

ESIC EXAM

MODEL PRACTICE SET

ESIC UDC & MULTI-TASKING STAFF EXAM

[Solved Paper of SSC (10+2) Level Data Entry Operator & LDC Exam, 04.12.2011 (North Zone : Second Sitting)]

PART-I GENERAL INTELLIGENCE

Directions (1-9) : In each of the following questions, select the related word / letters / number from the given alternatives.

1. Life : Death :: Hope : ?
(1) Weep (2) Pain
(3) Despair (4) Sadness
2. Christian : Muslim :: ? : Quran
(1) Geeta (2) Ramayan
(3) Angel (4) Bible
3. Large : Enormous :: ?
(1) Cat : Tiger
(2) Warmth : Frost
(3) Plump : Fat
(4) Royal : Regale
4. BC : DI :: DE : ?
(1) FY (2) FP
(3) EI (4) RU
5. ACE : KIG :: MOQ : ?
(1) WUS (2) WVU
(3) WVT (4) WUT
6. DCEF : WXVU :: KJLM : ?
(1) QPRS (2) STRQ
(3) PQNO (4) NMKL
7. 3 : 27 :: 7 : ?
(1) 21 (2) 42
(3) 147 (4) 343
8. 9 : 28 :: 56 : ?
(1) 3 (2) 18
(3) 112 (4) 169
9. 12 : 35 :: 16 : ?
(1) 78 (2) 32
(3) 55 (4) 63

Directions (10-18) : In each of the following questions, select the one which is different from the other three responses.

10. (1) River (2) Ocean
(3) Lake (4) Rain
11. (1) King (2) Queen
(3) Royal (4) Prince
12. (1) Mango (2) Apple
(3) Orange (4) Guava

13. (1) M (2) N
(3) O (4) P
14. (1) GLOV (2) CFKR
(3) ILQX (4) ADIP
15. (1) GOD (2) RAT
(3) WAR (4) PAPER
16. (1) 363 (2) 481
(3) 1331 (4) 5462
17. (1) 8 - 64 (2) 6 - 36
(3) 9 - 81 (4) 7 - 50
18. (1) 121 - 196
(2) 144 - 225
(3) 36 - 83
(4) 16 - 49

19. Amongst the following words, which word appears second in order in the English dictionary?

- (1) Complaint
- (2) Complication
- (3) Complement
- (4) Compose

Directions (20-21) : In each of the following questions, which one of the given responses would be a meaningful order of the following words in ascending order?

20. 1. Line 2. Angle
3. Square 4. Triangle
(1) 2, 1, 4, 3 (2) 3, 4, 1, 2
(3) 4, 2, 1, 3 (4) 1, 2, 4, 3
21. 1. Childhood 2. Adulthood
3. Infancy 4. Adolescence
5. Babyhood
(1) 4, 1, 3, 2, 5 (2) 3, 5, 1, 4, 2
(3) 2, 5, 1, 4, 3 (4) 5, 4, 2, 3, 1

22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

- L _ NOO _ ML _ MNO _ NML
(1) MNLO (2) ONML
(3) NLMO (4) LOMN

Directions (23-26) : In each of the following questions choose the correct alternative from the given ones that will complete the series.

23. AD, EH, IL, 2, QT
(1) LM (2) MN
(3) MP (4) OM
24. ABCD, IJKL, QRST, 2
(1) YZAB (2) ABYZ
(3) BAZY (4) YAZB
25. 2, 6, 14, 26, 2, 62
(1) 52 (2) 54
(3) 44 (4) 42
26. 6, 12, 21, 33, 2
(1) 45 (2) 48
(3) 40 (4) 46
27. Find the wrong number in the given series.
13, 24, 29, 39, 44, 54, 61, 69
(1) 61 (2) 13
(3) 44 (4) 24
28. P and Q are brothers. R and S are sisters. P's son is S's brother. How is Q related to R?
(1) Uncle (2) Brother
(3) Father (4) Grandfather
29. There are five friends - Satish, Kishore, Mohan, Anil and Rajesh. Mohan is the tallest. Satish is shorter than Kishore but taller than Rajesh. Anil is little shorter than Kishore but little taller than Satish. Who is taller than Rajesh but shorter than Anil?
(1) Anil (2) Kishore
(3) Rajesh (4) Satish
30. From the given alternatives select the word which cannot be formed using the letters of the given word.
COLLABORATION
(1) ACTION (2) BILL
(3) BORN (4) CRITERION
31. A group of alphabets are given with each being assigned a number. These have to be unscrambled into a meaningful word and correct order of letters may be indicated from the given responses.

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

E F N R A C
1 2 3 4 5 6

(1) 136452 (2) 245361
(3) 415623 (4) 645312

32. If TIMBER is written is BERMIT in a certain code, how would BANTER be written in that code ?

(1) RETNAB (2) TERNAB
(3) TENBAR (4) TABNER

33. If UNIVERSITY is 1273948756, how can TRUSTY be written in that code ?

(1) 542856 (2) 531856
(3) 541856 (4) 541956

34. Which interchange of signs will make the following equation correct ?

$$35 + 7 \times 5 + 5 - 6 = 24$$

(1) + and - (2) + and \times
(3) + and + (4) - and +

35. Select the correct combination of mathematical signs to replace \star signs and to balance the given equation.

$$8 \star 5 \star 2 \star 72 \star 4$$

(1) = \times + (2) \times = + +
(3) \times = + + (4) + \times = +

36. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.

$$3 \times 8 \times 2 = 832,$$

$$6 \times 4 \times 1 = 461,$$

$$8 \times 6 \times 1 = ?$$

(1) 238 (2) 816
(3) 146 (4) 681

Directions (37-38) : In each of the following questions, select the missing number from the given responses.

37.

27	9	3
4	16	64
512	?	8

(1) 64 (2) 2
(3) 16 (4) 8

38.

5	3	7	1
7	5	9	3
4	4	4	4
3	2	?	1

(1) 6 (2) 5
(3) 4 (4) 2

39. 'A' starts walking towards North, turns left, again turns left, turns right, again turns

right, once again turns left. In which direction is 'A' walking now ?

(1) East (2) South
(3) West (4) South-East

40. Ram walked 4 km West of his house and then turned to South covering 8 km. Finally he moves 6 km towards East and then again 2 km West. How far is he from his initial position ?

(1) 4 km (2) 8 km
(3) 10 km (4) 12 km

41. A, B, C, D and E are standing in a line facing North. E is standing 40 metres left to B. A is standing 20 metres left to C. D is standing 20 metres right to E and 50 metres right to C. What is the distance between A and D ?

(1) 50 metres (2) 60 metres
(3) 70 metres (4) 80 metres

42. A solid cube of 4 inches has been painted red, green and black on pairs of opposite faces. It has been cut into one inch cubes. How many cubes have only three faces painted ?

(1) 4 (2) 8
(3) 12 (4) 16

43. Two statements are given followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements :

1. AIDS is a killer disease.
2. It is easy to prevent AIDS than to treat it.

Conclusions :

- I. AIDS prevention is very expensive.
II. People will not cooperate for AIDS prevention.
(1) Only conclusion I follows
(2) Only conclusion II follows
(3) Neither conclusion I nor II follows
(4) Both conclusions I and II follow

44. Two statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements :

1. All pens are pencils.
2. No pencil is monkey.

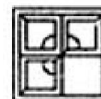
Conclusions :

- I. No pen is monkey.
II. Some pens are monkeys.
III. All monkeys are pens.
IV. Some monkeys are pens.

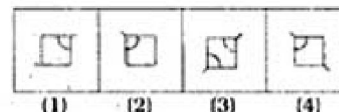
- (1) Either conclusion II or III follows
(2) Either conclusion II or IV follows
(3) Only conclusion I follows
(4) All conclusions follows

45. Which answer figure will complete the pattern in the question figure ?

Question Figure :



Answer figures :

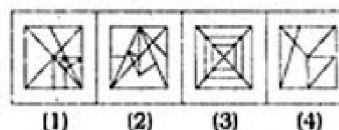


46. Select the answer figure in which the question figure is hidden/embedded.

Question Figure :



Answer Figures :



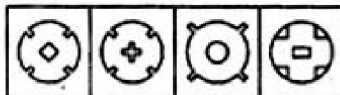
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47. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened ?

Question Figure :



Answer Figures :



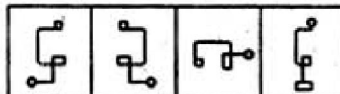
(1) (2) (3) (4)

48. Which of the answer figures is exactly the mirror image of the question figure, when the mirror is held on the line PQ?

Question figure :

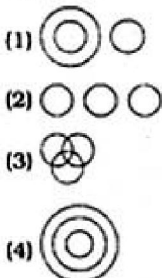


Answer figures :



(1) (2) (3) (4)

49. Which one of the following diagrams best depicts the relationship among Pigeons, Birds and Dogs.



(1) (2) (3) (4)

50. A word is represented by only one set of numbers as given in anyone of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given

below. The columns and rows of matrix I are numbered from 0 to 4 and that of matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., 'F' can be represented by 01, 13, 32, etc. and 'M' can be represented by 56, 68, 87, etc. Identify the set for the word NIFE.

MATRIX I

	0	1	2	3	4
0	E	F	G	H	I
1	H	I	E	F	G
2	F	G	H	I	E
3	I	E	F	G	H
4	G	H	I	E	F

MATRIX II

	5	6	7	8	9
5	L	M	N	O	P
6	O	P	L	M	N
7	M	N	O	P	L
8	P	L	M	N	O
9	N	O	P	L	M

- (1) 95, 30, 32, 43
(2) 95, 30, 31, 43
(3) 57, 42, 31, 43
(4) 57, 41, 32, 43

ENGLISH LANGUAGE

Directions (51 - 55) : In the following questions, some parts of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If there is no error, then the answer is (4) i.e. No error.

51. Neither of these two documents (1)/ support your claim (2)/ on the property. (3)/ No error (4)
52. Get this book (1)/ be published (2)/ in time. (3)/ No error. (4)
53. He (1)/ is junior than (2)/ all his friends. (3)/ No error (4)
54. Had you (1)/ worked hard (2)/ you will have passed. (3)/ No error (4)
55. He works hardly (1)/ to make (2)/ both ends meet. (3)/ No error (4)

Directions (56 - 60) : In the following questions, sentences are given with blanks to be filled in with an appropriate word (s). Four alternatives are suggested for each question. Choose the correct alternative out of the four as your answer.

56. Have you got any idea as to what has happened to Akila ? I haven't seen her ____.

(1) lately (2) later on
(3) late (4) later

57. I ____ hard to establish the validity of the theory from morning.

(1) have been trying
(2) had tried
(3) tried
(4) am trying

58. ____ of defence personnel would be given transfers to their place of choice.

(1) freinds (2) wives
(3) husbands (4) spouses

59. Sachin was standing ____ me.

(1) aside (2) next
(3) beside (4) besides

60. My sister and ____ are pleased to accept your invitation.

(1) I (2) me
(3) myself (4) I myself

Directions (61-65) : In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

61. Deny

(1) regain (2) refuse
(3) repair (4) reduce

62. Abuse

(1) use (2) praise
(3) scorn (4) raise

63. Docile

(1) submissive (2) stubborn
(3) strong (4) changeable

64. Considerate

(1) agreeable (2) kind
(3) like-minded
(4) thoughtful

65. Nurture

(1) to encourage
(2) to grow (3) to see
(4) to maintain

Directions (66-70) : In the following questions, choose the word opposite in meaning to the given word.

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

- 66. Concur**
 (1) disagree (2) disappear
 (3) disarrange (4) discourage

- 67. Veneration**
 (1) fear (2) reverence
 (3) remorse (4) disrespect

- 68. Insolent**
 (1) ignorant (2) proud
 (3) laudable (4) humble

- 69. Urban**
 (1) rustic (2) rural
 (3) civil (4) foreign

- 70. Incredible**
 (1) possible (2) believable
 (3) enjoyable (4) imaginary

Directions (71-75) : In the following questions, four alternatives are given, for the idiom/phrase. Choose the alternative which best expresses the meaning of the idiom/phrase.

- 71. To bring to light**
 (1) to reveal
 (2) to conceal
 (3) to provide luminescence
 (4) to appeal

- 72. To hit the jackpot**
 (1) to gamble
 (2) to get an unexpected victory
 (3) to be wealthy
 (4) to make money quickly

- 73. To burn the candle at both ends**
 (1) to spend cautiously
 (2) to be stingy
 (3) to be extravagant
 (4) to survive difficulty

- 74. Status quo**
 (1) unchanged position
 (2) excellent place
 (3) unbreakable statue
 (4) long queue

- 75. By fair means or foul**
 (1) without using common sense
 (2) without difficulty
 (3) in any way honest or dishonest
 (4) having been instigated

Directions (76-80) : In the following questions, a part of the sentence is printed in **bold**. Below are given alternatives to the **bold** part at (1), (2) and (3) which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (4).

- 76. Rakesh didn't knew** my address.

- (1) didn't known
 (2) didn't have
 (3) didn't know
 (4) No improvement

- 77. It was quite clear that the runner could be able** to improve upon his own record.

- (1) will be able
 (2) should be able
 (3) would be able
 (4) No improvement

- 78. This work of art is worthy to** praise.

- (1) for (2) of
 (3) about
 (4) No improvement

- 79. To alleviate** the pain of losing his only son, he took up meditation.

- (1) lessen (2) minimise
 (3) lesson
 (4) No improvement

- 80. The Prime Minister established** a commission to look after the plight of the widows.

- (1) formed (2) created
 (3) set up
 (4) No improvement

Directions (81-85) : In the following questions, out of the four alternatives, choose the one which can be substituted for the given words / sentence.

- 81. Person with whom one works**

- (1) contemporary
 (2) companion
 (3) colleague
 (4) partner

- 82. Honesty of character**

- (1) integrity (2) rectitude
 (3) honour (4) dignity

- 83. The act or practice of spying**

- (1) strategy
 (2) espionage
 (3) diplomacy
 (4) enumeration

- 84. Expressions of sympathy**

- (1) congratulation
 (2) condolence
 (3) compliment
 (4) condemnation

- 85. An instrument used to record sound**

- (1) gramophone
 (2) hydrophone

- (3) phonograph
 (4) megaphone

Directions (86-90) : In the following questions, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

- 86.** (1) Gaurd (2) Gard
 (3) Guard (4) Garad

- 87.** (1) Coreigible (2) Coraegible
 (3) Correigible (4) Corrigible

- 88.** (1) Secretariel (2) Secreterel
 (3) Secreterial (4) Secretarial

- 89.** (1) Aquisition
 (2) Acquization
 (3) Acquisition
 (4) Acquisision

- 90.** (1) Vaccation (2) Vocation
 (3) Vecation (4) Vecasion

Directions (91-100) : In the following passage, some of the words have been left out. First read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given.

The word 'ticket' is (91) to every language in India. (92) those who are actively (93) in the political process (94) a ticket as permission to (95) an election as candidate (96) a political party. The (97), if elected, sits in the (98) assembly, or any other (99) for which he/she contests, as (100) of that party.

- 91.** (1) general (2) peculiar
 (3) common (4) familiar

- 92.** (1) So (2) But
 (3) And (4) Since

- 93.** (1) involved (2) seen
 (3) leading (4) attracted

- 94.** (1) look (2) interpret
 (3) interfere (4) interrupt

- 95.** (1) stand in (2) campaign
 (3) vote (4) contest

- 96.** (1) inside (2) of
 (3) for (4) to

- 97.** (1) leader (2) party
 (3) candidate (4) ticket

- 98.** (1) legislative (2) legal
 (3) political (4) electoral

- 99.** (1) body (2) election
 (3) party (4) institute

- 100.** (1) candidate (2) participant
 (3) representative
 (4) interpreter

QUANTITATIVE APTITUDE

101. A number consists of two digits and the digit in the ten's place exceeds that in the unit's place by 5. If 5 times the sum of the digits be subtracted from the number, the digits of the number are reversed. Then the sum of digits of the number is

- (1) 11 (2) 7
(3) 9 (4) 13

102. The greatest among the numbers $\sqrt[3]{3}$, $\sqrt[3]{4}$, $\sqrt[10]{12}$, 1 is

- (1) 1 (2) $\sqrt[3]{4}$
(3) $\sqrt[3]{3}$ (4) $\sqrt[10]{12}$

103. A fraction becomes $\frac{1}{6}$ when 4 is subtracted from its numerator and 1 is added to its denominator. If 2 and 1 are respectively added to its numerator and the denominator, it

becomes $\frac{1}{3}$. Then, the LCM of the numerator and denominator of the said fraction, must be

- (1) 14 (2) 350
(3) 5 (4) 70

104. $(4^{61} + 4^{62} + 4^{63})$ is divisible by

- (1) 3 (2) 11
(3) 13 (4) 17

105. The ratio of two numbers is 4 : 5 and their H.C.F. is 8. Then their L.C.M. is

- (1) 130 (2) 140
(3) 150 (4) 160

106. Each interior angle of a regular polygon is 144° . The number of sides of the polygon is

- (1) 8 (2) 9
(3) 10 (4) 11

107. There is a pyramid on a base which is a regular hexagon of side $2a$ cm. If every slant edge

of this pyramid is of length $\frac{5a}{2}$ cm, then the volume of this pyramid is

- (1) $3a^3 \text{ cm}^3$ (2) $3\sqrt{2} a^3 \text{ cm}^3$
(3) $3\sqrt{3} a^3 \text{ cm}^3$ (4) $6a^3 \text{ cm}^3$

108. Two solid right cones of equal heights and of radii r_1 and r_2 are melted and made to form a solid sphere of radius R . Then the height of the cone is

- (1) $\frac{4R^2}{r_1^2 + r_2^2}$ (2) $\frac{4R}{r_1 + r_2}$
(3) $\frac{4R^3}{r_1^2 + r_2^2}$ (4) $\frac{R^2}{r_1^2 + r_2^2}$

109. The ratio of radii of two cones is 3 : 4 and the ratio of their heights is 4 : 3. Then the ratio of their volumes will be

- (1) 3 : 4 (2) 4 : 3
(3) 9 : 16 (4) 16 : 9

110. The ratio of the areas of the circumcircle and the incircle of an equilateral triangle is

- (1) 2 : 1 (2) 4 : 1
(3) 8 : 1 (4) 3 : 2

111. The area of the four walls of a room is 660 m^2 and its length is twice its breadth. If the height of the room is 11 m, then area of its floor (in m^2) is

- (1) 120 (2) 150
(3) 200 (4) 330

112. A cylindrical rod of iron whose height is eight times its radius is melted and cast into spherical balls each of half the radius of the cylinder. The number of such spherical balls is

- (1) 12 (2) 16
(3) 24 (4) 48

113. A and B can do a piece of work in 10 days. B and C can do it in 12 days. A and C can do it in 15 days. How long will A take to do it alone?

- (1) 24 days (2) 20 days
(3) 40 days (4) 30 days

114. A does half as much work as B in one-third of the time taken by B. If together they take 10 days to complete a work, then the time taken by B alone to do it would have been

- (1) 30 days (2) 25 days
(3) 6 days (4) 12 days

115. A single discount equivalent to discount series 20%, 20% and 10% is

- (1) 50% (2) 48.4%
(3) 42.4% (4) 40.4%

116. If a shopkeeper marks the price of goods 50% more than their cost price and allows a discount of 40%, what is his gain or loss percent?

- (1) Gain of 10%
(2) Loss of 10%
(3) Gain of 20%
(4) Loss of 20%

117. To get the ratio $p : q$ (for $p \neq q$), one has to add to each term of the ratio $x : y$, the number

- (1) $\frac{px + qy}{p - q}$ (2) $\frac{qx - py}{p - q}$
(3) $\frac{px - qy}{p - q}$ (4) $\frac{py - qx}{p - q}$

118. Two containers have acid and water mixed respectively in the ratio 3 : 1 and 5 : 3. To get a new mixture with ratio of acid to water as 2 : 1, the two types have to be mixed in the ratio

- (1) 1 : 2 (2) 2 : 1
(3) 2 : 3 (4) 3 : 2

119. a, b, c, d, e, f, g are consecutive even numbers. j, k, l, m, n are consecutive odd numbers. The average of all the numbers is

- (1) $3\left(\frac{a+n}{2}\right)$
(2) $\left(\frac{l+d}{2}\right)$
(3) $\frac{a+b+m+n}{4}$
(4) $\frac{j+c+n+g}{4}$

120. The average of three numbers is 40. The first number is twice the second and the second one is thrice the third number. The difference between the largest and the smallest numbers is

- (1) 30 (2) 36
(3) 46 (4) 60

121. By selling 12 oranges for ₹ 60, a man loses 25%. The number of oranges he has to sell for ₹ 100, so as to gain 25% is

- (1) 10 (2) 11
(3) 12 (4) 15

122. The cost price of 400 lemons is equal to the selling price of 320 lemons. Then the profit percent is

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

- (1) 15% (2) 20%
(3) 25% (4) 40%
123. A man spends 75% of his income. His income increased by 20% and he increased his expenditure by 15%. His savings will then be increased by
- (1) 33% (2) $33\frac{1}{3}\%$
(3) 35% (4) 40%
124. 25 litres of salt solution contains 6% salt. How many litres of water must be added so as to get a resultant solution containing 5% salt?
- (1) 4 litres (2) 5 litres
(3) 6 litres (4) 8 litres
125. The current of a stream runs at the rate of 4 km an hour. A boat goes 6 km and comes back to the starting point in 2 hours. The speed of the boat in still water is
- (1) 6 km/hour (2) 8 km/hour
(3) 7.5 km/hour (4) 6.8 km/hour
126. On what sum of money will the difference between the simple interest and the compound interest for 2 years at 8% per annum be equal to ₹ 8?
- (1) ₹ 1200 (2) ₹ 1250
(3) ₹ 1300 (4) ₹ 1350
127. If $2x + \frac{1}{3x} = 5$, find the value of $\frac{5x}{6x^2 + 20x + 1}$
- (1) $\frac{1}{4}$ (2) $\frac{1}{6}$
(3) $\frac{1}{5}$ (4) $\frac{1}{7}$
128. If for two real constants a and b , the expression $ax^3 + 3x^2 - 8x + b$ is exactly divisible by $(x+2)$ and $(x-2)$, then
- (1) $a = 2, b = 12$
(2) $a = 12, b = 2$
(3) $a = 2, b = -12$
(4) $a = -2, b = 12$
129. If $x^2 - 3x + 1 = 0$, then the value of $x^3 + \frac{1}{x^3}$ is
- (1) 9 (2) 18
(3) 27 (4) 1
130. If $x^2 + y^2 + 2x + 1 = 0$, then the value of $x^{21} + y^{21}$ is
- (1) -1 (2) 0
(3) 1 (4) 2
131. If p, q, r are all real numbers, then $(p-q)^2 + (q-r)^2 + (r-p)^2$ is equal to
- (1) $(p-q)(q-r)(r-p)$
(2) $3(p-q)(q-r)(r-p)$
(3) 0
(4) 1
132. ABCD is a square. M is the mid-point of AB and N is the mid-point of BC. DM and AN are joined and they meet at O. Then which of the following is correct?
- (1) OA : OM = 1 : 2
(2) AN : MD
(3) $\angle ADM = \angle ANB$
(4) $\angle AMD = \angle BAN$
133. AB = 8 cm and CD = 6 cm are two parallel chords on the same side of the centre of a circle. The distance between them is 1 cm. The radius of the circle is
- (1) 5 cm (2) 4 cm
(3) 3 cm (4) 2 cm
134. The circumcentre of a triangle ABC is O. If $\angle BAC = 85^\circ$ and $\angle BCA = 75^\circ$, then the value of $\angle OAC$ is
- (1) 40° (2) 60°
(3) 70° (4) 90°
135. Two chords AB and CD of circle whose centre is O, meet at the point P and $\angle AOC = 50^\circ$, $\angle BOD = 40^\circ$. Then the value of $\angle BPD$ is
- (1) 60° (2) 40°
(3) 45° (4) 75°
136. A straight line parallel to the base BC of the triangle ABC intersects AB and AC at the points D and E respectively. If the area of the $\triangle ABE$ be 36 sq.cm, then the area of the $\triangle ACD$ is
- (1) 18 sq.cm (2) 36 sq.cm
(3) 18 cm (4) 36 cm
137. If $\tan \theta = 1$, then the value of $\frac{8 \sin \theta + 5 \cos \theta}{\sin^3 \theta - 2 \cos^3 \theta + 7 \cos \theta}$ is
- (1) 2 (2) $2\frac{1}{2}$
(3) 3 (4) $\frac{4}{5}$
138. If θ be a positive acute angle satisfying $\cos^2 \theta + \cos^4 \theta = 1$, then the value of $\tan^2 \theta + \tan^4 \theta$ is
- (1) $\frac{3}{2}$ (2) 1
(3) $\frac{1}{2}$ (4) 0
139. The value of $\tan 4^\circ \cdot \tan 43^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ$ is
- (1) 0 (2) 1
(3) $\sqrt{3}$ (4) $\frac{1}{\sqrt{3}}$
140. The distance between two pillars of length 16 metres and 9 metres is x metres. If two angles of elevation of their respective top from the bottom of the other are complementary to each other, then the value of x (in metres) is
- (1) 15 (2) 16
(3) 12 (4) 9
141. If $\tan \theta = \frac{4}{3}$, then the value of $\frac{3 \sin \theta + 2 \cos \theta}{3 \sin \theta - 2 \cos \theta}$ is
- (1) 0.5 (2) -0.5
(3) 3.0 (4) -3.0
- Directions (142-146) :** The following bar graph shows the production of fertilizers (in lakh tonnes) by a company, in six consecutive years. Study the graph and answer the questions.
-
- | Year | Production (in lakh tonnes) |
|------|-----------------------------|
| 1995 | 70 |
| 1996 | 80 |
| 1997 | 90 |
| 1998 | 80 |
| 1999 | 60 |
| 2000 | 75 |

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

142. The difference of the average production of fertilizers in the first three years and the average production in the last three years (in lakh tonnes) is

- (1) $2\frac{1}{3}$ (2) $8\frac{1}{3}$
(3) $4\frac{1}{6}$ (4) $3\frac{1}{3}$

143. The ratio of the total production of fertilizers in the years 1995, 1997 and 1999 to the total production in the remaining three years is

- (1) 44 : 45 (2) 48 : 43
(3) 44 : 47 (4) 46 : 45

144. The total production of fertilizers in the years 1998 and 2000 is $x\%$ of the total production in the years 1997 and 1999. Then x is equal to

- (1) $103\frac{1}{3}$ (2) $79\frac{7}{17}$
(3) $96\frac{24}{31}$ (4) $125\frac{25}{27}$

145. The year in which the production of fertilizers is nearest to the average production of all the six years, is

- (1) 1999 (2) 1998
(3) 1995 (4) 2000

146. Percentage increase in production of fertilizers for a year with respect to its previous year was maximum in the year

- (1) 1996 (2) 1997
(3) 1999 (4) 2000

Directions (147-150) : A survey of movie going habits of city dwellers from 5 cities A, B, C, D and E is given below. The first column gives the percentage of viewers in each city who watch less than two movies a week. The second column gives the total number of viewers who view two or more movies per week. Study the table and answer the questions.

City	I	II
A	60	2400
B	20	3000
C	85	2400
D	55	2700
E	75	8000

147. How many viewers in city C watch less than two movies a week?

- (1) 2040 (2) 13600
(3) 16000 (4) 3600

148. The city with the lowest number of movie watchers is

- (1) City E (2) City D
(3) City B (4) City C

149. The highest number of movie watchers in any given city (in the survey) is

- (1) 36000 (2) 32000
(3) 6000 (4) 16000

150. Which two cities have the same number of movie watchers?

- (1) C and E (2) C and D
(3) A and B (4) D and A

GENERAL AWARENESS

151. Elasticity of demand measures the responsiveness of the quantity demanded of a goods to a

- (1) change in the price of the goods
(2) change in the price of substitutes
(3) change in the price of the complements
(4) change in the price of joint products

152. Consumption function expresses the relationship between consumption and

- (1) savings (2) income
(3) investment (4) price

153. 'Mixed economy' refers to

- (1) the co-existence of heavy, small scale and cottage industries
(2) the promotion of agriculture as well as cottage industries
(3) the co-existence of rich as well as poor
(4) the co-existence of public as well as private sector

154. Which of the following is not a fixed cost?

- (1) Salaries of administrative staff
(2) Rent of factory building
(3) Property taxes
(4) Electricity charges

155. Which of the following would **not** constitute an economic activity in Economics?

- (1) A teacher teaching students in his college
(2) A teacher teaching students in a coaching institute
(3) A teacher teaching his own daughter at home
(4) A teacher teaching students under Sarva Shiksha Abhiyan Scheme

156. Zoro hour is at the discretion of

- (1) Prime Minister
(2) Speaker
(3) Opposition leader
(4) President

157. The Judges of High Court are administered oath of office by

- (1) The Chief Justice of High Court
(2) The President of India
(3) The Chief Justice of India
(4) Governor of the State

158. Which slogan was given by the French Revolution to the world?

- (1) Liberty, Authority, Equality
(2) Liberty, Equality, Fraternity
(3) Liberty, Law, Fraternity
(4) Tradition, Authority, Law

159. The President of India can issue a proclamation of National Emergency only on the written recommendation of

- (1) The Prime Minister
(2) The Cabinet consisting of only Cabinet Ministers of the Union
(3) The Council of Ministers of the Union
(4) Parliament

160. Parliament exercises control over public expenditure through

- (1) Advocate General
(2) Comptroller and Auditor General
(3) Commerce Minister
(4) Finance Minister

161. Who was the court poet of Harsha Vardhana?

- (1) Bhani (2) Ravi Kirti

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

- (3) Bana
(4) Vishnu Sharma
- 162.** The 'Poorna Swaraj' resolution was adopted in the annual session of the Indian National Congress held at
(1) Bombay (2) Lahore
(3) Calcutta (4) Madras
- 163.** In which of the following countries were / Buddha's idols disfigured and removed recently?
(1) Pakistan
(2) Turkey
(3) Afghanistan
(4) Iran
- 164.** "Go back to Vedas." This call given by
(1) Ramakrishna Paramahansa
(2) Vivekananda
(3) Jyotiba Phule
(4) Dayanand Saraswati
- 165.** Which of the following pairs is incorrect?
(1) Babar vs. Sangram Singh
(2) Sher Shah vs. Humayun
(3) Chengiz Khan vs. Alauddin Khilji
(4) Akbar vs. Hemu
- 166.** The natural gaps across the mountains which provide routes are called
(1) Peaks (2) Dunes
(3) Plateaus (4) Passes
- 167.** Jhumming is shifting agriculture practised in
(1) North-eastern India
(2) South-western India
(3) South-eastern India
(4) Northern India
- 168.** Frontal Rain is caused by
(1) Convection current
(2) Winds from sea
(3) Cyclonic activity
(4) Condensation of water evaporated from mountains
- 169.** The Palk Strait lies between,
(1) Bay of Bengal and Gulf of Mannar
(2) Andaman and Nicobar Islands
(3) Rann of Kutch and Gulf of Khambhat
(4) Lakshadweep and Maldives
- 170.** Match the following :
- | | | | | |
|-------------------|--|--|--|--|
| Rivers | | | | |
| a. Gomti | | | | |
| b. Brahmaputra | | | | |
| c. Godavari | | | | |
| d. Kaveri | | | | |
| Towns | | | | |
| 1. Guwahati | | | | |
| 2. Rajahmundry | | | | |
| 3. Tiruchirapalli | | | | |
| 4. Lucknow | | | | |
- | | | | | |
|-------|----------|----------|----------|----------|
| | a | b | c | d |
| (1) 3 | 4 | 2 | 1 | |
| (2) 2 | 1 | 3 | 4 | |
| (3) 4 | 1 | 2 | 3 | |
| (4) 4 | 2 | 1 | 3 | |
- 171.** The example of hermaphrodite animal in which cross fertilisation occurs is
(1) Hydra (2) Ascaris
(3) Earthworm (4) Silkworm
- 172.** Blubber is
(1) a milky secretion of rubber plant
(2) a layer of thick fat
(3) a device to trap insects by some aquatic
(4) fungal infection of rice plants
- 173.** The coding segment of DNA is called in
(1) Codon (2) Muton
(3) Intron (4) Exon
- 174.** Fat soluble vitamins are
(1) Tocopherol, Niacin, Cyanocobalamin
(2) Calciferol, Carotene, Tocopherol
(3) Ascorbic acid, Calciferol, Riboflavin
(4) Thiamine, Carotene, Biotin
- 175.** Silk is produced by
(1) Egg of a silkworm
(2) Pupa of silkworm
(3) Larva of silkworm
(4) Insect itself
- 176.** Which of the following is an egg laying mammal?
(1) Bat
(2) Leafy ant-eater
(3) Whale
(4) Spiny ant-eater
- 177.** A transformer works with
(1) alternating current only
(2) direct current only
(3) both AC and DC
(4) any signal
- 178.** In the Earth, the weight of a body is maximum at the
(1) North Pole
(2) South Pole
(3) Equator
(4) Surface
- 179.** The technique of collecting information about an object from a distance without making physical contact with it is
(1) Remote sensing
(2) Remote control
(3) Remote accessing
(4) Space shuttle
- 180.** The head mirror used by ENT doctors is
(1) Concave
(2) Convex
(3) Plane
(4) Plano-convex
- 181.** A _____ is a high-speed network that connect local networks in a city or town.
(1) LAN (2) MAN
(3) WAN (4) TAN
- 182.** PDA stands for
(1) Personal Digital Assistant
(2) Personal Development Agency
(3) Personal Data Authority
(4) Personal Data Array
- 183.** Which of the following statements are correct about chloroform?
1. Liquid fuel
2. Anaesthetic in nature
3. Produces phosgene
4. Fire extinguisher
(1) 1, 2 (2) 1, 3
(3) 2, 3 (4) 4, 1
- 184.** Which of the following is **not** a method of preparing oxygen?
(1) Electrolysis of water
(2) Fractional distillation of liquid air
(3) Decomposition of potassium permanganate
(4) Decomposition of manganese dioxide

MODEL PRACTICE SET : ESIC UDC & MULTI-TASKING STAFF EXAM

185. Which one of the following is not a characteristic feature of alloys ?

They are

- (1) Compounds
(2) Mixtures (3) Solutions
(4) Homogeneous systems

186. Permanent – hardness of water may be removed by addition of

- (1) Alum
(2) Sodium carbonate
(3) Lime
(4) Potassium Permanganate

187. Global warming is expected to result in

- (1) Increase in level of sea
(2) Change in crop pattern
(3) Change in coastline
(4) All of the above

188. Man can maintain an ecological balance in the biosphere by

- (1) deforestation
(2) developing new breeds of cultivated plants and domesticated animals
(3) using insecticides and pesticides
(4) understanding the delicate balance in the relative number of organisms

189. Smog is a combination of

- (1) air and water vapour
(2) water and smoke
(3) fire and water
(4) smoke and fog

190. Of the following, which one pollutes the air of a big city ?

- (1) Copper (2) Chromium
(3) Lead (4) Cadmium

191. Which state is famous for stepwells ?

- (1) Maharashtra
(2) Gujarat
(3) Orissa
(4) Manipur

192. First Indian Arctic Expedition was launched in the year

- (1) 2004 (2) 2005
(3) 2006 (4) 2007

193. The river on which the reservoir for Indira Gandhi Canal has been built is

- (1) Sutlej
(2) Ravi
(3) Lunj
(4) Jhelum

194. Bihu is a festival that is observed in

- (1) West Bengal
(2) Maharashtra
(3) Assam
(4) Tamil Nadu

195. Bharat Ratna is designed like the leaf of

- (1) Banyan tree
(2) Peepal tree
(3) Coconut tree
(4) Sandalwood tree

196. In which of the following States, is Child Sex Ratio as per the provisional results of the 2011 Census, the lowest?

- (1) Haryana
(2) Punjab
(3) Bihar
(4) Uttar Pradesh

197. Which team advanced to the Copa America Final 2011, without winning any of its five matches in open play ?

- (1) Brazil
(2) Paraguay
(3) Venezuela
(4) Peru

198. Which one of the following is in fact not a garden?

- (1) Hanging Gardens (Mumbai)
(2) Eden Gardens (Kolkata)
(3) Vrindavan Gardens (Mysore)
(4) Khusro Gardens (Lucknow)

199. The book 'The Audacity of Hope' has been written by

- (1) Nayantara Sehgal
(2) Aravind Adiga
(3) Vikram Seth
(4) Barack Obama

200. ISRO is the abbreviation for

- (1) Indian Scientific Research Organisation
(2) Indian Space Research Organisation
(3) International Space Research Organisation
(4) International Scientific Research Organisation

ANSWERS

1.(3)	2.(4)	3.(3)	4.(1)
5.(1)	6.(2)	7.(4)	8.(4)
9.(4)	10.(4)	11.(3)	12.(1)
13.(3)	14.(1)	15.(4)	16.(4)
17.(4)	18.(3)	19.(3)	20.(4)
21.(2)	22.(1)	23.(3)	24.(1)
25.(4)	26.(2)	27.(3)	28.(1)
29.(4)	30.(4)	31.(2)	32.(2)
33.(3)	34.(3)	35.(4)	36.(4)
37.(1)	38.(3)	39.(1)	40.(2)
41.(3)	42.(2)	43.(3)	44.(3)
45.(4)	46.(2)	47.(1)	48.(2)
49.(1)	50.(1)	51.(2)	52.(1)
53.(2)	54.(3)	55.(1)	56.(1)
57.(1)	58.(4)	59.(3)	60.(1)
61.(2)	62.(3)	63.(1)	64.(4)
65.(1)	66.(1)	67.(4)	68.(4)
69.(2)	70.(2)	71.(1)	72.(3)
73.(4)	74.(1)	75.(3)	76.(3)
77.(3)	78.(2)	79.(4)	80.(3)
81.(3)	82.(1)	83.(2)	84.(2)
85.(3)	86.(3)	87.(4)	88.(4)
89.(3)	90.(2)	91.(3)	92.(2)
93.(1)	94.(1)	95.(4)	96.(2)
97.(3)	98.(1)	99.(1)	100.(3)
101.(3)	102.(2)	103.(4)	104.(1)
105.(4)	106.(3)	107.(3)	108.(3)
109.(1)	110.(2)	111.(3)	112.(4)
113.(1)	114.(2)	115.(3)	116.(2)
117.(2)	118.(1)	119.(2)	120.(4)
121.(3)	122.(3)	123.(3)	124.(2)
125.(2)	126.(2)	127.(4)	128.(3)
129.(2)	130.(1)	131.(2)	132.(3)
133.(1)	134.(3)	135.(3)	136.(2)
137.(1)	138.(1)	139.(2)	140.(3)
141.(3)	142.(2)	143.(3)	144.(1)
145.(4)	146.(4)	147.(2)	148.(3)
149.(2)	150.(4)	151.(2)	152.(2)
153.(4)	154.(1)	155.(3)	156.(2)
157.(1)	158.(2)	159.(3)	160.(2)
161.(3)	162.(2)	163.(3)	164.(4)
165.(3)	166.(4)	167.(1)	168.(3)
169.(1)	170.(3)	171.(1)	172.(2)
173.(4)	174.(2)	175.(3)	176.(4)
177.(1)	178.(*)	179.(1)	180.(1)
181.(2)	182.(1)	183.(3)	184.(4)
185.(4)	186.(2)	187.(4)	188.(4)
189.(4)	190.(3)	191.(2)	192.(4)
193.(1)	194.(3)	195.(2)	196.(1)
197.(2)	198.(2)	199.(4)	200.(2)