IBPS SO PRELIMINARY GRAND TEST – ISP171204

ANSWER KEY

1. (1)	21. (3)	41. (4)	61. (4)	81. (3)	101.(4)	121. (1)	141. (1)
2. (5)	22. (5)	42. (3)	62. (1)	82. (1)	102. (2)	122. (5)	142. (1)
3. (2)	23. (3)	43. (4)	63. (3)	83. (4)	103. (1)	123. (4)	143. (1)
4. (3)	24. (4)	44. (3)	64. (2)	84. (1)	104. (3)	124. (2)	144. (3)
5. (1)	25. (1)	45. (4)	65. (5)	85. (4)	105. (3)	125. (5)	145. (4)
6. (4)	26. (2)	46. (3)	66. (2)	86. (3)	106. (1)	126. (1)	146. (2)
7. (2)	27. (3)	47. (5)	67. (5)	87. (1)	107. (3)	127. (4)	147. (3)
8. (3)	28. (2)	48. (4)	68. (5)	88. (1)	108. (2)	128. (4)	148. (1)
9. (1)	29. (5)	49. (4)	69. (4)	89. (2)	109. (2)	129. (2)	149. (2)
10. (5)	30. (3)	50. (2)	70. (4)	90. (3)	110. (5)	130. (2)	150. (5)
11. (1)	31. (5)	51. (3)	71. (4)	91. (4)	111. (4)	131. (5)	
12. (1)	32. (3)	52. (2)	72. (1)	92. (3)	112. (5)	132. (3)	
13. (5)	33. (4)	53. (3)	73. (2)	93. (4)	113. (4)	133. (3)	
14. (4)	34. (2)	54. (5)	74. (3)	94. (1)	114. (2)	134. (4)	
15. (3)	35. (2)	55. (1)	75. (2)	95. (2)	115. (3)	135. (1)	
16. (2)	36. (3)	56. (4)	76. (3)	96. (2)	116. (4)	136. (4)	
17. (3)	37. (3)	57. (3)	77. (4)	97. (1)	117. (5)	137. (1)	
18. (4)	38. (3)	58. (2)	78. (1)	98. (3)	118. (2)	138. (3)	
19. (1)	39. (5)	59. (3)	79. (5)	99. (1)	119. (2)	139. (3)	
20. (5)	40. (4)	60. (1)	80. (1)	100. (3)	120. (4)	140. (2)	

HINTS & SOLUTIONS

1. (1)
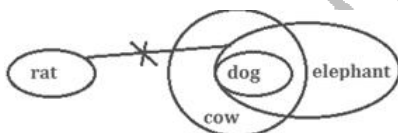
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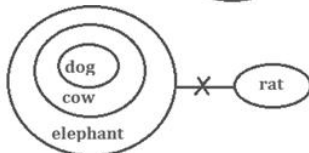
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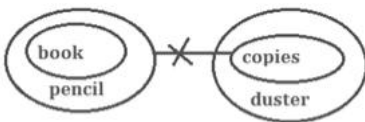
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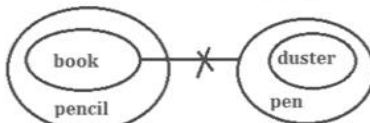
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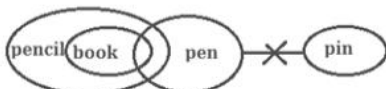
6-10.

Professors	Subject			Buildings
	English	Mathematics	History	
G	√	×	×	Three
H	×	×	√	Six
I	×	√	×	Five
J	×	×	√	Seven
K	√	×	×	Four
L	×	√	×	One
M	×	√	×	Two

6. (4)　　　　　7. (2)

8. (3)　　　　　9. (1)　　　　　10. (5)

11. (1) Why was the airport was put on a full alert? The authority must be assuming assumption I. Hence, Assumption I is implicit but II is not. Again, to put the airport on a full alert indicates that the authority must be assuming assumption III also.

12. (1) Only assumption I is implicit. III is not implicit because the reason behind this decision is that the witnesses or victims can't be felt any problem regarding the case. They can be pressurized by the accused to change their witnesses. The decision is not given because of the court's immediate concern for the victims.

13. (5) Only I follows. What is being told is genuine .On learning this, the blood donors will get attracted by the win-win proposition, thus simultaneously meeting the blood requirement to a large extent. Statement II is not a

practical course of action. Statement III is not an immediate course of action as blood banks can be created only after the sufficient blood donors are available.

14. (4) Action I is the right course of action because training to the staff as to safety aspects of handling explosive material will reduce the chances of such accidents in future .Action II is also a right course as it will work as deterrent to check any negligence, in such work.

15. (3) statement (c) is the correct option because according to this the increase in crime rate has been contributed by other factors , not leniency in the punishment. so it weakens the given passage.
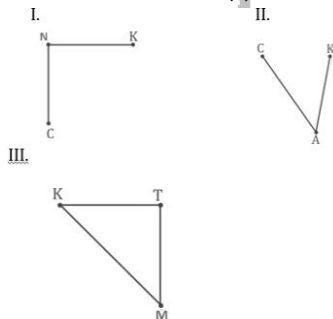
16 – 20.

Student	Subject	Sport
P	Biology	Cricket
Q	History	Badminton
R	Philosophy	Hockey
S	Geography	Basket Ball
T	English	Football
V	Physics	Table Tennis
W	Chemistry	Volleyball

16. (2)   17. (3)
18. (4)   19. (1)   20. (5)
21-25.

21. (3)   22. (5)
23. (3)   24. (4)
26. (2)   25. (1)
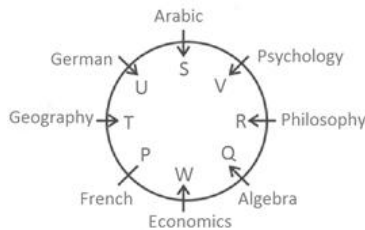
Only I and III statements are necessary.

27. (3)   I. R A _ G   II. N _ E
           III. A _ _ E
Statements I and II are sufficient to answer.

28. (2) From I- Neetu's ank will be helpful in obtaining Babita's rank and the latter's rank will be helpful in obtaining Ritika's rank.
         From II & III – Kamla's rank will be helpful in obtaining Babita's rank and the latter will be helpful in obtaining Ritika's rank.

29. (5) From The first statement S can be either mother or father of T. From the second statement we can say that G is the mother of T. So we can say that S is not the mother of T. Hence the answer can be obtained from I & II both statements.

30. (3) From statement I, K is facing the centre and A is third to the right of K. Now if A is facing the centre, the person on his second right should be K but it is given B. So A is not facing the centre i.e. all of them are not facing the centre.

Similarly from statement II, if all are facing the centre, then second to the right of C should be F but it is given as K which means all of them are not facing the centre.

31. (5) The conclusion of the argument is that landmark preservation laws deprive landlords of their right to use their own property. (e) comes to grips with this assumption by nothing that a landmark building may not be purely private property and some part of building may belong to the community at large. (a) does not valid as it represents only a partial attack on argument.(b) strengthens the claims that landmark preservation laws represent an unwanted interference with the rights of the landlord.

32. (3) The argument states that people who follow the appropriate strategies for counteracting their genetic susceptibilities to disease will never get sick. How can it be that they would never get sick? The argument requires an assumption about the cause of all sickness that every known disease of humans must correspond to some genetic susceptibilities. So (c) is the correct option.

33. (4) The author argues for the following connection: videos take money away from movies. What choices (d) asserts, in effect, is that the money spent on videos came from some other source.so,(d) statement undermines the given passage.

34. (2) A hike in fees is no means to make the students more serious in studies. So, argument I is vague. However, with the increase in fees, poor meritorious students would not be able to afford post-graduate studies. So, argument II holds.

35. (2) Oil, being an essential commodity, our country must keep it in reserve. So, argument I is vague, while argument II holds as it provides a substantial reason for the same.

36-40.

FRIENDS	COLLEAGUE	MARKET	ITEMS
G	M/N	Janpath	Clothes
H	X	Lajpat	Jewellery
I	Z	Sarojini	Jewellery
J	M/N	Janpath	Footwear
K	Y	Chandni chowk	Bag
L	O	Connaught place	Footwear

36. (3)   37. (3)
38. (3)   39. (5)   40. (4)

41-45. Input: next 57 problem 82 14 trend 02 purchase growth 41

Step I :growth next 57 problem 82 14 trend 02 purchase 41

Step II :growth 02 next 57 problem 82 14 trend purchase 41

Step III : growth 02 next 14 57 problem 82 trend purchase 41

Step IV : growth 02 next 14 problem 57 82 trend purchase 41

Step V : growth 02 next 14 problem 41 57 82 trend purchase

Step VI : growth 02 next 14 problem 41 purchase 57 82 trend

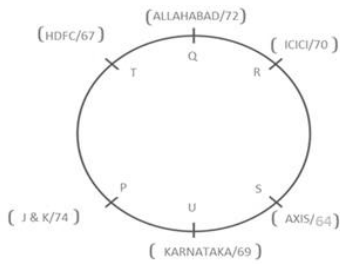Step VII : growth 02 next 14 problem 41 purchase 57 trend 82

41. (4)   42. (3)
43. (4)   44. (3)   45. (4)

46-50.

46. (3)   47. (5)

48. (4)   49. (4)   50. (2)

51. (3) M.P. of mobile handset $= \frac{3325}{95} \times 100$
= 3500 Rs.
$\therefore$ tax $= \frac{20}{100} \times 3500$
= 700 Rs.
$\therefore$ Total discount = (3500 − 3325) + 700
= 875 Rs.

52. (2) Alcohol in First Mixture $= \frac{3}{7}$
Alcohol in second mixture $= \frac{5}{11}$
Alcohol in Final mixture $= \frac{4}{9}$
$\therefore$

$\frac{3}{7}$ $\frac{5}{11}$

$\frac{4}{9}$

$\frac{1}{99}$: $\frac{1}{63}$

$\therefore$ Ratio $= \frac{1}{99} : \frac{1}{63} = 7 : 11$
$\therefore$ Required quantity $= \frac{7}{18} \times 18 = 7$ litres

53. (3) The amount of petrol left after 4 operations $= 200\left(1 - \frac{40}{200}\right)^4$
= 81.92 litres
$\therefore$ amount of kerosene = = 200 − 81.92
= 118.08 litres

54. (5) $P = \frac{1000 \times 100}{4 \times 5} = 5000$ Rs.
Required C.I. $= 10000\left[\left(1 + \frac{5}{100}\right)^2 - 1\right]$
$= 10000 \times \frac{41}{400} = 1025$ Rs.

55. (1) Required Area of the shaded region
$= (16)^2 - \left[\frac{1}{2} \times 6 \times 8 + \frac{1}{2} \times 8 \times 6 + \frac{1}{2} \times 16 \times 10\right]$
= 256 − 128
= 128 cm²

56. (4) (A + B)' 4 days work $= \frac{4}{8} = \frac{1}{2}$
B's 2 days work $= \frac{2}{12} = \frac{1}{6}$
$\therefore$ Remaining work $= 1 - \left(\frac{1}{2} + \frac{1}{6}\right)$
$= \frac{1}{3}$
$\therefore \frac{\frac{1}{3}}{\frac{1}{12}} = 4$ days = days that C require

57. (3) Let the time taken by train A when it meet = t
Let the time taken by train B when it meet = (t – 1)
$\therefore$ 60 t + 75 (t − 1) = 330
T = 3 hrs
$\therefore$ both train will meet at 11 AM.

58. (2) Speed of current = 4 km/hr
Speed of rowing in still
Water = x km/hr
Distance (d) $= \frac{42}{2} = 21$ km
Then, $\frac{21}{x-4} = 2 + \frac{21}{x+4}$
$21\left(\frac{1}{x-4} - \frac{1}{x+4}\right) = 2$
$x^2 = 100$
x = 10 km/h

59. (3) Let amount = 100
$\Rightarrow$ for compound interest $\Rightarrow 100 \rightarrow 121$
Simple interest $\Rightarrow 100 \rightarrow 120$
$\Rightarrow 1 \rightarrow 28$
$\Rightarrow$ Principal = 2800
$\Rightarrow$ 2800 when, compounded half- yearly.

3403.41   3360
C.I.   S.I.

Difference = 43.41

60. (1) Profit ratio of A, B and C is $(1200 \times 12) : (x \times 9) : (y \times 6) = 2 : 3 : 5$
Taking first and second terms we get
$1200 \times 12 : 9x = 2 : 3$
$1200 \times 12 \times 3 = 9x \times 2$
$\therefore x = \frac{1200 \times 12 \times 3}{18} = 2400$

61. (4) Females in D3 (Cipla) $= 18000 \times \frac{18}{100} \times \frac{4}{9} = 1440$
Females in D3 (Surya) $= 17500 \times \frac{18}{100} \times \frac{7}{15} = 1470$
Total= 1440 + 1470 = 2910

62. (1) Males in D5 (Cipla) $= 18000 \times \frac{10}{100} \times \frac{4}{5} = 1440$
Males in D6 (Cipla) $= 18000 \times \frac{14}{100} \times \frac{7}{10} = 1764$
Average $= \frac{1440 + 1764}{2} = 1602$

63. (3) Females in D1 (Surya) $= \frac{24}{100} \times 17500 \times \frac{3}{7} = 1800$
Males in D3 (Cipla) $= \frac{18}{100} \times 18000 \times \frac{5}{9} = 1800$

64. (2) Females in D1 (Cipla) $= \frac{20}{100} \times 1800 \times \frac{5}{12} = 1500$
Female in D4 (Surya) $= \frac{16}{100} \times 17500 \times \frac{5}{14} = 1000$
Ratio = 1500 : 1000
= 3 : 2

65. (5) Females in D5 (Cipla) $= \frac{10}{100} \times 1800 \times \frac{1}{5} = 360$
Female in D5 (Surya) $= \frac{10}{100} \times 17500 \times \frac{3}{10} = 525$
Difference = 165

66. (2) A $\rightarrow$ Profit percent = 25%
B $\rightarrow$ Let CP = x,
SP = 1.25x
New CP = x + 500
Profit percentage $= \frac{1.25x - (x+500)}{x+500} \times 100 = \frac{100}{9}$
$x = 4000$
Profit = 1000 Rs.
C $\rightarrow$ C.P. = x
S.P. = $0.85(x + 1000)$
$\frac{0.85x + 850 - x}{x} \times 100 = 25 - \frac{75}{4}$
$x = 4000$
Profit = (5000 − 4000)
= 1000 Rs.
So A and either B or C are sufficient.

67. (5) As we don't know the time for which Rinku borrowed the amount, so the rate of interest can't be determined

68. (5) Let the speed of boat in still water and
speed of stream be x and y respectively.
St A — $\frac{45}{x+y} = 3 \Rightarrow x + y = 15$
St B — $y = \frac{1}{4}x \Rightarrow x = 4y$
St. C — $\frac{36}{x-y} = 4 \Rightarrow x - y = 9$
So, any two of the three statements
are sufficient to answer the question.

69. (4) St A — Lengths = $4x, 5x$
St B — ratio of speed = $1 : 2$
St C — speed of Ist train = 36 km/hr
From B and C
Speed of second train = $72\ km/hr$
As we don't know the directions of their
motion so relative speed can't be determined

70. (4) St. C $-\frac{\sqrt{3}}{4}a^2 = 16\sqrt{3}$, from here side
of the equilateral triangle and height
can be calculated.
St. B — Side of triangle $= \frac{48}{3\times2} = 8$
$h = \frac{\sqrt{3}}{2}a$
St. A — no conclusion
So using either B or C alone we can
find the height.

71. (4) Average annual growth rate
$= \frac{1}{2} \times [\frac{(4600 + 3800 + 1800) - (3820 + 2460 + 544)}{(3820 + 2460 + 544)}] \times 100$
$= \frac{1}{2} \times \frac{(10200 - 6824)}{6824} \times 100$
$= 24.73\%$

72. (1) Average amount spent in 1998
$= \frac{3820 + 2460 + 544}{3} = \frac{6824}{3} = 2274.66$
≈ 2275
Req. percentage $= \frac{3800 - 2275}{2275} \times 100$
$= \frac{1525}{2275} \times 100 = 67.03\%$

73. (2) Req. Percentage $= \frac{\frac{25}{100} \times 610}{(4120 + 2900 + 610)} \times 100$
$= \frac{15250}{7630} = 1.99\%$
$\approx 2\%$

74. (3) Difference
$= \frac{(2460 + 544 + 2900 + 610 + 3800 + 1800)}{3}$
$\sim \frac{(3820 + 4120 + 4600)}{3}$
$= \frac{12114 \sim 12540}{3}$
$= \frac{426}{3}$
$= 142$

75. (2)

Year	% share of print media
1998	55.97%
1999	53.99%
2000	45.09%

76. (3) Req. Ratio $= \frac{\frac{48}{360} \times 4800}{\frac{60}{100} \times \frac{48}{360} \times 4800 + \frac{30}{100} \times \frac{39}{360} \times 7200}$
$= \frac{640}{384 + 234}$
$= \frac{640}{618}$
$= \frac{320}{309}$

77. (4) Req. Percentage $= \frac{\frac{196}{360} \times 7200}{\frac{246}{360} \times 14400} \times 100 = 39.83\%$

78. (1) Expense on education
$= \frac{48}{360} \times 4800 + \frac{70}{360} \times 7200$
$= 2040$
Expense on rent $= \frac{90}{360} \times 4800 + \frac{70}{360} \times 7700$
$= 2600$
Req. percentage $= \frac{(2600 - 2040)}{2600} \times 100$
$= 21.53\%$

79. (5) Req. ratio $= \frac{\frac{18}{360} \times 4800}{\frac{39}{360} \times 7200}$
$= \frac{4}{13}$
(Note: Doubled expenses don't alter the ratio)

80. (1)

Item	Difference	
Clothing	$\frac{56}{360} \times 7200 - \frac{60}{360} \times 4800$	= 320
Rent	1400 – 1200	= 200
Food	2200 – 1280	= 920
Misc.	780 – 640	= 140
Light	300 – 240	= 60
Education	1400 – 640	= 760

81. (3) $6 \times 2 = 12$, $12 \times 3 = 36$, $36 \times 4 = 144$, $144 \times 5 = 720 \neq 722$

82. (1) $21^3 = 9261$, $19^3 = 6859$........., $11^3 = 1331 \neq 1321$

83. (4) All are prime numbers except 57

84. (1) Three are two series
8, 16, 32, 64, & 12, 24, 48, 96, $\neq 98$

85. (4) $2 \times 7 - 1 = 13, 13 \times 6 - 2 = 76, 76 \times 5 - 3 = 377, 377 \times 4 - 4 = 1504 \neq 1506$

86. (3) Required Answer $= \frac{35}{100}(30 + 15 + 15)$
$= \frac{35 \times 60}{100} = 21 \text{lakh}$

87. (1) It can be clearly seen from the graph that maximum variation in production in production is of aircel sim cards=(40% of 44lakh-30% of 35 lakh)=7.1 lakh

88. (1) Required difference $= \frac{44 \times 20}{100} - \frac{35 \times 15}{100}$
$= \frac{880 - 525}{100}$
$= \frac{355}{100}$lakh
$= 355000$

89. (2) Required production $= \frac{44 \times 30}{100}$ lakh $= 1320000$

90. (3) Required No. $= 35 \times \frac{10}{100} \times \frac{15}{100} + 44 \times \frac{10}{100} \times \frac{15}{100}$
$= \frac{150}{10000} \times 79$
$= 1.1850$ lakh
$= 118500$

91. (4) Ratio of investments of A, B and C
$= (\frac{7}{2} \times 4 + \frac{105}{20} \times 8) : \frac{4 \times 12}{3} : \frac{6 \times 12}{5}$
$\Rightarrow 56 : 16 : 14.4$. Therefore, B' share
$= \frac{16}{86.4} \times 21600 = Rs. 4,000.$

92. (3) Three vowels can be placed in
3 odd places in $^3c_3 \times 3!$
$= 6$ ways
Total ways $= 6 \times 3! = 36$

93. (4) Taking 3 particular persons as single entity,
we have $12 - 3 + 1 = 10$ persons to be seated.
No. of ways of seating these 10 persons
$= (10 - 1)! \times 3! = 9! \times 3!$
Total no. of ways of seating 12
persons $= (12 - 1)! = 11!$
Required probability $= \frac{9! \times 3!}{11!} = \frac{3 \times 2}{11 \times 10} = \frac{3}{55}$

94. (1) Let no. of wickets $= x$
Total runs given till last match $= 12.4 \times x$
$\frac{12.4x + 26}{x + 5} = 12$, $x = 85$

95. (2)

4 : 3 (9%, 10%, $9\frac{3}{7}\%$)

2 : $\frac{4}{7}$ ($9\frac{3}{7}\%$, 12%, 10%)

7 : 2
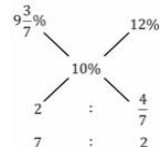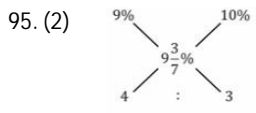
So the ratio of all types of pen $= 4 : 3 : 2$
No. of pens $= 200, 150, 100$

96. (2) $42.8 \times 13.5 \times 16.2 \times ? = 2340.09$

$\therefore ? = \frac{2340.09}{42.8 \times 13.5 \times 16.2} = 0.25$

97. (1) $(3.7)^{-3} \times (13.69)^{-2} \times \frac{1}{50.653} \div (13.69)^{-5} = (3.7)^?$

Or, $(3.7)^? = (3.7)^{-3} \times (3.7)^{-2 \times 2} \times (3.7)^{-3} \times (3.7)^{10}$

$= (3.7)^{-3-4-3+10} = (3.7)^0$

$\therefore ? = 0$

98. (3) $\frac{27}{17} \times 2295 \div 9 - ? = \sqrt{729}$

Or, $? = \frac{27}{17} \times 2295 \div 9 - 27$

$= \frac{27 \times 135}{9} - 27$

$= 27 \times 15 - 27 = 405 - 27 = 378$

99. (1) $486 \div ? \times 7392 \div 66 = 1008$

Or, $\frac{486}{?} \times \frac{7392}{66} = 1008$

$\therefore ? = \frac{486 \times 7392}{66 \times 1008} = 54$

100. (3) 17.8% of $? = 427.2 \times 8.4\%$ of 135

Or, $\frac{17.8 \times ?}{100} = \frac{427.2 \times 8.4 \times 135}{100}$

$\therefore ? = \frac{427.2 \times 8.4 \times 135}{17.8} = 27216$

101. (4) Option (1) is incorrect as they just used the concept formulated by Lorin. Option (2) is incorrect as they were used first in 1950s. Option (3) is incorrect as it is happened in 1947. Only option (4) is true.

102. (2) Only option (2) is correct since paragraph tries to answer the question 'How much bigger can airplanes get?'

103. (1) Option (1) is the correct choice. Although each of the other options is mentioned specifically in the context of the V-22, the question is specific about the difference between the V-22 and a standard plane.

104. (3) The 3rd paragraph clearly mentions the cause for the non use of radars a decade from now.

105. (3) It is obviously the correct choice and it will be more clear by interpreting the final sentence of the passage correctly.

106. (1) Imperative means of vital importance; crucial hence exigent is the word most similar in meaning.

107. (3) Stealthy means behaving or done in a cautious and surreptitious manner, so as not to be seen or heard hence surreptitious is the word most similar in meaning.

108. (2) Propulsion means the action of driving or pushing forwards hence impediment is the word most opposite in meaning.

109. (2) Inferior means lower in rank, status, or quality hence Maverick is the word most opposite in meaning.

110. (5) Propellant means drive or push something forwards hence abridge is the word most opposite in meaning.

111. (4)

112. (5) There is no correction required.

113. (4) The main verb is 'strike' and its past participle form is 'struck' which should be used, between option (2) and (4), option (4) is correct but option (2) is incorrect as it has an additional preposition 'for'.

114. (2) Replace 'have' with 'had' as the given sentence is in past tense.

115. (3)

116-120. The correct sequence is DEAFCB

116. (4)   117. (5)

118. (2)   119. (2)   120. (4)

121. (1) Substitute 'their' for 'its' because 'officers' are plural.

122. (5) No error.

123. (4) Substitute 'blocked' for 'had block'

124. (2) Delete 'that'.

125. (5) There is no error in the statement.

126. (1) use 'women' in place of 'woman'.

127. (4) replace 'waiting' with 'left'.

128. (4) Replace 'under' with 'within'

129. (2) Replace 'mine' with 'mining'

130. (2) Change 'respectively' into 'respectfully'.

131. (5) Relying means to depend on with full trust or confidence.

132. (3) 'opportunities unemployable' fits the blank perfectly.

133. (2) Provoked means to stimulate or give rise to (a reaction or emotion, typically a strong or unwelcome one) in someone.

134. (4)

135. (1)

136. (4) All are socialists, though Robespierre has been mentioned as an example of a person who till now was thought to be a typical instance of attributes needed for being a revolutionary socialist, does come up to them.

137. (1) Refer to the line from paragraph 2...,"Whatever may be the difficulties of the first of these two forms of socialism, the second must evidently involve the same difficulties and many more" which explains that option (1) is the right answer choice.

138. (3) The answer to this question can be found in paragraph 1 of the passage. It explains that the first believe in gradual change while the others believe in revolutionary change. Option (3) is the right choice.

139. (3) Option (3) does not find a mention in the passage.

140. (2) It is directly given in the passage that the aim of revolutionary socialism is to take over everything and then things in one go. This makes option (2) the correct answer.

141. (1) The author does not exhibit sympathies for any one side in particular. He adopts a descriptive approach in the passage

142. (1) Subversion means overthrowing something, like a government or law hence fealty is the word most opposite in meaning.

143. (1) Serene means calm, peaceful, and untroubled; tranquil hence perturbed is the word most opposite in meaning.

144. (3) Avow means 'To declare or affirm solemnly and formally as true'. Proclaim means "Declare formally; declare someone to be something; of titles'.

145. (4) Misery means a state or feeling of great physical or mental distress or discomfort hence forlorn is the word most similar in meaning.

146. (2) Use 'you return from' as we never use back after return.

147. (3) Auxiliary verb is used before subject in the sentences starting from No sooner, hardly, scarcely, rarely, seldom.

148. (1) we use Be + v3 in passive voice hence option (1) is the correct answer.

149. (2)

150. (5) remember with 'hesitate' we use 'to + v1'.