

# NUST Test 01 for Business & Management Sciences

## Section 1 Problem Solving

1. If the price of a tin pack is increased by 20% and the quantity sold is decreased by 20%, then the net effect on gross receipts
  - A. Decreases by 20%
  - B. Decreases by 4%
  - C. Stays the same
  - D. Increases by 10%
  - E. Increases by 20%
2. If it is 250 miles from New York to Boston and 120 miles from New York to Hartford, what percentage of the distance from New York to Boston is the distance from New York to Hartford?
  - A. 12
  - B. 24
  - C. 36
  - D. 48
  - E. 52
3. The lead in a mechanical pencil is 5 inches long. After pieces  $\frac{1}{8}$  of an inch long,  $1\frac{3}{4}$  inches long, and  $1\frac{1}{12}$  inches long are broken off, how long is the lead left in the pencil?
  - A. 2 in.
  - B.  $2\frac{1}{24}$  in.
  - C.  $2\frac{1}{12}$  in.
  - D.  $2\frac{1}{4}$  in.
4. It costs  $x$  dollars each to make the first thousand copies of a compact disk and  $y$  dollars to make each subsequent copy. If  $z$  is greater than 1,000, how many dollars will it cost to make  $z$  copies of the compact disk?
  - A.  $1,000x + yz$
  - B.  $Zx - zy$
  - C.  $1,000 (z - x) + xy$
  - D.  $1,000 (z - y) + xz$

E.  $1,000(x - y) + yz$

5. How many two-digit numbers satisfy the following property: the last digit (units digit) of the square of the two-digit number is 8?

- A. None  
B. 1  
C. 2  
D. 3  
E. More than 3

6. If  $x + y = 3$  and  $\frac{y}{x} = 2$ , then  $y$  is equal

- A. 0  
B.  $\frac{1}{2}$   
C. 1  
D.  $\frac{3}{2}$   
E. 2

7. Ms. Taylor purchased stock for \$1,500 and sold  $\frac{2}{3}$  of it after its value doubled. She sold the remaining stock at 5 times its purchase price. What was her total profit on the stock?

- A. \$1,500  
B. \$2,000  
C. \$2,500  
D. \$3,000  
E. \$6,000

8. If 20 liters of chemical X are added to 80 liters of a mixture that is 10% chemical X and 90% chemical Y, then what percentage of the resulting mixture is chemical X?

- A. 18%  
B. 28%  
C. 20%  
D. 10%

9. If  $x + y = z$  and  $x$  and  $y$  are positive, then which of the following statements can be inferred?

- I)  $x < y$   
II)  $x < z$



III)  $x < 2z$

- A. I only
- B. II only
- C. I and II only
- D. II and III only
- E. I, II, and III

10. Mr. Smith drove at an average speed of 50 pmh for the first two hours of his trip. For the next three hours, he averaged 20 mph. what was Mr. Smith's average speed for the five-hour trip?

- A. 30mph
- B. 32mph
- C. 35mph
- D. 38mph
- E. 160mph

11. If in 1997, 1998, and 1999 a worker received 10% more in salary each year than she did the previous year, how much more did she received in 1999 than in 1997?

- A. 10%
- B. 11%
- C. 20%
- D. 21%
- E. 30%

12. If  $x$  is a number satisfying  $2 < x < 3$  and  $y$  is a number satisfying  $7 < y < 8$ , which of the following expressions will have the largest value?

- A.  $x^2y$
- B.  $xy^2$
- C.  $5xy$
- D.  $\frac{4x^2y}{3}$
- E.  $\frac{x^2}{y}$

13. If 50 apprentic can finish a job in 4 hours and 30 skilled workers can finish the same job in  $4\frac{1}{2}$  hours, hour much of the job should be completed by 10 apprentices and 15 skilled workers in one hour?

— 500

- A.  $\frac{1}{9}$
- B.  $\frac{29}{180}$
- C.  $\frac{26}{143}$
- D.  $\frac{1}{5}$

14. In a bag there are 78 red balls, 45 green balls and some yellow balls. If the probability of finding a yellow ball blindly from the bag is 0.4. What is the total number of yellow balls in the bag?

- A. 90
- B. 123
- C. 78
- D. 41
- E. 322

15. In a country, 55% of the male population has houses in cities while 30% have houses both in cities and in villages. Find the percentage of the population that has houses only in villages.

- A. 35
- B. 45
- C. 15
- D. 25

16.  $30 \times 40 = ? \times 72$

- (a) 100                      (b) 600                      (c) 300                      (d) 400

17.  $1200 \div 20 \times 0.5 = ?$

- (a) 10                      (b) 20                      (c) 30                      (d) 40

18.  $\frac{(40 \times 2) + 120 + 100}{92.5 - 90.5} = ?$

- (a) 210                      (b) 120                      (c) 450                      (d) 155

19. Change  $\frac{26}{6}$  to a mixed number.



- (a)  $3\frac{2}{8}$  (b) 50 (c)  $4\frac{2}{6}$  (d)  $6\frac{2}{6}$

20.  $\frac{1680 \div 16.80}{0.5} = ?$

- (a) 100 (b) 30 (c) 600 (d) 200

21.  $\frac{200}{\sqrt{?}} = 5$

- (a) 100 (b) 500 (c) 1500 (d) 1600

22.  $Z + \frac{1}{Z} = 2, Z = ?$

- (a) 1 (b) 2 (c) 3 (d) 0

23. 25% of x = 250, x = ?

- (a) 2000 (b) 1000 (c) 10,000 (d) 100

24.  $\frac{5}{9} \div \frac{15}{18} \div \frac{12}{6} = ?$

- (a)  $\frac{4}{9}$  (b)  $\frac{3}{2}$  (c)  $\frac{2}{6}$  (d)  $\frac{14}{12}$

25.  $(130)^2 - (120)^2 = ?$

- (a) 2000 (b) 2500 (c) 3000 (d) 1000

26.  $\frac{12}{4} + \frac{8}{4} + \frac{6}{4} = ?$

- (a) 12 (b) 20 (c)  $12\frac{6}{4}$  (d)  $6\frac{2}{4}$

27. Change  $6\frac{3}{5}$  to an improper fraction

- (a)  $\frac{33}{5}$  (b)  $\frac{22}{6}$  (c)  $\frac{20}{5}$  (d)  $\frac{30}{5}$

28 Gene and Joann each bought some ink-O pens and an ink eraser. Gene paid \$1.75 for 3 pens and 1 eraser. Joann paid \$1.25 for 2 pens and 1 eraser. What is the price of one of the pens?

- A) \$ 0.1 B) \$ 0.15 C) \$ 0.25 D) \$ 0.5

29. What percent of 4 is 5?

- A) 75% B) 80% C) 125% D) 150%

30. Through how many degrees does the minute hand of a clock turn from 3:10 p.m. to 3:25 p.m. of the same day?

- A)  $15^\circ$  B)  $30^\circ$  C)  $45^\circ$  D)  $90^\circ$

31. If  $n$  is divided by 9, the remainder is 5. What is the remainder if  $3n$  is divided by 9?

- A) 4 B) 5 C) 6 D) 7

32. If  $a \times b \times c = 72$ , where  $a$ ,  $b$ , and  $c$  are integers and  $a > b > c > 1$ , what is the greatest possible value of  $a$ ?

- A) 12 B) 18 C) 24 D) 36

33 If  $x$  is an integer, which of the following could NOT equal  $x^3$ ?

- A) -8 B) 0 C) 1 D) 16

34 If  $x = 7 + y$  and  $4x = 6 - 2y$ , what is the value of  $x$ ?

- A) -4 B)  $-\frac{4}{3}$  C)  $-\frac{1}{6}$  D)  $\frac{10}{3}$

35 A bag contains a number of pieces of candy of which 78 are red, 24 are brown, and the remainder are yellow. If the probability of selecting yellow piece of candy from this bag at random is  $\frac{1}{3}$ , how many yellow pieces of candy are in the bag?

- A) 34 B) 51 C) 54 D) 102

36 If  $p = 4\left(\frac{x + y + z}{3}\right)$ , then, in terms of  $p$ , what is the average (arithmetic mean) of  $x$ ,  $y$ , and  $z$ ?

- A)  $4p$  B)  $3p$  C)  $\frac{p}{3}$  D)  $\frac{p}{4}$

37 Brenda received pledges from 30 people for a 50-mile bike-a-thon. If Brenda rode 50 miles and each person gave \$0.10 for each mile she rode, which of the following gives the total dollar amount of money Brenda collected?

- A)  $30 \times 50 \times 0.10$  B)  $30 \times 50 + 0.10$  C)  $50 \times 0.10 + 30$  D)  $50 + 30 \times 0.10$

38 If  $r = as^4$  and  $s = bt^3$ , which of the following is a correct expression for  $r$  in terms of  $a$ ,  $b$ , and  $t$ ?

A)  $abt^{12}$

B)  $ab^4t^7$

C)  $ab^4t^{12}$

D)  $a^4b^4t^7$

39 If  $p$  and  $r$  are integers,  $p \neq 0$ , and  $p = -r$ , which of the following must be true?

A)  $p < r$

B)  $p > r$

C)  $p + r < 0$

D) None

40 One number is 3 times another number, and their sum is  $-10$ . What is the lesser of the two numbers?

A)  $-2.5$

B)  $-3.0$

C)  $-7.0$

D)  $-5.5$

## Section 2 Verbal

### Reading Comprehension Passage

It happened one day that a fisherman putting out to sea in a boat was just about to cast a net, when right in front of him he saw a man on the point of drowning. Being a stout-hearted and at the same time an agile man, he jumped up and, seizing a boathook, thrust it towards the man's face. It caught him right in the eye and pierced it. The fisherman hauled the man into the boat and made for the shore without casting any of his nets. He had the man carried to his house and given the best possible attention and treatment, until he had got over his ordeal. For a long time, that man thought about the loss of his eye, considering it a great misfortune. "That wretched fellow put my eye out, but I didn't do him any harm. I'll go and lodge a complaint against him—Why, I'll make things really hot for him!" Accordingly he went and complained to the magistrate, who fixed a day for the hearing. They both waited till the day came round, and then went to the court. The one who had lost an eye spoke first, as was appropriate. "Gentlemen," he said, "I'm bringing a complaint against this worthy, who, only the other day, savagely struck me with a boathook and knocked my eye out. Now I'm handicapped. Give me justice, that's all I ask. I've nothing more to say." The other promptly spoke up and said, "Gentlemen, I cannot deny that I knocked his eye out, but if what I did was wrong, I'd like to explain how it all happened. This man was in mortal danger in the sea, in fact he was on the point of drowning. I went to his aid. I won't deny I struck him with my boathook, but I did it for his own good: I saved his life on that occasion. I don't know what more I can say. For God's sake, give me justice!"

The court was quite at a loss when it came to deciding the rights of the case, but a fool who was present at the time said to them, "Why this hesitation? Let the first speaker be thrown back into the sea on the spot where the other man hit him in the face, and if he can get out again, the defendant shall compensate him for the loss of his eye. That I think fair judgment." Then they all cried out as one man, "You're absolutely right! That's exactly what we'll do!" Judgment was then pronounced to that effect. When the man heard that he was to be thrown into the sea, just where he had endured all that cold water before, he wouldn't have gone back there for the entire world. He released the Goodman from any liability, and his earlier attitude came in for much criticism.

In the light of this incident, you can take it from me that it's a waste of time to help a scoundrel. Release guilty thief from the gallows, and he will never like you for it. A wicked man will never be grateful to

anyone who does him a good turn: He'll forget all about it; it will mean nothing to him. On the contrary, he would be only too glad to make trouble for his benefactor if he ever saw him at a disadvantage.

41. The word cast is used
- |         |            |
|---------|------------|
| A) Tint | B) Perform |
| C) Hurl | D) Mold    |
42. Paragraph 1 makes it clear that the fisherman is
- |                             |                             |
|-----------------------------|-----------------------------|
| A) Essentially well-meaning | B) Clumsy and Foolish.      |
| C) Fat but nimble           | D) Hard-working and honest. |
43. The word fixed is used to mean
- |              |            |
|--------------|------------|
| A) Corrected | B) Secured |
| C) Set       | D) Mended  |
44. The word worthy is used to mean
- |             |                 |
|-------------|-----------------|
| A) Caliber  | B) Significance |
| C) Morality | D) Gentleman    |
45. Paragraph 3 concerns
- |                                 |                         |
|---------------------------------|-------------------------|
| A) The narrator's beliefs       | B) The court's wishes   |
| C) The one-eyed man's complaint | D) The fisherman's plea |
46. The fool's suggested solution to the case was
- |                          |                      |
|--------------------------|----------------------|
| A) Pitiless and spiteful | B) Absurd but lawful |
| C) Harsh but fair        | D) Just and merciful |
47. The phrase "as one man" means
- |               |                         |
|---------------|-------------------------|
| A) Manfully   | B) As someone once said |
| C) One by One | D) Together             |
48. "In the light of this incident" means
- |                         |                                   |
|-------------------------|-----------------------------------|
| A) Thanks to that event | B) Because of this tale           |
| C) Without further ado  | D) As you can see from this story |

49. The narrator clearly believes that the one-eyed man
- |    |                   |    |                 |
|----|-------------------|----|-----------------|
| A) | Showed good sense | B) | Had bad luck    |
| C) | Deserved better   | D) | Was a scoundrel |
50. The moral of this story might be
- |    |   |    |                                   |
|----|---|----|-----------------------------------|
| A) | Do unto others as you would have them do unto you | B) | A wicked man is never satisfied   |
| C) | You can only be good so long                      | D) | There is no such thing as justice |

## Sentence Completion

51. I can vouch for his honesty; I have always found him \_\_\_\_\_ and carefully observant of the truth.
- |              |              |
|--------------|--------------|
| A. arbitrary | B. plausible |
| C. volatile  | D. veracious |
52. This well documented history is of importance because it carefully \_\_\_\_\_ the \_\_\_\_\_ accomplishments of Indian artist who are all too little known to the public at large.
- |                             |                           |
|-----------------------------|---------------------------|
| A. Recognize.....negligible | B. Overlook.....purported |
| C. Scrutinizes.....illusory | D. Distorts....noteworthy |
53. Perhaps because he feels \_\_\_\_\_ by an excess of parental restrictions and rules, at adolescence the repressed child may break out dramatically.
- |             |               |
|-------------|---------------|
| A. nurtured | B. Appeased   |
| C. confined | D. fascinated |
54. Sue felt that Jack's \_\_\_\_\_ in the face of the compelling evidence which she had presented was an example of his \_\_\_\_\_ mind.
- |                           |                        |
|---------------------------|------------------------|
| A. Truculence....unbiased | B. Skepticism...open   |
| C. Incredulity....closed  | D. Acquiescence...keen |
55. As a girl, Emily Dickinson was \_\_\_\_\_ but also \_\_\_\_\_ extraordinarily intense her poetry yet exceptionally inhibited socially.
- |                         |                       |
|-------------------------|-----------------------|
| A. Zealous...gregarious | B. Ardent...repressed |
| C. Prudent...reserved   | D. Rash....intrusive  |

- 56.** The good night sleep had \_\_\_\_\_ effect on the weary climber, who work refreshed and eager to resume the ascent.  
A. An innocuous  
B. A tonic  
C. A minor  
D. An enervating
- 57.** She is an interesting\_\_\_\_\_, an infinitely shy person who, in apparent contradiction, possesses an enormously intuitive\_\_\_\_\_for understanding people.  
A. Aberration...disdain  
B. Caricature...talent  
C. Specimen....loathing  
D. Phenomenon...disinclination
- 58.** The coach's harsh rebuke deeply wounded the star quarterback, who had never been\_\_\_like that before.  
A. summoned  
B. Reprimanded  
C. stimulated  
D. placated
- 59.** At the present time, we are suffering from\_\_\_\_\_of stories about the war try writing about another subject.  
A. A calumny  
B. A dearth  
C. An insurgence  
D. A plethora
- 60.** Because he was\_\_\_\_\_, he shunned human society.  
A. A misanthrope  
B. An oligarch  
C. An anomaly  
D. A stereotype

## Antonyms

- |            |            |           |     |               |     |            |                    |
|------------|------------|-----------|-----|---------------|-----|------------|--------------------|
| <b>61.</b> | PRIM:      |           |     |               |     |            |                    |
|            | (A)        | Prior     | (B) | Private       | (C) | Informal   | (D) Cautious       |
| <b>62.</b> | PROFUSION: |           |     |               |     |            |                    |
|            | (A)        | Scarcity  | (B) | Validity      | (C) | Ordinance  | (D) Travesty       |
| <b>63.</b> | PROBITY:   |           |     |               |     |            |                    |
|            | (A)        | Extent    | (B) | Assumption    | (C) | Regret     | (D) Corruptibility |
| <b>64.</b> | PERNIOUS:  |           |     |               |     |            |                    |
|            | (A)        | Injurious | (B) | Fatal         | (C) | Nourishing | (D) Healthy        |
| <b>65.</b> | PROLIFIC:  |           |     |               |     |            |                    |
|            | (A)        | Barren    | (B) | Controversial | (C) | Unworkable | (D) Backward       |

66. PREDICAMENT:  
 (A) Comfort (B) Firmness (C) Confidence (D) Certainty
67. PROVIDENT:  
 (A) Wealthy (B) Disabled (C) Rash (D) Remote
68. PUNITIVE:  
 (A) Restive (B) Rewarding (C) Humorous (D) Large
69. PROVINCIAL:  
 (A) Aural (B) Crass (C) Literary (D) Sophisticated
70. PUTATIVE:  
 (A) Powerful (B) Colonial (C) Undisputed (D) Unremarkable

## Analogies

### 71. WHEAT : GRAIN

- |                       |                   |
|-----------------------|-------------------|
| A. Cow : Beef         | B. Orange : Line  |
| C. Carrot : Vegetable | D. Coconut : Palm |

### 72. COTTAGE: CASTLE

- |                     |                 |
|---------------------|-----------------|
| A. House : Building | B. Puppy : Dog  |
| C. Dory ; Liner     | D. Man : Family |

### 73. OLD : ANTIQUE

- |                     |                      |
|---------------------|----------------------|
| A. New : Modern     | B. Cheap : Expensive |
| C. Useless : Useful | D. Wanted : Needed   |

### 74. TIME : MINUTES

- |                     |                  |
|---------------------|------------------|
| A. Month : Calendar | B. Clock : Faces |
| C. Race : Laps      | D. Yard : Area   |

### 75. MOUNTAIN: TUNNEL

- |                   |                    |
|-------------------|--------------------|
| A. Window : Frame | B. River : Bridge  |
| C. Door : Handle  | D. Charcoal : Fire |

### 76. LIBRARY : BOOKS

- |                     |                 |
|---------------------|-----------------|
| A. Hotel : Children | B. Zoo : Animal |
| C. Office : Sale    | D. Park : Cars  |

77. TINY : HUGE
- A. Small : Little                      B. Inferior : Superior
- C. Door : Handle                      D. Charcoal : Fire
78. FRIGHTEN : SCARED
- A. Question : Ask                      B. Look : See
- C. Terrorize : Panic                      D. Brave : Coward
79. SEARCHED : FIND
- A. Fight : Win                      B. Obey : Believe
- C. Look : Seek                      D. Write : Read
80. DOOR : OPEN
- A. Cap : Remove                      B. Knife : Cut
- C. Black : Board                      D. Gift : Take

### Section 3 Intelligence

Find the one which is different.

81. (A) MNO (B) EFG (C) STW (D) XYZ
82. (A) EVU (B) OLK (C) RHI (D) BCD
83. (A) 13 (B) 17 (C) 83 (D) 45
84. (A) B (B) X (C) V (D) W
85. (A) 21-2 (B) 35-243 (C) 42-16 (D) 32-9
86. A man is facing west. He turns 45 degree in the clockwise direction and then another 180 degree in the same direction and then 270 degree in the anticlockwise direction. Find which direction he is facing now ?
- A. South-West                      B. West
- C. South                      D. East-South
87. A man is facing north. He turns 45 degree in the clockwise direction and then another 180 degree in the same direction and then 45 degree in the anticlockwise direction. Find which direction he is facing now ?
- A. North                      B. East
- C. West                      D. South



88. One day, Raviraj left home and cycled 20 Km southwards, turned right and cycled 10 km and turned right and cycled 20 Km and turned left and cycled 20 Km. How many kilometres will he have to cycle to reach his home straight ?
- A. 50 Km B. 30 Km  
C. 40 Km D. 60 Km
89. If GIVE is coded as 5137 and BAT is coded as 924 how is GATE coded ?
- A. 5427 B. 2547  
C. 5247 D. 5724
90. If in a certain code, LUTE is written as MUTE and FATE is written as GATE, then how will BLUE be written in that code ?
- A. CLUE B. GLUE  
C. FLUE D. SLUE
91. In a certain case INSTITUTION is written as NOITUTITSNI. How is PERFECTION written in that code ?
- A. NOICTEFREP B. NOITCEFERP  
C. NOITCEFREP D. NOITCEPPER
92. In a certain case GIGANTIC is written as GIGTANCI. How is MIRACLES written in that code?
- A. MIRLCAES B. MIRLACSE  
C. RIMCALSE D. RIMLCAES
93. The author of Muslim Sahih is:
- A) Imam Gzali B) Imam Muslim C) Imam Iqbal D) Imam Abu Hanifa
94. Platos creation is
- A) People B) Polite C) Dialogues D) State
95. How many meetings shall be held, every year, of the National Police management?
- A) Three B) Two C) One D) None of these
96. By which name Lahore is famous?
- A) City of Market B) City of people C) City of Colleges D) None of these

97. Which city of Italy is famous as "City of seven Hills"?  
A) Italy B) Jordan C) Iran D) Rome
98. What is continent Africa called?  
A) Fair Continent B) Dark Continent C) Red continent D) All of these
99. The earth consists of three main zones; hydrosphere; lithosphere and  
A) Atmosphere B) Ionosphere C) Photosphere D) None of these
100. What is called flow of a body of water, air, of heat, moving in a definite direction?  
A) Mantel B) Current C) Core D) Crater