that allows users to interact with the computer through graphical elements such as pictures and animations.

S101. Ans.(a)

Sol. System software is developed to serve as a bridge between the hardware and the user, as the software directly communicates with the hardware. Operating systems and debuggers are two best examples of system software.

S102. Ans.(c)

Sol. A watermark is a ghost text that is set behind the content of a page.

S103. Ans.(a)

Sol. Touch Screen is an example of an I/O Device.

S104. Ans.(a)

Sol. DBMS acts as an interface between database application and the database.

S105. Ans.(a)

Sol. OCR (optical character recognition) is the recognition of printed or written text characters by a computer. This involves photo scanning of the text character-by-character, analysis of the scanned-in image, and then translation of the character image into character codes, such as ASCII, commonly used in data processing.

S106. Ans.(b)

Sol. Help Menu is available at Start button.

S107. Ans.(b)

Sol. NORTON is an antivirus.

S108. Ans.(b)

Sol. FAX can be used to send images and text over telephone lines.

S109. Ans.(c)

Sol. In the client-server system, microcomputers are commonly treated as client computers due to their limited hardware configuration to handle and process multiple tasks.

S110. Ans.(d)

Sol. A computer stores data in the binary form that is in the form of 0's and 1's.

S111. Ans.(e)

Sol. The Reserve Bank of India has signed an agreement of USD 400 million currency swap facility with Sri Lanka.

Capital of Sri lanka-Sri Jayawardenepura Kotte & colombo

Currency-Sri Lankan rupee

S112. Ans.(a)

Sol. 10th'2020 october was observed as World Mental Health Day.

Others-

11october-International Day of the Girl Child

140ctober-World Standards Day

15 October -Global Handwashing Day

15 October - Pregnancy and Infant Loss Remembrance Day

S113. Ans.(c)

Sol. Recently a famaous presonality 'Bhupesh Pandya' has passed away. he was a Bollywood Film Actor.Bhupesh Pandya was an actor, known for Vicky Donor (2012), Gandhi to Hitler (2011) and Parmanu: The Story of Pokhran (2018). He died on September 23, 2020 in Ahmedabad, Gujarat, India.

S114. Ans.(b)

Sol. Asian Development Bank (ADB) has appointed Ashok Lavasa as its new Vice President. Lavasa will succeed Diwakar Gupta. Lavasa is the Election Commissioner of India.

HQ of ADB bank-Manila, Phillipines

president of ADB bank-Masatsugu Asakawa



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S115. Ans.(a)

Sol. The 'Swavalamban Crisis Responsive Fund' (SCRF) is set-up by the Small Industries Development Bank of India (SIDBI).It is an open-ended fund to provide the facility of free onboarding of MSME on Trade Receivables Discounting System (TReDS) platform.

S116. Ans.(e)

Sol. ICICI Bank has launched an Insta FlexiCash facility to its salary account customers. The Insta FlexiCash is an online overdraft facility (OD) by which customers can get approval for OD instantly with a paperless manner.

S117. Ans.(c)

Sol. Recently, the Kerala Government has started a virtual class initiative called 'First Bell'.

S108. Ans.(b)

Sol. All India Football Federation (AIFF) has launched the web platform "E-Pathshala" in partnership with the Sports Authority of India (SAI). It has been split into three parts:My Football Culture, My Skills and My Training.

S119. Ans.(e)

Sol. ecently, the Union Minister for Tribal Affairs launched "GOAL (Going Online As Leaders)" programme at a webinar in New Delhi.It is a joint initiative of Facebook and the Ministry of Tribal Affairs.

The GOAL programme is designed to provide mentorship to tribal youth through digital mode.

S120. Ans.(b)

Sol. Recently, the Ministry of Panchayati Raj released a Standard Operating Procedure (SOP) regarding e-Gram Swaraj. The application was launched on the National Panchayati Raj Day (April 24).

Aim: To bring in better transparency and strengthening of the e-Governance in Panchayati Raj Institutions (PRIs)

S121. Ans.(a)

Sol. The National Bank for Agriculture and Rural Development (NABARD) has sanctioned an amount of Rs

1,050 crores as a special liquidity facility to the farmers and economically weaker section of West Bengal state. The amount will help to ensure the continuous credit flow to the farmers in the lockdown situation of COVID-19.

S122. Ans.(d)

Sol. Recently, Prime Ministers of India and Australia held their first virtual bilateral summit and both concluded nine agreements including the Comprehensive Strategic Partnership (CSP) and the Mutual Logistics Support Agreement (MLSA).

S123. Ans.(a)

Sol. ISRO has initiated 'Project NETRA' – an early warning system in space to detect debris and other hazards to Indian satellites.

S124. Ans.(c)

Sol. CHAMPIONS Portal has been launched by Narendra Modi for MSME's-To make smaller units big ones by solving their grievances, motivating them, and providing them helping support in all terms as and whenever required.

S125. Ans.(a)

Sol. Recently, the Global Multidimensional Poverty Index (MPI) 2020 was released by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI).

S126. Ans.(d)

Sol. Researchers at the Indian Institute of Technology in Delhi have developed a web-based dashboard PRACRITI for predicting the spread of Covid-19 in India.

S127. Ans.(e)

Sol. India successfully test fired the brahmos surface-to-surface supersonic test missile with astrike range of 400 km at chandipur, odhisa.

S128. Ans.(e)

Sol. Mizoram is the First state to grant 'status of Industry' to sports.

Capital-Aizwal

CM of Mizoram-Zoramthanga

Sports Minister- Robert romawai royte

S129. Ans.(b)

Sol. CRR- Cash reserve ratio comes under section 42 of RBI act 1934

S130. Ans.(d)

Sol. Recently, India has virtually participated in 3rd edition of G20 Finance Ministers and Central Bank Governors. The FMCBG meeting was held under the Saudi G20 Presidency and was chaired by Mr. Mohammed Aljadaan.

S131. Ans.(c)

Sol. Baglihar Dam is a run-of-the-river power project on the Chenab River in the southern Doda district of the Indian state of Jammu and Kashmir.

S132. Ans.(b)

Sol. Mirzapur is a city of Uttar Pradesh state, India. It is situated on the Ganges (Ganga) River.

S133. Ans.(a)

Sol. The Koyna Hydroelectric Project is the largest completed hydroelectric power plant in India.

S134. Ans.(d)

Sol. International Women's Day is celebrated every year on 08th March.

S135. Ans.(d)

Sol. Raut Nacha is a traditional folk dance usually done by Yadavs as symbol of worship to Krishna.

S136. Ans.(b)

Sol. Former Australia cricketer and renowned commentator Dean Jones passed away on 24th September following a massive cardiac arrest in Mumbai. He was 59.

A batsman during his playing days, Jones played 52 Tests and 164 ODIs for Australia between 1984 and 1994 before venturing into commentary.

S137. Ans.(b)

Sol. Headquarters: Mandaluyong, Philippines

S138. Ans.(a)

Sol. Kolkata based Real Estate Developer, Bengal Peerless Housing Development Company Limited has appointed Former National Cricket Team Captain and Current President of Board of Control for Cricket in India (BCCI), Sourav Ganguly as its Brand Ambassador.

He will lead the campaign of Bengal Peerless's Residential Project Avidipta II.

S139. Ans.(e)

Sol. Capital: Bamako

Currency: West African CFA franc

S140. Ans.(c)

Sol. International Coffee Day is widely known yearly on October 1st to recognise and have fun the efforts of all these people who find themselves related to the espresso enterprise.

International Coffee Organisation (ICO) organised and launched First World Coffee Day in 2015 at Milan.

S141. Ans.(a)

Sol. Uttar Pradesh government has secured the first rank in central government's PM Atmanirbhar Nidhi Scheme (SVANidhi Scheme) by approving the highest number of loans under the scheme. Prime Minister Narendra Modi will distribute loans to around 3 lakh beneficiaries. Uttar Pradesh has

ranked first in all the categories including Applications, Sanctions and Disbursements of the loans.

S142. Ans.(d)

Sol. National Thermal Power Corporation Limited (NTPC) has featured on the top on the list of Indian PSUs under the 'World's Best Employer 2020', published by Forbes.

The recognition is testimony to NTPC's commitment towards inculcating best in class practices that are thoughtfully designed and robustly executed, the company stated in a statement.

NTPC has successfully innovated and introduced people practices in the domain of hiring; engagement; diversity and inclusion; rewards and recognition; and performance management.

S143. Ans.(b)

Sol. The first batch of women pilots of Indian Navy have been operationalized on Dornier Aircraft by the Southern Naval Command (SNC) at Kochi. The three women pilots were part of the six pilots of the 27th Dornier Operational Flying Training (DOFT) Course, who graduated as 'Fully operational Maritime Reconnaissance (MR) Pilots' at a passing out ceremony held at INS Garuda, Kochi on 22 Oct 20.

The three women pilots of first batch are Lieutenant Divya Sharma (from Malviya Nagar, New Delhi), Lieutenant Shubhangi Swaroop (from Tilhar, Uttar Pradesh) and Lieutenant Shivangi (from Muzaffarpur, Bihar).

S144. Ans.(d)

Sol. The Union Cabinet on 21st October approved the adoption of the Jammu & Kashmir Panchayati Raj Act, 1989, a government spokesperson said. Briefing the press after a Cabinet meeting chaired by Prime Minister Narendra Modi.

Union minister Prakash Javadekar said the move will help establish all the three tiers of grassroots-level democracy in Jammu & Kashmir like in other parts of the country.

S145. Ans.(c)

Sol. In Shooting, the world number one Elavenil Valarivan of India won the gold medal in women's event of the 2020 Sheikh Russel International Air Rifle Championship.

The event was organised by Bangladesh Shooting Sport Federation (BSSF). Japan's Naoya Okada won the gold in the men's event, while India's Shahu Tushar Mane bagged a silver.

S146. Ans.(c)

Sol. UK-based Indian-origin plastic surgeon, Dr Jajini Varghese has been named an 'Outstanding Young Person of the World 2020' by a non-profit NGO for her "incredible" scientific contributions to diagnosing and treating breast cancer.

Varghese has been recognised in the "Medical Innovation" category for making it her personal mission to attempt to restore the lives of millions of women affected by breast cancer and will be presented with the award at a ceremony at the 2020 Junior Chamber International (JCI) World Congress in Yokohama, Japan.



S147. Ans.(a)

Sol. Ace Indian cricketer and Captain of Mumbai Indians, Rohit Sharma has been signed up by India's leading beauty accessories brand, Vega, for its men's personal grooming electronics range under the 'Vega Men' brand.

Rohit Sharma will feature as the brand ambassador for 'Vega Men' range in the upcoming digital campaign.

S148. Ans.(b)

Sol. Indian Air Force 1st woman officer, Wing Commander (retd) Dr Vijaylakshmi Ramanan passed away. She was born in February 1924, she did her MBBS and later was commissioned in the Army Medical Corps on August 22, 1955.

She was promoted to the rank of Wing Commander in August 1972 and honoured with the Vishist Seva Medal five years later. She had retired in February 1979.

S149. Ans.(e)

Sol. Union Minister of State for Culture and Tourism (I/C) Shri Prahlad Singh Patel launched the "Life in Miniature" project on October 22, 2020. The project is a collaboration between the National Museum, New Delhi; Ministry of Culture and Google Arts & Culture. The partnership between the trio began in 2011.

The project uses various technologies such as machine learning, augmented reality and digitization with high-definition robotic cameras. It showcases special works of art in a magical new way.

Under this project, people from across the world would be able to view online hundred of miniature paintings from the National Museum on Google Arts and Culture.

S150. Ans.(c)

Sol. World Bank has approved a project proposed by the Goa state biodiversity board that will see India's first sand dune parks and interpretation centres developed along select stretches.

Around Rs 3 crore has been sanctioned to the state under the programme, and will see interventions like interpretation centres to educate locals and tourists on the importance of the sand dune ecosystem.

S151. Ans.(b)

Sol. Sum of present age of A, B and $C = 30 \times 3 = 90$ years Sum of age of A, B, C and D after three years = $37.5 \times 4 = 150$ years Age of D 3 years hence = 150 - (90 + 9) = 51 years After six years age of D = 51 + 3 = 54 years.

S152. Ans.(d)

Sol. Let speed of boat A and boat B in still water be 5x km/hr and 3x km/hr respectively And speed of stream be y km/hra

So,

$$2 = \frac{48}{(5x+y) + (3x-y)}$$

Or

$$2 = \frac{48}{(3x+y)+(5x-y)}$$

$$2 = \frac{48}{8x}$$

$$x = 3$$

Upstream speed of boat A = $\frac{24}{3}$ = 12 km/hr

$$12 = 5 \times 3 - y$$

$$y = 3 \text{ km/hr}$$

Downstream speed of boat A = 15 + 3 = 18 km/hr

S153. Ans.(d)

Sol. After removing 20 L of mixture from the container ratio of milk to water remains same

i.e.
$$5:3$$

Now,

$$\frac{5x - \frac{5}{8} \times 20 + 10}{3x - \frac{3}{8} \times 20} = \frac{3}{1}$$

$$5x - 12.5 + 10 = (3x - 7.5)3$$

$$5x - 2.5 = 9x - 22.5$$

$$4x = 20$$

$$x = 5$$

= 251



S154. Ans.(e)

Sol. Ratio of profit share of A to B = $4x : 20000 \times 3$

So,

$$\frac{4x}{20,000\times 3} = \frac{1}{2}$$

$$x = \text{Rs.} 7500$$

S155. Ans.(d)

Sol. Total mixture = $\frac{10}{12.5} \times 100$

$$= 80 l$$

$$36 + x + 12 + (x + 8) = 80 l$$

$$56 + 2x = 80 l$$

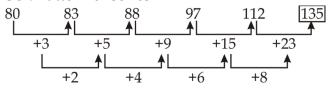
$$x = \frac{80 - 56}{1}$$

$$x = 12 l$$

Water added in mixture = $(12 + 8) = 20 \ell$

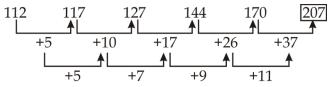
S156. Ans.(e)

Sol. Pattern of series -



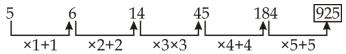
S157. Ans.(b)

Sol. Pattern of series -



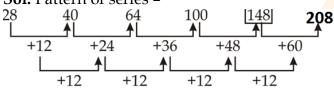
S158. Ans.(a)

Sol. Pattern of series -



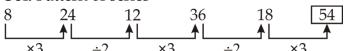
S159. Ans.(d)

Sol. Pattern of series -



S160. Ans.(b)

Sol. Pattern of series –



S161. Ans.(c)

Sol.
$$110 \times \frac{420}{70} + 500 - 40 = ? \times \frac{5600}{100}$$

$$660 + 460 = 56 \times ?$$

$$? = \frac{1120}{56}$$

$$? = 20$$

S162. Ans.(d)

Sol.
$$630 \times ? + 1200 - \frac{55}{100} \times 16000 = \frac{20}{100} \times 9250$$

$$630 \times ? + 1200 - 8800 = 1850$$

$$? = \frac{9450}{630}$$

27

S163. Ans.(b)

Sol.
$$\sqrt{(525-490)^2 \div (245)^2} = ? -\frac{252}{294}$$

 $\frac{35}{245} + \frac{252}{294} = ?$
 $\frac{1}{7} + \frac{6}{7} = ?$
 $? = 1$

S164. Ans.(d)

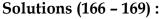
Sol.
$$\frac{(263+?)}{7} + \sqrt[3]{1331} = (19)^2 - 290$$

 $\frac{(263+?)}{7} + 11 = 71$
 $? = 420 - 263$
 $? = 157$

S165. Ans.(a)

Sol.
$$727 + (14)^2 - \sqrt{529} = \frac{?}{100} \times 5000$$

 $727 + 196 - 23 = 50$?
 $? = \frac{900}{50} = 18$



Total voters in Vasantpur = $2800 \times \frac{27}{70} = 1080$ Total voters in Govindpur = $2800 \times \frac{18}{70} = 720$

Total voters in Vilaspur = $2800 \times \frac{25}{70} = 1000$

Let total male voters in Vasantpur and Govindpur be 10x and 7x respectively

And total female voters in Govindpur = 5y

Total female voters in Vasantpur = 8y

$$10x + 8y = 1080$$
 -----(i)

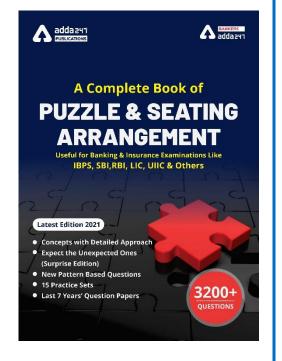
also,
$$7x + 5y = 720$$
 ----- (ii)

From (i) and (ii) we get -----

$$x = 60, y = 60$$

Total male voters in Vilashpur =
$$7 \times 60 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 600$$

	Vasantpur	Govindpur	Vilaspur
Male voters	600	420	600
Female voters	480	300	400



S166. Ans.(a)

Sol. Required percentage = $\frac{600 - 400}{400} \times 100 = 50\%$

S167. Ans.(b)

Sol. Required average = $\frac{480+400}{2}$ = 440

S168. Ans.(a)

Sol. Total illiterate voters in Govindpur = $420 \times \frac{35}{100} + 300 \times \frac{40}{100} = 267$

Required percent = $\frac{400-267}{400} \times 100$

$$=\frac{133}{400} \times 100 = 33.25\%$$

S169. Ans.(e)

Sol. Required ratio = $\frac{420}{480} = 7 : 8$

S170. Ans.(b)

Sol. ATQ -

Total S.I. =1800×2×20100= Rs. 720

Total C.I. =(1800-p)(1+30100)2-1

 $=1800-P\times69100$

ATQ, $1800-P \times 69100-720=315$

or, 1800-P=10069×1035

or, 1800-*P*=1500

 $\Rightarrow P=300$



S171. Ans.(a)

Sol. No. of bike in good condition in shop B & E together

$$= 2400 \times \frac{88}{100} + 1800 \times \frac{85}{100}$$

$$= 2112 + 1530 = 3642$$

No. of bike in bad condition in shop A & C together

$$=3600 \times \frac{18}{100} + 1300 \times \frac{26}{100}$$

$$= 648 + 338 = 986$$

Required difference

$$= 3642 - 986 = 2656$$

S172. Ans.(c)

Sol. No. of bike in bad condition in Shop A

$$= 3600 \times \frac{18}{100} = 648$$

No. of bike I n bad condition in shop B

$$= 2400 \times \frac{12}{100} = 288$$

Required percentage = $\frac{648-288}{288} \times 100$

S173. Ans.(d)

Sol. Required percentage

$$= \frac{1}{2} \left[1300 \times \frac{74}{100} + 1800 \times \frac{85}{100} \right]$$
$$= \frac{962 + 1530}{2} = 1246$$

S174. Ans.(a)

Sol. No. of bike in bad condition in shop B & D together

$$= 2400 \times \frac{12}{100} + 4200 \times \frac{14}{100}$$

$$= 288 + 588 = 876$$

 $\frac{1}{4}$ th of bike in good condition in shop A

$$=3600\times\frac{82}{100}\times\frac{1}{4}=738$$

Required ratio =
$$\frac{876}{738}$$
 = 146 : 123

S175. Ans.(b)

Sol. No. of bike unsold from shop D

$$= \frac{2}{3} \times 4200 \times \frac{86}{100} = 1204$$

No. of bike in bad condition in shop D

$$=4200 \times \frac{14}{100} = 588$$

Required percentage = $\frac{1204-588}{588} \times 100$

$$=\frac{616}{588} \times 100$$

$$=104\frac{16}{21}\%$$

S176. Ans.(a)

Sol. C. P. of jeans = $\frac{950}{5} \times 4 = 760$ Rs.

C. P. of shirt = $\frac{575}{115} \times 100 = 500$ Rs.

For 20% profit on both (Jeans + shirt)

$$= (760 + 500) \times \frac{120}{100}$$

= 1512 Rs.

Shirt should be sold = 1512 - 720 = 792 Rs.

S177. Ans.(b)

Sol. ATQ-

$$\pi r^2 + (\ell \times b) = 1264 \text{ sq. cm}$$

$$\frac{22}{7} \times \frac{28}{2} \times \frac{28}{2} + (2b \times b) = 1264 \text{ sq. cm}$$

$$2b^2 = 1264 - 616$$

$$b^2 = \frac{648}{2}$$

b = 18 cm

$$\ell = 36 \text{ cm}$$

$$2\pi r + 2(\ell + b) = 2 \times \frac{22}{7} \times \frac{28}{2} + 2(36 + 18)$$

$$= 88 + 108$$

$$= 196 \text{ cm}$$



S178. Ans.(c)

Sol. Let veer monthly salary = 100x Rs.

Veer spend on housing = $100x \times \frac{20}{100} = 20x Rs$.

Veer spend on Child education = $100x \times \frac{30}{100} = 30x Rs$.

Veer spend on food = $(100x - 50x) \times \frac{40}{100} \times \frac{3}{5} = 12x Rs$.

Veer spend on clothing = $(100x - 50x) \times \frac{40}{100} \times \frac{2}{5} = 8x$ Rs.

Veer saving = (100x - 20x - 30x - 12x - 8x) = 30x Rs.

Given, 30x = 15000

x = 500 Rs.

Monthly salary of Veer = $500 \times 100 = 50000 Rs$.

Annually salary = $12 \times 50000 = 600000 Rs$.

S179. Ans.(b)

Sol. ATQ,

$$20M (y) = 35W (y-3)$$
 _____(1)

$$15M (x-5) = 20w (x)$$
 _____(2)

Also,
$$1M = \frac{140}{100} w$$

$$1M = \frac{7}{5} w$$
 _____(3)

From (1) & (3),

$$y = 15$$

From (2) & (3)

$$x = 105.$$

Required ratio = 105:15

=7:1

S180. Ans.(a)

Sol. Let upstream speed be x and downstream speed be y.

ATQ,

$$x + y = 36$$

Also,

$$\frac{90}{v} = 4 + \frac{1}{2}$$

$$y=20 \text{ km/h}$$

$$\therefore x = 16 \text{ km/h}$$

$$=\frac{256}{16}=16 \text{ hr}$$



S181. Ans.(a)

= 36:55

S182. Ans.(c)

Sol. Observing graph students are more in year 2014 and 2015 than any other year so, students taking admission in each institute is second highest in 2014.

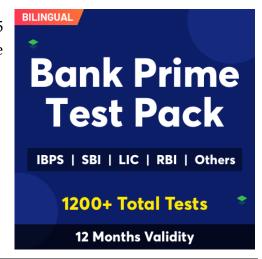
S183. Ans.(e)

Sol. Students taking admission in institute A in 2010

$$= \frac{6}{5} \times 250$$

$$= 300$$

Required
$$\% = \frac{300+300}{250+500} \times 100 = \frac{600}{750} \times 100 = 80\%$$



S184. Ans.(b)

Sol. Required percentage =
$$\frac{(400+250+600)-(250+350+450)}{400+250+600} \times 100 = \frac{200}{1250} \times 100 = 16\%$$

S185. Ans.(d)

S186. Ans.(d)

Sol. Ratio of profit

$$Veer : Manyu 6000 \times x : 8000(x + 4) 3x : 4x + 16$$

Let profit of Veer = Rs.
$$y$$

And profit of Manyu = Rs. (y+3900)

ATQ,

$$y + y + 3900 = 12900 \dots (i)$$

$$y = Rs.4500$$

profit share of Manyu = Rs. 8400

so,

$$\frac{3x}{4x+16} = \frac{4500}{8400}$$

On solving
$$x = 10$$
 months

S187. Ans.(a)

Sol. Ratio of efficiency of A to B = 100y : 160y

$$= 5y : 8y$$

Total work =
$$(5y + 8y) \times 6$$
 unit = 78y units

So A alone can complete whole work in(x) = $\frac{78y}{5y}$ days

$$= 15\frac{3}{5} \text{ days}$$

S188. Ans.(e)

Sol. Probability for ball being red from bag $A = \frac{1}{2} \times \frac{x}{x+5}$

Probability for ball being red from bag B = $\frac{1}{2} \times \frac{8}{x+8}$

$$\Rightarrow \frac{1}{2} \left[\frac{x}{x+5} + \frac{8}{x+8} \right] = \frac{5}{9}$$

$$\frac{10}{9} = \frac{x(x+8)+8(x+5)}{(x+8)(x+5)}$$

$$\frac{10}{9} = \frac{x^2 + 8x + 8x + 40}{x^2 + 13x + 40}$$

$$10x^2 + 130x + 400 = 9x^2 + 144x + 360$$

$$x^2 - 14x + 40 = 0$$

$$x^2 - 10x - 4x + 40 = 0$$

$$x(x-10) - 4(x-10) = 0$$

$$x = 10,4$$

S189. Ans.(e)

Sol. Speed of train =
$$\frac{480-360}{(T+4)-T}$$

$$=\frac{120}{4}$$
 = 30 km/hr

Speed of bus =
$$\frac{30}{6} \times 5 = 25 \text{ km/hr}$$

Required time =
$$\frac{800}{30+25} = \frac{800}{55}$$
 hour

$$= 14 \frac{6}{11} \text{ hours}$$

S190. Ans.(c)

Sol. Let cost price of A and B be Rs. 200 and Rs. 300 respectively

Total profit of A and B will be =
$$200 \times \frac{20}{100} + 300 \times \frac{25}{100}$$

$$= 40 + 75 = 115 \text{ Rs}.$$

Required profit percentage =
$$\frac{115}{500} \times 100 = 23\%$$

S191. Ans.(d)

Sol. In this question, we don't have to calculate values.

Let total population of all 6 villages be *x*

So, female in village
$$P = \frac{3}{5} \times 18\% x$$

Female in village
$$Q = \frac{1}{5} \times 15\% x$$

Required percentage =
$$\frac{\frac{3}{5} \times 18}{\frac{1}{5} \times 15} \times 100 = 360\%$$

S192. Ans.(c)

Sol. Sum of population of R and S in 2017

$$= \frac{6}{5} \times \frac{16}{100} \times 85000 + \frac{5}{4} \times \frac{20}{100} \times 85000$$

$$= 850 \left(\frac{6}{5} \times 16 + \frac{5}{4} \times 20 \right) = 37570$$

S193. Ans.(d)

Sol. Literate male in village
$$S = \frac{3}{5} \times \frac{20}{100} \times 85000 \times \frac{80}{100}$$

Literate female in village
$$S = \frac{2}{5} \times \frac{20}{100} \times 85000 \times \frac{90}{100}$$

Require
$$\% = \frac{20 \times 850 \left(\frac{3}{5} \times \frac{4}{5} + \frac{2}{5} \times \frac{9}{10}\right)}{20 \times 850} \times 100 = \left(\frac{12}{25} + \frac{18}{50}\right) \times 100 = \frac{(24 + 18)}{50} \times 100 = 84\%$$

S194. Ans.(a)

Sol. Required ratio =
$$\frac{(18\%+15\%+20\%)\times85000}{(16\%+14\%+17\%)\times85000} = 53:47$$

S195. Ans.(d)

Sol. Total females in village R & U

$$=\frac{15}{100} \times 85000 = 12750$$

Let females in village U = x

So,

$$\left(x + \frac{2}{3}x\right) = \frac{15}{100} \times 85000 \frac{5}{3}x = 12750 \ x = 7650$$

Males in village U

$$= 17 \times 850 - 7650$$

= 6800

S196. Ans.(b)

Sol. On adding both equations x + y = 55(a)

On subtracting both equations y - x = 9(b)

From (a) and (b),

$$x = 23, y = 32$$

$$\therefore x < y$$

S197. Ans.(c)

Sol.

I.
$$x^2 - 11x - 7x + 77 = 0$$

 $\Rightarrow x(x - 11) - 7(x - 11) = 0$
 $\Rightarrow x = 11 \text{ or } 7$

II. $3y^2 - 21y - 4y + 28 = 0$
 $\Rightarrow 3y(y - 7) - 4(y - 7) = 0$

$$x^{2} - 11x - 7x + 77 = 0$$

$$\Rightarrow x(x - 11) - 7(x - 11) = 0$$

$$\Rightarrow x = 11 \text{ or } 7$$
II. $3y^{2} - 21y - 4y + 28 = 0$

$$\Rightarrow 3y(y - 7) - 4(y - 7) = 0$$

$$\Rightarrow y = 7 \text{ or } \frac{4}{3}$$

$$\therefore x \ge y$$

S198. Ans.(d)

Sol. I.
$$2x^2 - 8x - 4x + 16 = 0$$

$$\Rightarrow 2x(x-4) - 4(x-4) = 0$$

$$\Rightarrow x = 4$$
or 2

$$II.y^2 - 5y - 4y + 20 = 0$$

$$\Rightarrow y(y-5) - 4(y-5) = 0$$

$$\Rightarrow v = 5 \text{ or } 4$$

$$\therefore x \leq y$$

S199. Ans.(b)

Sol. I.
$$x^2 = \frac{9}{4}$$

 $\Rightarrow x = \pm \frac{3}{2}$
II. $2y^2 - 5y - 4y + 10 = 0$

$$\Rightarrow y(2y - 5) - 2(2y - 5) = 0$$

$$\Rightarrow y = 2 \text{or} \frac{5}{2}$$

 $\therefore x < y$

S200. Ans.(b)

Sol. I.
$$7x^2 + 7x - x - 1 = 0$$

 $\Rightarrow 7x(x+1) - 1(x+1) = 0$
 $\Rightarrow x = -1 \text{ or } \frac{1}{7}$
II. $32y^2 - 12y - 8y + 3 = 0$
 $\Rightarrow 4y(8y - 3) - 1(8y - 3) = 0$
 $\Rightarrow y = \frac{1}{4} \text{ or } \frac{3}{8}$
 $\therefore x < y$



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