NAME:

EXAM CENTRE. : $\qquad$

MARKS OBTAINED : $\qquad$

## REMARKS :

$\qquad$

## QUANTITATIVE APTITUDE

1. The difference between $75 \%$ of a number and $20 \%$ of the same number is 378.4 . What is $40 \%$ of that number?
(a) 275.2
(b) 274
(c) 267.2
(d) 266
(e) None of these
2. If the numerator of a fraction is increased by $200 \%$ and the denominator of the fraction is increased by $150 \%$. the resultant fraction is $\frac{9}{35}$. What is the original fraction?
(a) $\frac{3}{10}$
(b) $\frac{2}{15}$
(c) $\frac{3}{16}$
(d) $\frac{2}{7}$
(e) None of these
3. Manish invests ₹ 3,818 , which is $20 \%$ of his monthly income, in insurance policies. What is his monthly income?
(a) ₹19090
(b) ₹19900
(c) ₹19990
(d) ₹19009
(e) None of these
4. There are 1556 employees in an organization. Out of which $25 \%$ got transferred to different places. How many such employees got the transfer?
(a) 394
(b) 404
(c) 419
(d) 399
(e) None of these
5. In an examination Nisha scores a total of 555 marks out of 850 . What is her approximate percentage in the examination?
(a) 59
(b) 72
(c) 68
(d) 65
(e) 70
6. $10 \%$ of the inhabitants of a village having died of cholera, a panic set in, during which $25 \%$ of the remaining inhabitants left the village. The population is then reduced to 4050 . Find the number of original inhabitants.
(a) 5000
(b) 6000
(c) 7000
(d) 8000
(e) None of these
7. Chunilal invests $65 \%$ in machinery, $20 \%$ in raw material and still has ₹ 1,305 cash with him. Find his total investment.
(a) ₹ 6,500
(b) ₹ 7,225
(c) ₹ 8,500
(d) ₹ 8,227
(e) None of these
8. Shobha's Mathematics Test had 75 problem i.e., 10 arithmetic, 30 algebra and 35 geometry problems. Although she answered 70\% of the arithmetic, 40\% of the algebra and $60 \%$ of the geometry problems correctly. She did not pass the test because she got less than $60 \%$ of the problems right. How many more questions she would have needed to answer correctly to earn a $60 \%$ passing grade?
(a) 4
(b) 5
(c) 6
(d) 7
(e) None of these
9. Lucknow bound Shatabdi Express has a capacity of 500 seats of which $10 \%$ are in the Executive class and the rest chair cars. During one journey, the train was booked to $85 \%$ of its capacity. If Executive class was booked to $96 \%$ of its capacity, then how many chair car seats were empty during that journey?
(a) 78
(b) 73
(c) 72
(d) None of these
(e) None of these
10. The owner of an electronics shop charges his customer $22 \%$ more than the cost price. If a customer paid ₹ 10,980 for a DVD player, then what was the cost price of the DVD player?
(a) ₹ 8000
(b) ₹ 8800
(c) ₹ 9500
(d) ₹ 9200
(e) None of these
11. The owner of a stationery shop charges his customers $28 \%$ more than the cost price. If a customer paid ₹ 4544 for school books, then what was the cost price of the school books ?
(a) ₹3550
(b) ₹ 3500
(c) ₹ 3450
(d) ₹3400
(e) None of these
12. A firm of readymade garments makes both men's and women's shirts. Its average profit is $6 \%$ of the sales. Its profit in men's shirts average $8 \%$ of the sales and women's shirts comprise $60 \%$ of the output. The average profit per sale rupee in women shirts is
(a) 0.0466
(b) 0.0666
(c) 0.0166
(d) 0.0366
(e) None of these
13. The list price of a watch is $₹ 160$. A retailer bought the same watch ₹ 122.40 . He got two successive discounts one at $10 \%$ and the other at a rate which was not legible. What is the second discount rate?
(a) $12 \%$
(b) $14 \%$
(c) $15 \%$
(d) $18 \%$
(e) None of these
14. A man sold his book for ₹ 891 , thereby gaining $\frac{1}{10}$ of its cost price. Find his cost price.
(a) ₹ 850
(b) ₹ 810
(c) ₹ 851
(d) ₹ 840
(e) None of these
15. A shopkeeper purchases 10 kg of rice at $₹ 600$ and sells at a loss as much the selling price of 2 kg of rice. Find the sale rate of rice/ kg.
(a) ₹ 60 per kg
(b) ₹ 50 per kg
(c) ₹ 80 per kg
(d) ₹ 70 per kg
16. Arunima invests an amount of ₹ $10,250 @ 4 \%$ p.a. to obtain a total amount of ₹ 12,710 on simple interest after a certain period. For how many year did she invest the amount to obtain the total sum?
(a) 6 years
(b) 8 years
(c) 5years
(d) 4 years
(e) None of these
17. Sudhanshu invested ₹ 15,000 at interest @ $10 \%$ p.a for one year. If the interest is compounded every six months what amount will Sudhanshu get at the end of the year?
(a) ₹ $16,537.50$
(b) ₹ 16,5000
(c) ₹ $16,525.50$
(d) ₹ 18,150
(e) None of these
18. A sum was put at simple interest at a certain rate for 4 years Had it been put at $2 \%$ higher rate, it would have fetched ₹ 56 more. Find the sum.
(a) ₹ 500
(b) ₹ 600
(c) ₹ 700
(d) ₹ 800
(e) None of these
19. Simple interest on a certain sum is 16 over 25 of the sum. Find the rate per cent and time, if both are equal.
(a) $8 \%$ and 8 years
(b) $6 \%$ and 6 years
(c) $10 \%$ and 10 years
(d) $12 \%$ and 12 years
(e) None of these
20. A father left a will of $₹ 68,000$ to be divided between his two sons aged 10 years and 12 years such that they may get equal amount when each attains the age of 18 years If the money is reckoned at $10 \%$ p.a., find how much each gets at the time of the will.
(a) ₹ 30,000 , ₹ 38,000
(b) ₹ 28,000 , ₹ 40,000
(c) ₹ 32,000 , ₹ 36,000
(d) cannot be determined.
(e) None of these
21. If there are three sum of money $P, Q$ and $R$ so that $P$ is the simple interest of Q and Q is the simple interest of R , rate $\%$ and time are same in each case, then the relation of $\mathrm{P}, \mathrm{Q}$ and R is given by
(a) $\mathrm{P}^{2}=\mathrm{QR}$
(b) $\mathrm{Q}^{2}=\mathrm{PR}$
(c) $\mathrm{R}^{2}=\mathrm{PQ}$
(d) $\mathrm{PQR}=100$
(e) None of these
22. In a shipment of 120 machine parts, 5 per cent were defective. In an another shipment of 80 machine parts, 10 per cent were also defective. For the two shipments combined, what per cent of the machine parts were defective ?
(a) $6.5 \%$
(b) $7.0 \%$
(c) $7.5 \%$
(d) $8.0 \%$
(e) None of these
23. The sum of two numbers is $\frac{28}{25}$ of the first number. The second number is what percent of the first?
(a) $12 \%$
(b) $14 \%$
(c) $16 \%$
(d) $18 \%$
(e) None of these
24. By reduction of $20 \%$ in the price of oranges, one can purchase 5 oranges more for ₹ 2.50 . Find the reduced price of the oranges per dozen. Find also the original price.
(a) 120 paise, 140 paise
(b) ₹ 0.8 , ₹ 1.5
(c) ₹ 1.0 , ₹ 1.5
(d) ₹ 1.2. , ₹ 1.5
(e) None of these
25. An inspector rejects $0.08 \%$ of the metres as defective. How many metres will he examine to reject 2 metres?
(a) 200 m
(b) 250 m
(c) 2500 m
(d) 3000 m
(e) None of these
26. In a competitive examination in State $\mathrm{A}, 6 \%$ candidates got selected from the total appeared candidates. State B had an equal number of candidates appeared and $7 \%$ candidates got selected with 80 more candidates got selected than $A$. What was the number of candidates appeared from each State?
(a) 7600
(b) 8000
(c) 8400
(d) Data inadequate
(e) None of these
27. In a certain school, $20 \%$ of students are below 8 years of age. The number of students above 8 years of age is $\frac{2}{3}$ of the number of students of 8 years age which
is 48 . What is the total number of students in the school?
(a) 72
(b) 80
(c) 120
(d) 90
(e) None of these
28. A positive number is by mistake divided by 6 instead of being multiplied by 6 . What is the $\%$ error on the basis of correct answer?
(a) 3
(b) 97
(c) 17
(d) 83
(e) None of these
29. From the salary of an officer, $10 \%$ is deducted as house rent, $20 \%$ of the rest, he spends on conveyance, $20 \%$ of the rest he pays as income tax and $10 \%$ of the balance, he spends on clothes. Then, he is left with ₹ 15,552. Find his total salary.
(a) ₹ 25,000
(b) ₹ 30,000
(c) ₹ 35,000
(d) ₹ 40,000
(e) None of these
30. The cost of 4 cell-phones and 7 digital cameras is ₹ $1,25,627$. What is the cost of 8 cell-phones and 14 digital cameras?
(a) ₹ 251254
(b) ₹ 252627
(c) ₹ 225524
(d) Cannot be determined
(e) None of these
31. Mahesh purchased three calculators and four penstands for ₹ 2,140 . He then purchased an additional calculator and five pen-stands for ₹ 1,355 . How much did he spend on purchasing only the calculators?
(a) ₹ 1,575
(b) ₹ 1,920
(c) ₹ 1,440
(d) ₹ 1,540
(e) None of these
32. The profit earned after selling an article for $₹ 1,754$ is the same as loss incurred after selling the article for ₹ 1,492 . What is the cost price of the article?
(a) ₹ 1,623
(b) ₹ 1,523
(c) ₹ 1,689
(d) ₹ 1,589
(e) None of these
33. Prathik sold a music system to Karthik at $20 \%$ gain and Karthik sold it to Swasthik at $40 \%$ gain. If Swasthik paid ₹ 10,500 for the music system, what amount did Prathik pay for the same?
(a) ₹ 8,240
(b) ₹ 7,500
(c) ₹ 6,250
(d) Cannot be determined
(e) None of these
34. A trader wants $10 \%$ profit on the selling price of a product whereas his expenses amount to $15 \%$ on sales. What should be his rate of mark up on an article costing ₹ 9 ?
(a) $20 \%$
(b) $66 \frac{2}{3} \%$
(c) $30 \%$
(d) $\frac{100^{3}}{3} \%$
35. By selling an umbrella for ₹ 30 , a merchant gains $20 \%$. During a clearance sale, the merchant allows a discount of $10 \%$ off the marked price (the price at which he used to sell). Find his gain per cent.
(a) $6 \%$
(b) $7 \%$
(c) $8 \%$
(d) $9 \%$
(e) None of these
36. By what $\%$ must the cost of goods be marked up so that even after a discount of $20 \%$ the same amount is realised as before the discount?
(a) 20
(b) 25
(c) 40
(d) 10
(e) None of these
37. If a merchant estimates his profit as $20 \%$ of the selling price, what is his real profit per cent?
(a) $18 \%$
(b) $20 \%$
(c) $25 \%$
(d) $28 \%$
(e) None of these
38. A cycle agent buys 30 bicycles, of which 8 are first grade and the rest are second grade for ₹ 3150 . Find at what price he must sell the first grade bicycles so that if he sells the second grade bicycles at third quarter of the price, he may make a profit of $40 \%$ on both the type of transactions?
(a) ₹ 200
(b) ₹ 240
(c) ₹ 180
(d) ₹ 210
(e) None of these
39. On selling a pen at $5 \%$ loss and a book at $15 \%$ gain, Karan gains ₹ 7 . If he sells the pen at $5 \%$, and the book at $10 \%$ gains, then he gains ₹ 13 . The actual price of the book is :
(a) ₹ 100
(b) ₹ 80
(c) ₹ 10
(d) ₹ 40
(e) None of these
40. A video magazine distributor made 3500 copies of the March issue of the magazine at a cost of ₹ $3,50,000$. He gave 500 cassettes free to some key video libraries. He also allowed a $25 \%$ discount on the market price of the cassettes and gave one extra cassette free with every 29 cassettes bought at a time. In this manner, he was able to sell all the 3500 cassettes that were produced. If the market price of a cassette was ₹ 150 , then what is his gain or loss percent for the March issue of the video magazine?
(a) $3.4 \%$ loss
(b) $15 \%$ gain
(c) $40 \%$ gain
(d) $6.8 \%$ loss
(e) None of these

## REASONING ABILITY

Directions (Qs. 41-43) : Following questions are based on English alphabet.
ABCDEFGHIJKLMNOPQRSTUVWX YZ
41. If the letters from T to Z are interchanged by the letters A to $G$ in such a way that A takes the position of T and so on, then which will be the third letter to the left of 18th letter from right?
(a) Y
(b) U
(c) B
(d) C
(e) None of these
42. If first 6 letters shall be written in opposite order, then the next 6 letters shall be written in opposite order and so on, and at the end Y will be interchanged by Z
then which will be the fourth letter to the right of 13 th letter from left?
(a) J
(b) H
(c) I
(d) O
(e) None of these
43. What will come in place of the question mark (?) in the following series? DGK GKP ? PVC
(a) GKV
(b) KPV
(c) PVZ
(d) KPU
(e) None of these
44. How many pairs of letters are there in the word EXCLUSIVE which have as many letters between them as in the alphabet?
(a) 2
(b) 3
(c) 4
(d) Nil
(e) None of these
45. How many such pairs of letters are there in the word HORIZONTAL, each of which has as many letters between them in the word (in both forward and backward directions) as they have between them in the English alphabetical series ?
(a) None
(b) One
(c) Two
(d) Three
(e) More than three
46. Doctor : Hospital :: Teacher : ?
(a) Office
(b) School
(c) House
(d) Field
(e)

None of these
47. Producer : Film :: Author : ?
(a) Food
(b) Newspaper
(c) Book
(d) Poem
(e) None of these
48. Bulky : Fat : : Happiness : ?
(a) Bad
(b) Ugly
(c) Joy
(d) Sorrow
(e) None of these
49. BDF : HIL :: MOQ : ?
(a) XVT
(b) TVX
(c) VTX
(d) TUX
(e) None of these
50. $14: 9$ :: $26: ?$
(a) 12
(b) 13
(c) 15
(d) 31
(e) None of these
51. If CONTRIBUTE is written as ETBUIRNTOC, which letter will be in the sixth place when counted from the left if POPULARISE is written in that code?
(a) L
(b) A
(c) I
(d) R
(e) None of these
52. In a certain code language the word 'DISPLAY' is written as ' BLQSJDW'. How will the word 'PROJECT' be written in that language?
(a) NUMMCER
(b) NUNMCFR
(c) NTNMCFR
(d) NUMMCFR
(e) None of these
53. If ' $w$ ' is coded as ' $a$ ', ' $s$ ' as ' $r$ ' and ' $r$ ' and ' $r$ ' as ' $w$ ' how will 'answer' be written ?
(a) wnsaes
(b) anraew
(c) anrwas
(d) wnraes
(e) None of these
54. In a certain code APPROACH is coded as CHOAPRAP. How will RESTRICT be coded?
(a) CTRISTER
(b) ERTSIRTC
(c) CTRISTRE
(d) TCIRSTRE
(e) None of these
55. In a certain code 'Kit Mit Fit' means 'I Am Laborious'; 'Zit Rit Kit' means 'Laborious Is Dangerous' and 'Sit Fis Rit' means 'Dangerous Extremely Painful' then in that language what is code for 'Is'?
(a) Kit
(b) Zit
(c) Rit
(d) Data inadequate
(e) None of these
56. In a certain code 'ni tim si' means 'How are you'; 'ble ni si' means 'where are you', then which of the following word is used for 'where'?
(a) ni
(b) tim
(c) si
(d) ble
(e) None of these
57. If 'water' is called 'food', 'food' is called 'tree', 'tree' is called 'sky', 'sky' is called 'wall', on which of the following grows a fruit?
(a) Water
(b) Food
(c) Sky
(d) Tree
(e) None of these
58. If 'orange' is called 'butter', 'butter' is called 'soap', 'soap' is called 'ink', 'ink' is called 'honey' and 'honey' is called 'orange'. Which of the following is used for washing clothes?
(a) Honey
(b) Butter
(c) Orange
(d) Soap
(e) Ink.

Directions :(Qs. 59-63): In each of the following questions, four alternatives are given, out of which three are alike in a certain way while one is different. Choose the odd one.
59.
(a) Mango
(b) Apple
(c) Brinjal
(d) Grapes
60. (a) JOT
(b) OUT
(c) FED
(d) DIN
61.
(a) 28
(b) 65
(c) 126
(d) 215
62.
(a) 15-12
(b) 20-10
(c) $30-18$
(d) 45-27
63. (a) ABDGK
(b) CDFIM
(c) BCEHL
(d) EFGIK
64. Pointing out to a photograph, a man tells his friend, " she is the daughter of the only son of my father's wife." How is the girls related to the man in the photograph?
(a) Daughter
(b) Cousin
(c) Mother
(d) Sister
(e) None of these
65. X ' is the wife of ' Y ' and ' Y ' and Y ' is the brother of ' Z ' , ' Z ' is the son of ' P '. How is ' P ' related to ' X '
(a) Sister
(b) Aunt
(c) Brother
(d) Father
(e) None of these

Directions (Qs. 66-67) : $S$ and $R$ are brothers. $T$ is daughter of $S$. $U$ is the spouse of $R$ and mother of Q. $P$ is the daughter of $V$, who is the spouse of $T$.
66. Who is the grand father of P ?
(a) U
(b) S
(c) R
(d) V
67. Who is the cousin of Q ?
(a) T
(b) V
(c) R
(d) $P$
68. Sobha was facing East. She walked 20 metres. Turning left she moved 15 metres and then turning right moved 25 metres. Finally, she turned right and moved 15 metres more. How far is she from her starting point.
(a) 25 metres
(b) 35 metres
(c) 50 metres
(d) 45 metres
(e) None of these
69. Jatin leaves his house and walks 12 km towards North. He turns right and walks another 12 km . He turns right again, walks 12 km more and turns left to walk 5 km . How far is he from his home and in which direction?
(a) 7 km East
(b) 10 km East
(c) 17 km East
(d) 24 km East
(e) None of these

Directions (Qs. 70-74) : Study the following information carefully and answer the given questions.
Seven persons A, B, C, D, E, F and G are sitting in a straight line (not necessarily in the same order) facing north.
(a) Only two persons sit between F and G and G sits second to the left of B.
(b) D sits third to the left of C.
(c) E sits exactly between $G$ and $B$ and $B$ sits at the extreme right end of the row.
70. Who amongst the following sits at the extreme left of the line?
(a) F
(b) D
(c) C
(d) E
(e) G
71. Four of the following five are alike in a certain way based on their seating positions in the above arrangement and so form a group. Which is the one that does not belong to that group?
(a) AG
(b) CE
(c)
DA (d)
AF
(e) GB
72. How many persons sit between F and E ?
(a) One
(b) Two
(c) Three
(d) Four
(e) Five
73. Who amongst the following sits exactly in the middle of the line?
(a) A
(b) C
(c) E
(d) G
(e) F
74. What is the position of E with respect to A ?
(a) Third to the right
(b) Second to the right
(c) Second to the left
(d) Fourth to the right
(e) Immediate left

Directions (Qs. 75-79): In the following questions, the symbols \#, \$, @, * and © are used with the following meaning as illustrated below:
' $P$ \# $Q$ ' means ' $P$ is not smaller than $Q$ '
' $P \$ Q$ ' means ' $P$ is neither smaller than nor greater than $Q^{\prime}$
' $P$ @ $Q$ ' means ' $P$ is neither greater than nor equal to $Q$ ' ' $P$ * $Q$ ' means ' $P$ is not greater than $Q$ '
' $P$ © $Q$ ' means ' $P$ is neither smaller than nor equal to Q'
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer
(a) if only Conclusion I is true.
(b) if only Conclusion II is true.
(c) if either Conclusion I or II is true.
(d) if neither Conclusion I nor II is true.
(e) if both Conclusions I and II are true.
75. Statements:

B \$ K, $\quad K @ D, \quad D \# M$
Conclusions:
I. $B \$ M$
II. $B$ @ $M$
76. Statements:
$H @ N, \quad N$ © $W, \quad W \# V$
Conclusions:
I. $H$ @ V
II. $V$ @ $N$
77. Statements:
$J * D$,
$Q \# D$,
$Q @ M$

Conclusions:
I. $Q$ © $J$
II. $Q \$ J$
78. Statements:
$F \# G, \quad N \$ G, \quad N$ © $T$
Conclusions:
I. $\quad T \subset F$
II. $N^{*} F$
79. Statements:
$M$ © $\quad$, $\quad$ @,$\quad K$ \$ $T$
Conclusions:
I. $\quad T$ © $R$
II. $T$ © $M$
80. If ' P ' means 'divided by', ' R ' means 'multiplied by', ' T ' means 'added to' and ' W ' means 'subtracted from', then 60 T 48 P 8 W 6 R $9=$ ?
(a) 12
(b) $61 \frac{1}{23}$
(c) $40 \frac{1}{2}$
(d) 24
(e) None of these

## ENGLISH LANGUAGE

Directions (Qs. 81-84): In the questions below the sentences have been given in Active/Passive voice. From the given alternatives, choose the one which best expresses the given sentence in Passive/Active voice.
81. I remember my sister taking me to the museum.
(a) I remember I was taken to the museum by my sister.
(b) I remember being taken to the museum by my sister.
(c) I remember myself being taken to the museum by my sister.
(d) I remember taken to the museum by my sister.
82. Who is creating this mess?
(a) Who has been created this mess?
(b) By whom has this mess been created?
(c) By whom this mess is being created?
(d) By whom is this mess being created?
83. They greet me cheerfully every morning.
(a) Every morning I was greeted cheerfully.
(b) I am greeted cheerfully by them every morning.
(c) I am being greeted cheerfully by them every morning.
(d) Cheerful greeting is done by them every morning to me.
84. Darjeeling grows tea.
(a) Tea is being grown in Darjeeling.
(b) Let the tea be grown in Darjeeling.
(c) Tea is grown in Darjeeling.
(d) Tea grows in Darjeeling.

Directions (Qs. 85-87): Complete the following sentences using adjectives or adverbs in the appropriate degree of comparison.
85. The Everest is $\qquad$ the Aconcagua
(a) the highest
(b) highest than
(c) the higher than
(d) higher than
86. Michael was $\qquad$ basketball player in the world
(a) taller
(b) tallest
(c) the taller
(d) the tallest
87. To fall from a motorcycle is $\qquad$ to fall from a bicycle.
(a) more painful
(b) more painful than
(c) painfuller than
(d) the painfullest

Directions (Qs. 88-90): In the questions below the sentences have been given in Direct/Indirect speech. From the given alternatives, choose the one which best expresses the given sentence in Indirect/Direct speech.
88. "Are you alone, my son?" asked a soft voice close behind me.
(a) A soft voice asked that what I was doing there alone.
(b) A soft voice said to me are you alone son.
(c) A soft voice from my back asked If I was alone.
(d) A soft voice behind me asked If I was alone.
89. She said to him, "Why don't you go today?"
(a) She asked him why he did not go that day.
(b) She said to him why he don't go that day.
(c) She asked him not to go that day.
(d) She asked him why he did not go today.
90. "If you don't keep quite I shall shoot you", he said to her in a calm voice.
(a) He warned her to shoot if she didn't keep quite calmly.
(b) He said calmly that I shall shoot you if you don't be quite.
(c) He warned her calmly that he would shoot her if she didn't keep quite.
(d) Calmly he warned her that be quite or else he will have to shoot her.

## COMPUTER KNOWLEDGE

91. Which device can understand difference between data and programs?
(a) Input device
(b) Output device
(c) Memory
(d) Microprocessor
(e) None of these
92. Which of the following devices have a limitation that we can only read it but cannot erase or modify it?
(a) Tape Drive
(b) Hard Disk
(c) Compact Disk
(d) Floppy Disk
(e) None of these
93. Which of the following is not an output device?
(a) Plotter
(b) Printer
(c) Monitor
(d) Touch Screen
(e) None of these
94. Data that is copied from an application is stored in the
$\qquad$
(a) driver
(b) clipboard
(c) terminal
(d) prompt
(e) None of these
95. The word processing task associated with changing the appearance of documents is
(a) Writing
(b) Formatting
(c) Editing
(d) Storing
(e) None of these
96. Which part is the "brain" of the computer
(a) CPU
(b) Monitor
(c) RAM
(d) ROM
(e) None of these
97. Which type of memory is closely related to processor?
(a) Main memory
(b) Secondary memory
(c) Disk memory
(d) Tape memory
(e) None of these
98. Computers send and receive data in the form of $\qquad$ signals
(a) analog
(b) digital
(c) modulated
(d) demodulated
(e) All of these
99. Checking that a pin code number is valid before it is entered into the system in an example of
(a) error correction
(b) backup and recovery
(c) data preparation
(d) data validation
(e) None of these
100. An example of a telecommunications device is a
(a) keyboard
(b) mouse
(c) printer
(d) modem
(e) None of these

## ANSWERS

| 1. (a) | 2. (e) | 3. (a) | 4. (e) | 5. | (d) | 6. (b) | 7. (d) | 8. | (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9. (b) | 10. (e) | 11. (a) | 12. (a) | 13. | (c) | 14. (b) | 15. (b) | 16. | (a) |
| 17. (a) | 18. (c) | 19. (a) | 20. (c) | 21. | (b) | 22. (b) | 23. (a) | 24. | (d) |
| 25. (c) | 26. (b) | 27. (d) | 28. (b) | 29. | (b) | 30. (a) | 31. (b) | 32. | (a) |
| 33. (c) | 34. (d) | 35. (c) | 36. (b) | 37. | (c) | 38. (c) | 39. (b) | 40. | (d) |
| 41. (a) | 42. (e) | 43. (b) | 44. (b) | 45. | (e) | 46. (b) | 47. (c) | 48. | (c) |
| 49. (d) | 50. (c) | 51. (a) | 52. (d) | 53. | (b) | 54. (c) | 55. (b) | 56. | (d) |
| 57. (c) | 58. (e) | 59. (c) | 60. (b) | 61. | (d) | 62. (b) | 63. (d) | 64. | (a) |
| 65. (d) | 66. (b) | 67. (a) | 68. (d) | 69. | (c) | 70. (c) | 71. (e) | 72. | (a) |
| 73. (d) | 74. (e) | 75. (d) | 76. (b) | 77. | (c) | 78. (b) | 79. (a) | 80. | (a) |
| 81. (b) | 82. (d) | 83. (b) | 84. (c) | 85. | (d) | 86. (d) | 87. (b) | 88. | (d) |
| 89. (a) | 90. (c) | 91. (d) | 92. (d) | 93. | (d) | 94. (b) | 95. (b) | 96. | (a) |
| 97. (a) | 98. (b) | 99. (d) | 100. (d) |  |  |  |  |  |  |

