



## CBRT - 2020 Question Paper Grid

Government of Goa

28 November 2020

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**Subjects** 
  
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### Junior Scale Officer(Prescreening Test)

**Passage:**

Answer the following questions based on passage below:

When we begin to study a phenomenon, we do not actually know what we are studying. In order to learn more about it, we formulate a hypothesis. It is important to keep in mind however, that until we thoroughly test our hypothesis and compare the results of our experiments with its predictions, we are not on solid ground. Of course, where there are gaps in our knowledge, we must have a hypothesis, but we must also test that hypothesis-rigorously and with an uncompromising regard for the truth. Where the hypothesis is inaccurate, we must do more research. The hypothesis of the industrial civilization was that by acquiring and consuming more things we would become more happy, fulfilled, and healthy. Every day, this seems less likely.

**Itemcode :** **PT1651**

**Q1 :** Find the word or phrase from the passage that can be an alternative for "an untested idea suggested as an explanation for something"

- (a) hypothesis
- (b) phenomenon
- (c) experiment
- (d) prediction

**Itemcode :** **PT1652**

**Q2 :** The formulation of a hypothesis is a must when we

- (a) begin to study
- (b) begin to experiment
- (c) find gaps in our knowledge
- (d) have a regard for truth

**Itemcode :** **PT1653**

**Q3 :** Select from the following options the one that is closely synonymous with "absolute or undeviating or unyielding"

- (a) rigorous
- (b) uncompromising
- (c) inaccurate
- (d) thorough

**Itemcode :** **PT1654**

**Q4 :** In the statement "...and compare the results of our experiment with its prediction", the phrase "its prediction" implies

- (a) the prediction of the hypothesis
- (b) the prediction of the experiment
- (c) the prediction of a new phenomenon
- (d) the rigorous test of truth

**Itemcode :** **PT1655**

**Q5 :** "The hypothesis of the industrial civilization was that by acquiring and consuming more things we would become more happy, fulfilled, and healthy". The passage suggests that on the basis of our experience and observation,

- (a) it is proven and established
- (b) it needs another hypothesis
- (c) it is unlikely to be true
- (d) it is unlikely to be false

**Passage:**

Answer the following questions based on passage below:

On March 12, 1930, when the British still had a firm grip on India, Mahatma Gandhi and seventy-eight of his disciples strode out of the Sabarmati ashram towards the sea. In the twenty-four days that followed they walked two hundred miles, picking up more and more companions as village after village turned out to cheer the Mahatma and raise the new Indian flag. By the time they reached their destination, the seashore at Dandi, the group numbered several thousand. Earlier in March, Gandhi had sent a letter to the British viceroy protesting the Salt Act, which forbade Indians to make their own salt and left them dependent on a British monopoly for what is, in a tropical country, a necessity of life. The viceroy did not reply. To Gandhi this was the "opportunity of a lifetime."

**Itemcode :** **PT1656**

**Q6 :** Gandhiji wrote to the British viceroy because he was

- (a) against the British viceroy
- (b) going to make salt
- (c) leading the salt march
- (d) protesting the salt act

**Itemcode :** PT1657

**Q7 :** The Salt Act is said to be unjust to the Indians because

- (a) it decreed that Indians make their own salt
- (b) salt was a necessity of life in the tropics
- (c) it discouraged British monopoly
- (d) it made Indians protest against Britain.

**Itemcode :** PT1658

**Q8 :** State whether the following premises are true or false in terms of being drawn from the statement: "To Gandhi this was the 'opportunity of life'":

- (i) to write a letter to the viceroy expressing his displeasure over the Salt Act
- (ii) to protest the Salt Act which forbade Indians from making their own salt
- (iii) to rally thousands of people against the British monopoly over salt
- (iv) to lead the volunteers from Sabarmati Ashram to protest peacefully

- (a) premise (i) is true but premises (ii), (iii) and (iv) are false
- (b) all the premises (i), (ii), (iii), (iv) are true
- (c) premise (i) and (iv) are false, but premise (ii), (iii) are true
- (d) premise (i) is false but premises (ii), (iii) and (iv) are true

**Itemcode :** PT1659

**Q9 :** Select the correct chronological sequence for the following statements:

- (i) Gandhi ji leads seventy-eight volunteers from Sabarmati Ashram to Dandi
- (ii) Gandhi ji writes a letter to the viceroy regarding the Salt Act
- (iii) Thousands join the protest against the British monopoly over salt
- (iv) Several thousand protesters assembled at Dandi against the Salt Act.

- (a) (ii); (i); (iii); (iv)
- (b) (i); (ii); (iii); (iv)
- (c) (ii); (iii); (iv); (i)
- (d) (i); (iii); (ii); (iv)

**Itemcode :** PT1660

**Q10** To underscore the dire need of Indian people for salt, as against the British monopoly on salt, India is referred to as :

- (a) still being in the British grip
- (b) a dependent
- (c) a tropical country
- (d) none of the above

**Itemcode :** PT1601

**Q11** Sia, Mia, and Tia got together for a round-robin badminton tournament, where, as usual, the winner stays on after each game to play the person who sat out that game. At the end of their afternoon, Mia is exhausted, having played the last seven straight games. Sia, who is less exhausted, tallies up the games played: Sia played eight games. Mia played 12 games. Tia played 14 games. Who won the fourth game against whom?

- (a) Tia beat Sia
- (b) Mia beat Tia
- (c) Sia beat Tia
- (d) Tia beat Mia

**Itemcode :** PT1602

**Q12** Smitha wants to find her mother's birthdate. The only clue she found was a letter written from her grandfather to her grandmother on the day her mother was born. Unfortunately, some of the characters were smudged out, represented here with a "\_\_\_\_". (The length of the line does not reflect the number of smudged characters.)

"Dear Simran,

Little did I know when I headed to work this Monday morning, that by evening we would have a beautiful baby girl. And on our wedding anniversary, no less! It makes me think back to that incredible weekend day, J\_\_\_\_ 27th, 19\_\_\_\_, when we first shared our vow to create a family together, and, well, here we are! Happy eighth anniversary, my love.

Love, Rahul"

The question: When was Smitha's mother born?

- (a) January 27th 1954
- (b) July 27th 1924
- (c) January 27th 1908
- (d) June 27th 1976

**Itemcode :** PT1603

**Q13** After Covid is over a newly married couple, Roshan and Roshni, goes to a restaurant to celebrate their newfound freedom. They find four other couples with the same idea in the restaurant. Eager for social contact, every person in the five couples shake hands with each person they haven't yet met. Offcourse, they do not shake hands with once own spouse.

It actually turns out many of the people had known each other before, so when Roshni asks everyone how many hands did you shake, she remarkably gets nine different answers! That is each of the 9 other persons answer some number in: 0,1,2,3,4,5,6,7,8.

The question: How many people did Roshan shake hand with?

- (a) 2
- (b) 4
- (c) 6
- (d) 7

Itemcode : **PT1604**

**Q14** There are 100 classrooms in a school. Every night, the school principal makes sure all the classrooms are closed so that there will be an orderly start to the next day. One day, 100 mischievous students decide that they will play a prank. The students all meet before school starts and line up. The first student then walks down the hallway, and opens every classroom. The next student follows by closing every other classroom (starting at the second classroom). Student 3 then goes to every third classroom (starting with the third) and opens it if it's closed, and closes it if it's open. Student 4 follows by opening every fourth classroom if it's closed and closing it if it's open. This goes on and on until Student 100 finally goes to the hundredth classroom. When the principal arrives later in the morning, which among the following list of classrooms contains a closed classroom.

- (a) 1, 25, 81
- (b) 9, 49, 100
- (c) 4, 36, 64
- (d) 16, 75, 96

Itemcode : **PT1605**

**Q15** There are three hats each with an accompanying statement.

- : Hat One: The cat is in this hat.
- Hat Two: The cat is not in this hat.
- Hat Three: The cat is not in hat one.

Exactly one of the statement is true. Exactly one hat contains a cat. Which hat contains a cat?

- (a) Hat One
- (b) Hat Two
- (c) Hat Three
- (d) Not enough information

Itemcode : **PT1606**

**Q16** Five thieves have obtained 100 gold coins and have to divide up the loot. The thieves are all extremely intelligent, treacherous and selfish (especially the captain). The captain always proposes a distribution of the loot. All thieves vote on the proposal, and if half the thieves or more say "Yes", the loot is divided as proposed, as no thief would be willing to take on the captain without superior force on their side. If the captain fails to obtain support of at least half his crew (which includes himself), he faces a mutiny, and all thieves will turn against him and kill him. The thieves start over again with the next senior thief as captain.

What is the maximum number of coins the captain can keep without risking his life?

- (a) 95
- (b) 96
- (c) 97
- (d) 98

Itemcode : **PT1607**

**Q17** Find next number in the sequence: 1 , 17 , 98 , 354, ?

:

- (a) 527
- (b) 625
- (c) 979
- (d) 1023

Itemcode : **PT1608**

**Q18** A girl meets a lion and tiger in the forest. The lion lies every Monday, Tuesday and Wednesday and the other days he speaks the truth. The tiger lies on Thursdays, Fridays and Saturdays, and the other days of the week he speaks the truth. "Yesterday I was lying," the lion told the girl. "So was I," said the tiger. What day is it?

- (a) Sunday
- (b) Wednesday
- (c) Thursday
- (d) Saturday

Itemcode : **PT1609**

**Q19** Susan and Lisa decided to play tennis against each other. They bet Rs 100 on each game they played. Susan won three bets and Lisa gained Rs. 500 after all the games. How many games did they play?

- (a) 6
- (b) 9
- (c) 11
- (d) 13

Itemcode : **PT1610**

**Q20** A teacher writes six words on a board: "cat dog has max dim tag." She selects one word from each of these six words and gives three students, Amar, Bob and Cathy each a piece of paper with one letter from the chosen word. Then she asks, "Amar, do you know the word?" Amar immediately replies yes. She asks, "Bob, do you know the word?" He thinks for a moment and replies yes. Then she asks Cathy the same question. She thinks and then replies yes. What is the word?

- (a) cat
- (b) dog
- (c) has
- (d) dim

**Itemcode** : **PT1611**

**Q21** There is a restaurant with 25 seats in line. Since it is Covid times, people have to sit as far away as possible. If one person walks in and find that all sits are adjacent to somebody the person will walk away. The restaurant owner wants as many people as possible. The owner can tell the first customer where to sit. All the other customers will pick the farthest possible seat from others.

So, where should the owner ask the first customer to sit? [Hint: The best possible arrangement is customers sitting at seat number 1, 3, 5, 7, ..., 25]

- (a) 1
- (b) 3
- (c) 7
- (d) 9

**Itemcode** : **PT1612**

**Q22** The five sentences (labelled 1, 2, 3, 4 and 5) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. Plato, of course, detested democracy.
2. His pupil Aristotle took a more tempered view in his book The Politics, as we will see.
3. To him it was the rule of doxa over philosophia, of opinion over knowledge.
4. While democracy was for him a necessary condition for good government, it was far from a sufficient condition.
5. If we are talking of justice and of good government then we are talking of a complexity of different concepts, values, and practices, and a complexity that never remains the same.

- (a) 13245
- (b) 12345
- (c) 45123
- (d) 42531

**Itemcode** : **PT1613**

**Q23** The passage given below is followed by four alternative summaries. Choose the option that best captures the essence of the passage. Key in the number of the option you choose as your answer.

Many meanings attach to the word democracy. If there is one true meaning then it is, indeed, as Plato might have said, stored up in heaven; but unhappily has not yet been communicated to us. The word is what some philosophers have called 'an essentially contested concept', one of those terms we can never all agree to define in the same way because the very definition carries a different social, moral, or political agenda. But somehow, nowadays at least, we cannot live without it.

- (a) Democracy, although necessary in the modern world, is not a clearly defined concept.
- (b) Democracy, although necessary in the modern world, has baffled philosophers for centuries.
- (c) Democracy is a concept that, although of great value in the present world, is greatly misunderstood.
- (d) Democracy is a concept that is necessary but will never really be understood.

**Itemcode** : **PT1614**

**Q24** The five sentences (labelled 1, 2, 3, 4 and 5) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. Though, of course, the whole point is to de-stress and enjoy yourself - it's just so incredibly calming, everyone says it's like being a child again
2. I'd say join our colouring book club, except you might want to practise a little first.
3. People always underestimate how hard it is to stay inside the lines, before you even get to the shading part.
4. It's so therapeutic, you should try it.
5. Maybe start off with some dot-to-dot?

- (a) 45132
- (b) 42135
- (c) 42513
- (d) 42531

**Itemcode** : **PT1625**

**Q25** Find the missing number in the series?

: 4, 18, ?, 100, 180, 294, 448

- (a) 48
- (b) 52
- (c) 58
- (d) 62

**Itemcode** : **PT1626**

**Q26** What should come in place of question mark (?) in the following number series?

: 132 156 ? 210 240 272

- (a) 171
- (b) 182
- (c) 191
- (d) 196

Itemcode : **PT1627**

**Q27** Find the wrong number in the series.  
: 3, 8, 15, 24, 34, 48, 63

- (a) 15
- (b) 24
- (c) 34
- (d) 48

Itemcode : **PT1628**

**Q28** Here are some words translated from an artificial language.  
:

Gemolinea means fair warning

Gerimitu means report card

Gilageri means weather report

Which word could mean "fair weather"?

- (a) Gemogila
- (b) Gerigeme
- (c) Gemomitu
- (d) Germita

Itemcode : **PT1629**

**Q29** Here are some words translated from an artificial language.

: Mallonpiml means blue ligh  
Mallontifl means blueberry  
Arpantifl means raspberry  
Which word could means "lighthouse"?

- (a) Tifmallon
- (b) Pimlarpan
- (c) Mallonarpan
- (d) Pimldoken

Itemcode : **PT1630**

**Q30** If + means \*,  $\div$  means -, \* means  $\div$  and - means+. What will be the value of  $4+5\div 7-42*6=?$   
:

- (a) 20
- (b) 19
- (c) 21
- (d) 26

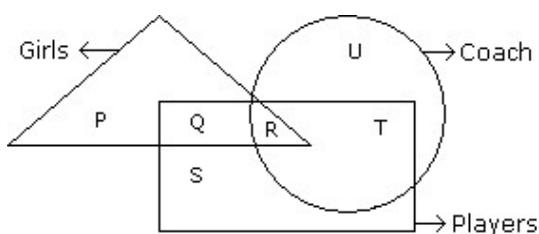
Itemcode : **PT1631**

**Q31** Which of the following diagrams indicates the best relation between Factory, Product and Machinery?  
:

- (a)
- (b)
- (c)
- (d)

Itemcode : **PT1632**

**Q32** In the following figure triangle represents 'girls', square players and circle-coach. Which part of the diagram represents the girls who are player but not coach?  
:



- (a) Q
- (b) S
- (c) R
- (d) P

Itemcode : **PT1633**

**Q33** 'Ram' is the father of 'Kusha' but 'Kusha' is not his son. 'Mala' is the daughter of 'Kusha'. 'Shalaka' is the spouse of

: 'Ram'. 'Gopal' is the brother of 'Kusha'. 'Hari' is the son of 'Gopal'. 'Meena' is the spouse of 'Gopal'. 'Ganpat' is the father of 'Meena'. Who is the grand daughter of 'Ram'?

- (a) Hari
- (b) Mala
- (c) Meena
- (d) Shalaka

Itemcode : **PT1634**

**Q34** Pointing to a gentleman, Dinesh said "His only brother is the father of my daughter's father." How is the gentleman related to Dinesh?

- (a) Uncle
- (b) Grandfather
- (c) Father
- (d) Brother- in-law

Itemcode : **PT1635**

**Q35** Pointing to a photograph, Amar said, "I have no brother or sister but that man's father is my father's son." Whose photograph was it?

- (a) His son's
- (b) His father's
- (c) His nephew's
- (d) His own

Itemcode : **PT1636**

**Q36** Looking at the portrait of a man, Ashok said, 'His mother is the wife of my father's son. Brothers and sisters I have none'. At whose portrait was Ashok looking?

- (a) His cousin
- (b) His nephew
- (c) His uncle
- (d) His son

Itemcode : **PT1637**

**Q37** A family consists of six members P, Q, R, X, Y and Z. Q is the son of R but R is not mother of Q. P and R are a married couple. Y is the brother of R. X is the daughter of P. Z is the brother of P. Who is the father of Q ?

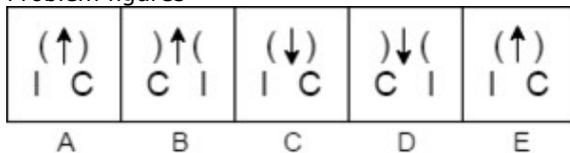
- (a) P
- (b) R
- (c) X
- (d) Z

Itemcode : **PT1638**

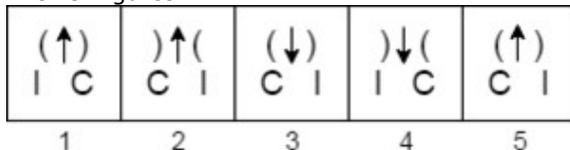
**Q38** Which answer figure will continue the same series as established by the problem figures?

:

Problem figures



Answer figures

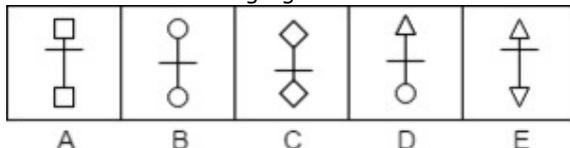


- (a) 1
- (b) 2
- (c) 3
- (d) 4

Itemcode : **PT1639**

**Q39** Which of the following figures is different from others?

:



- (a) figure A
- (b) figure B
- (c) figure C
- (d) figure D

Itemcode : **PT1640**

**Q40** Frugal: Parsimonious :: ?

:

- (a) Poor: Misery
- (b) Love: Hate

- (c) Rich: Poor  
(d) Pleasure: Ecstasy

**Itemcode** : **PT1641**

**Q41** Race: Fatigue :: Fast: ?

:

- (a) Juice  
(b) Sleepy  
(c) Hunger  
(d) Excitement

**Itemcode** : **PT1642**

**Q42** Water: Pitcher :: ? : Vase

:

- (a) Fruits  
(b) Flowers  
(c) Ice  
(d) None of these

**Itemcode** : **PT1643**

**Q43** December: ? :: May: Summer

:

- (a) Spring  
(b) Autumn  
(c) Winter  
(d) Monsoon

**Itemcode** : **PT1644**

**Q44** N: 2744:: E:?

:

- (a) 125  
(b) 216  
(c) 625  
(d) 50

**Itemcode** : **PT1645**

**Q45** If the first and second letters in the word 'TELEPHONES' were interchanged, also the third and the fourth letters, 5th and the 6th letters and so on, which letter would be the seventh letter counting from your left?

- (a) O  
(b) N  
(c) H  
(d) P

**Itemcode** : **PT1646**

**Q46** Look at this series II, VI, X, XIV, XVIII, XXII, ..... What number should fill the blank?

:

- (a) XXIV  
(b) XXVI  
(c) XXVII  
(d) XXVIII

**Itemcode** : **PT1647**

**Q47** Look at this series: A4, \_\_, C16, D32, E64, .... What number should fill the blank?

:

- (a) A16  
(b) G4  
(c) B8  
(d) B6

**Itemcode** : **PT1648**

**Q48** In each questions below is given a statement followed by two courses of action numbered (a) and (b).Give answer.

: Statement

One of the problems facing food processing industry is the irregular supply of raw material. The producers of raw material are not getting a reasonable price.

Courses of Action

I. The government should regulate the supply of raw material to other industries also.

II. The government should announce an attractive package to insure regular supply of raw material for food processing industry.

- (a) if only I follows ;  
(b) is only II follows ;  
(c) if either I or II follows :  
(d) if neither I nor II follows, and

**Itemcode** : **PT1649**

**Q49** In each questions below is given a statement followed by two courses of action numbered (a) and (b).Give answer.

:

Statement:

Doordarshan is concerned about the quality of its programmers particularly in view of stiff competition. It is facing from STAR and other satellite TV channels and contemplating various measures to attract talent for its programmers.

Courses of Action

I. In an effort to attract talent. The Doordarshan has decided to revise its fee structure for the artists.

II. The fee structure should not be revised until other electronic media also revise it.

- (a) if only I follows ;  
 (b) if only II follows ;  
 (c) if either I or II follows ;  
 (d) if neither I nor II follows, and

Itemcode : **PT1650****Q50** Verity the truth

: Kamla is going at night in the north direction and pole star is visible to her." The pole star will be visible to her at her right." Which one of the following answer is correct ?

- (a) Always  
 (b) Sometimes  
 (c) Often  
 (d) Never

Passage:

Answer the questions on the basis of the information given below.

In a factory, there are seven machines - A through G - arranged in a straight line, not necessarily in the same order. Material is transported among these machines in boxes. The speed of any box is inversely proportional to its weight. If the weight of a box is 10 kg, it moves at a speed of 2 m/sec. Further, it is known that:

- (1) The time taken to transport 30 kg from C to A is the same as the time taken to transport 10 kg from C to E.  
 (2) The distance between two consecutive machines is 10 m.  
 (3) It takes less time to transport 20 kg from F to C than it takes to transport 10 kg from F to G.  
 (4) It takes 90 s to transport 30 kg from D to G.  
 (5) It takes the same time to transport 30 kg from B to G and 20 kg from B to A. A is to the left of B.

Itemcode : **PT1615****Q51** How much time will it take to transport 30 kg from A to F?

:

- (a) 30 sec  
 (b) 45 sec  
 (c) 20 sec  
 (d) 60 sec

Itemcode : **PT1616****Q52** Which machine is to the immediate left of B?

:

- (a) E  
 (b) C  
 (c) F  
 (d) A

Itemcode : **PT1617****Q53** Which machine is fourth to the right of C?

:

- (a) F  
 (b) B  
 (c) E  
 (d) G

Passage:

Answer the questions on the basis of the information given below.

Five men checked into a hotel with a bag of peanuts and a monkey. They planned to divide the peanuts evenly the following morning. However, during the night, one of the man got up, gave one peanut to monkey out of the bag, divided the remaining peanuts into five equal parts, took one part and put the remaining peanuts back into the bag. A little later, second man, who did not know anything about the activity of the first person, did the same thing what first person did. Likewise, during the night the third, fourth and fifth persons did the same thing what the first two persons had done without knowing about the activities of other persons. The next morning they divided the remaining peanuts in five equal parts with no leftover. The bag initially had least possible number of peanuts, and no peanut was broken while division.

Itemcode : **PT1618****Q54** How many peanuts were originally in the bag?

:

- (a) 1535  
 (b) 204  
 (c) 3121  
 (d) 2437

Itemcode : **PT1619****Q55** How many peanuts, in all, did the 3rd man get?

:

- (a) 603

- (b) 503
- (c) 633
- (d) 545

Itemcode : **PT1620**

**Q56** How many peanuts, in all, did the 1st man get?  
:

- (a) 383
- (b) 484
- (c) 686
- (d) 828

**Passage:**

Answer the questions based on the following information.

King Ashoka, organised a horse-riding competition. The entry fee for participation was one gold coin, and the total number of coins collected in the form of entry fee was distributed among those who secured top four positions. No two participants out of those who secured top four positions got the same number of coins. The participant who secured the first position got highest number of coins, the participant who secure the second position got second highest number of coins and so on. A, B, C and D secured the top four positions in the competition. It is also known that:

I. A did not secure the first position, B did not secure the second position, C did not secure the third position and D did not secure the fourth position.

II. B got more number of coins than C.

III. D got more number of coins than B.

Itemcode : **PT1621**

**Q57** The position secured by C was  
:

- (a) 4
- (b) 2
- (c) 1
- (d) Cannot be determined

Itemcode : **PT1622**

**Q58** If 12 participants took part in the competition, then the number of coins received by B was  
:

- (a) 2
- (b) 3
- (c) 4
- (d) Cannot be determined

Itemcode : **PT1623**

**Q59** If 13 participants took part in the competition and D got 7 coins, how many coins did A get?  
:

- (a) 1
- (b) 2
- (c) 3
- (d) Cannot be determined

Itemcode : **PT1624**

**Q60** If 13 participants took part in the competition and A won 4 coins, how many coins did D get?  
:

- (a) 7
- (b) 5
- (c) 6
- (d) Cannot be determined