# PASS Education System

# PASS SUCCESS SERIES (NTS-NAT) Test

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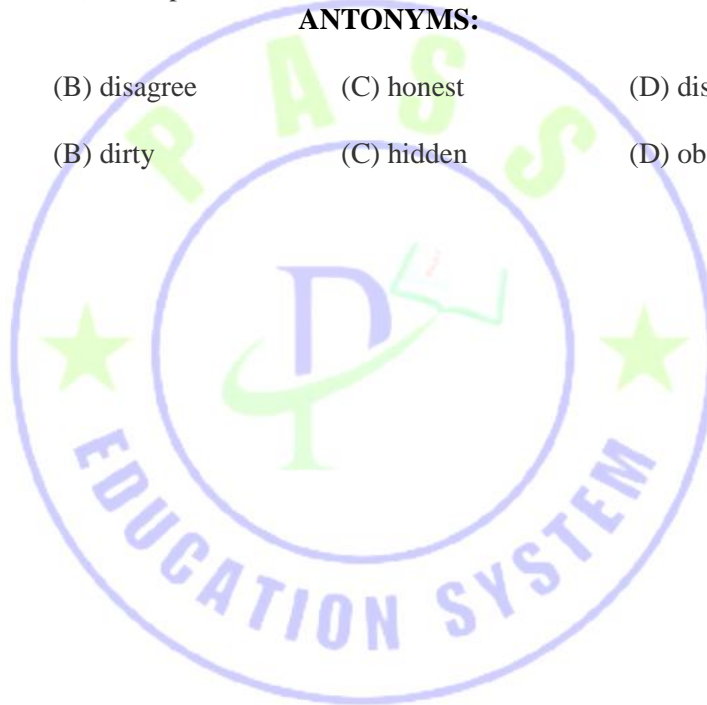
## ENGLISH

Unemployment is an important index of economic slack and lost output, but it is much more than that. For the unemployed person, it is often a damaging affront to human dignity and sometimes a catastrophic blow to family life. Nor is this cost distributed in proportion to ability to bear it. It falls most heavily on the young, the semiskilled and unskilled, the black person, the older worker, and underemployed person in a low income rural area who is denied the option of securing more rewarding urban employment… The concentrated incidence of unemployment among specific groups in the population means far greater costs to society that can be measured simply in hours of involuntary idleness or dollars of income lost. The extra costs include disruption of the careers of young people, increased juvenile delinquency, and perpetuation of conditions which breed racial discrimination in employment and otherwise deny equality of opportunity. There is another and more subtle cost. The social and economic strains of prolonged under-utilization create strong pressures for cost-increasing solutions… On the side of labor, prolonged high unemployment leads to "share-the-work" pressures for shorter hours, intensifies resistance to technological change and to rationalization of work rules. On the side of business, the weakness of markets leads to attempts to raise prices to cover high average overhead casts and to pressures for protection against foreign and domestic competition.

1.  According to the passage, unemployment is an index of
    (A) over utilization of capacity  (B) economic slack and lost output
    (C) diminished resources  (D) the employment rate
2.  While unemployment is damaging to many, it falls most heavily upon all except the
    (A) black  (B) semiskilled  (C) unskilled  (D) white middle class
3.  The cost to society of unemployment can be measured by all except
    (A) lost incomes  (B) idleness  (C) the death rate  (D) juvenile delinquency
4.  Serious unemployment leads labor groups to demand
    (A) more jobs by having everyone work shorter hours  (B) higher wages to those employed
    (C) "no fire" policies  (D) cost-cutting solutions
5.  According to the passage, a typical business reaction to a recession is to press for
    (A) higher unemployment insurance  (B) protection against imports
    (C) government action  (D) restrictive business practices

### SYNONYMS

6.  **REFUTE**
    (A) prove  (B) break  (C) disprove  (D) disclose
7.  **COGNIZANT**
    (A) aware  (B) strict  (C) lenient  (D) ignored
8.  **INTREPID**
    (A) afraid  (B) brave  (C) happy  (D) unhappy
9.  **INGENUOUS**

(A) clever          (B) innocent          (C) brave          (D) coward

**10. 22. FORESEE**

(A) immoral          (B) well-behaved          (C) consideration          (D) predict

**11. BELLICOSE**

(A) tasty          (B) sugary          (C) hostile          (D) attractive

**12.  OVERHAUL**

(A) repair          (B) description          (C) conclusion          (D) wash

**ANTONYMS:**

**13.  CONCUR**

(A) agree          (B) disagree          (C) honest          (D) dishonest

**14. LATENT**

(A) transparent          (B) dirty          (C) hidden          (D) obvious

**15. DEARTH**
(A) abundance      (B) lack      (C) death      (D) sickness
**16.  PUSILLANIMOUS**
(A) hatred      (B) coward      (C) brave      (D) loving
**17. DISCLOSE**
(A) secret      (B) reveal      (C) conceal      (D) stop
**18. CRESTFALLEN**
(A) peak      (B) bottom      (C) sad      (D) cheerful
**19. EXTEMPORANEOUS**
(A) planned      (B) not planned      (C) error      (D) example
**20. SCARCITY**
(A) fearful      (B) tiring      (C) lack      (D) abundance

## Analytical Reasoning

On the first day of school in September, seven new students – A, B, C, D, E, F and G – must be each assigned to a guidance counselor. There are three counselor – R, S and T - and each student is assigned to exactly one of them. In making the assignments the director must adhere to the following conditions :
• No counselor can be assigned more than three of the students.
• A and B must be assigned to the same counselor.
• Neither C nor D can be assigned to same counselor as E or F
• F is not assigned to T
QUESTION # 1
If E is assigned to S and F is assigned to R, which of the following can"t be true ? (a) A is assigned to S
(b) A is assigned to T (c) B is assigned to R (d) B is assigned to S (e) G is assigned to T
QUESTION # 2
If A and C both are assigned to R, which of the following could be true ?
(a) More students are assigned to S than R (b) More students are assigned to T than S (c) Only one student is assigned to S
(d) Only one student is assigned to T
(e) Three students are assigned to T
QUESTION # 3
If B is assigned to S, then which of the following could be true ? (a) A is assigned to R and C is assigned to T
(b) C is assigned to R and D is assigned to S
(c) C is assigned to R and G is assigned to S
(d) C is assigned to R and D is assigned to T
(e) F is assigned to R and E is assigned to S
QUESTION # 4
If B and S are assigned to the same counselor and at least two students are assigned to each counselor, how many different ways are there to assign the seven students?
    (a) 0      (b) 1      c) 2      d) 3      e) 4
A four person congressional committee is to be formed consisting of two senators
and two representatives. The senators are to be chosen from W, X, Y and Z.
The representatives are to be chosen from P, Q, R and S. The committee will be chosen by vice president subject to the following conditions:
• S will not serve on committee unless X does
• Y will not serve on committee with Q
• The president has decided that Y or Z must be included but neither Y nor Z is willing to serve with other
QUESTION # 1

Which of the following could be the fourth member of the committee that already consists of R, W and Y:
(a) P (c) S (e) Z (b) Q (d) X

QUESTION # 2
If neither P nor R is assigned to the committee which of the two senators must be on the committee?
(a) W and Y (c) W and Z (e) Y and Z (b) X and Y (d) X and Z

QUESTION # 3
Which of the following can be other three members of the committee that includes Y? (a) P, R, Z (c) Q, R, X (e) S, W, X    (b) P, S, W (d) R, S, X

QUESTION # 4
  If the vice president choses S to be on the committee which of the following could Not be on the committee?
        (a)  (c) R (b) Q (d) W


A museum curator must arrange nine paintings – F, G, H, J, K, K, L, M, N, and O – in twelve Spaces counted consequently from 1-12. The painting must be in three groups, each group representing a different century. The groups must be separated from each other by at least one unused wall space. Three of the paintings are from 18$^{th}$ century, two from 19$^{th}$ century and four from the 20$^{th}$ century.
. Unused wall spaces cannot occur with in groups
. G and J are paintings from the different centuries
. J, K and L are the paintings all from same century
. Space no. 5 is always empty
. F and M are 18$^{th}$ century paintings
. N is a 19$^{th}$ century painting

QUESTION No. 1
If space 4 is to remain empty, which of the following is true?
    a)   Space no. 10 must be empty
    b)   the groups of paintings must be hung in chronological order by century
    c)   An 18$^{th}$ century painting must be hung in space 3
    d)   A 19$^{th}$ century building must be hung in space 1

QUESTION No. 2
If the paintings are hung in the reverse chronological order by century, the unused wall spaces could be:
    a)   1,5 and 10            b) 1,6 and 10
    c). 5,9 and 10            d) 5,8 and 12


QUESTION No. 3
Which of the following is a space that cannot be occupied by the 19$^{th}$ century painting?
a). Space 1        b) Space 9        c) Space 6        d) Space 11

QUESTION NO. 4
If J hangs in space 11, which of the following is a possible arrangements for Spaces 8 and 9:
a). F in 8 and M in 9            b) K in 8 and G in 9
c) N in 8 and G in 9            d) 8 unused and H in 9


A Florist has exactly seven varieties of flowers – P. Q, R, S, T, U and V – from which she must select combinations of exactly five varieties with which to make different flower arrangements. Any combinations of the five varieties that conform to all of the conditions is acceptable:
. If P is used in an arrangements T cannot be used in that arrangement
. If Q is used in arrangement then U must also be used in that arrangement
. If R is used in an arrangement then T is also be used in that arrangement

QUESTION NO.  1
Which of the following is an acceptable combination of varieties that the florist can select for arrangements?

a). P, Q, S, T, U    b) P, Q, R, U, V    c) P, S, T, U, V    d) Q, R, S, T, U

QUESTION No. 2

If the florist selects the variety R to be included in arrangements, which of the following must be true of that arrangements?

a). P is not used    b) U is not used    c) Q is not used    d) S is not used

QUESTION NO. 3

If variety P is used in arrangement, which of the following CANNOT be used in that arrangement?

a). Q    b) R    c) S    d) U

QUESTION No. 4

If the florist does not select variety V for an arrangement, which of the following cannot be selected?

a). P    b) Q    c) R    d) S

Ten different fabrics are being displayed on rack along one wall of a store. The racks are next to each other in a straight line and are numbered consecutively from One to Ten. On each rack is a single bolt of different fabrics. One fabric is green. Two fabrics are different shades of brown, three fabrics are different shades of purple And the remaining four fabrics are different shades of red:

. Purple fabrics are on rack one and ten
. The two brown fabrics are on racks next to each other
. No red fabric in on a rack next to a brown fabric
. No purple fabric is on a rack next to a green fabric

QUESTION No. 1

If a purple fabric is on a rack two and red fabrics are on rack three and four, the green fabric must be in which of the following racks?

a). Five    b) Six    c) Seven    d) Eight

Question No. 2

If the four red fabrics are on four consecutive racks, green fabric and the one brown Fabrics could be one which of the following racks respectively?

a). Two and Three    b) Three and Four    c) Four and Five    d) Six and Seven

QUESTION NO. 3

Which of the following are colors of fabrics that CANNOT be on racks Two, Three and Four, respectively

a). Purple,Red,Green    b) Purple, Brown, Brown    c) Brown, Brown,Purple    d) Red,Red,Green

Question No. 4

If a purple fabric is on rack Three and brown fabric on rack four, the green fabric must be in which of the following racks?

a). 2    b). 5    c) 6    d) 7

## **Quantitative Reasoning**

1. What is the average of first 150 natural numbers?

    (A) 70    (B) 70.5    (C) 75    (D) 75.5

2. $0.003 \times 0.02 = ?$

    (A) 0.06    (B) 0.006    (C) 0.0006    (D) 0.00006

3. What is the average of the numbers: 0, 0, 4, 10, 5, and 5 ?

    (A) 2    (B) 3    (C) 4    (D) 5

4. $|{-4}| + |4| - 4 + 4 = ?$

    (A) 0    (B) 2    (C) 4    (D) 8

5. What is the value of x in the equation $3x - 15 - 6 = 0$ ?

    (A) 7    (B) 8    (C) 9    (D) –9

6. What is the area in cm2 of the shaded region in the diagram below?

    (A) 6    (B) 7    (C) 8    (D) 9

7. If A completes a particular work in 8 days and B completes the same work in 24 days. How many days will it take if they work together?

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

8. What comes next in the sequence: 1, 3, 11, 43, _____ ?

    (A) 161         (B) 171         (C) 181        (D) 191

9. $42 + |4| + |-4| - 42 = ?$

    (A) −4          (B) 0           (C) 4          (D) 8

10. If one-third of one-fourth of a number is 15, then three-tenths of that number is:

    a) 35     b) 36     c) 45     d) 54     e) None of these

11. Find the number, when 15 is subtracted from 7 times the number, the result is 10 more than twice the number:

    a) 5     b) 15     c) 7.5     d) 4

12. The difference between a number and its three-fifth is 50. What is the number?

    a) 75     b) 100     c) 125     d) None of these

13. The cost of renting a bike at the local bike shop can be represented by the equation

    $Y = 2x + 2$ where Y is the total cost and is the number of hours the bike is rented. Which of the following ordered pairs would be the possible number of hours rented, x, and the corresponding total cost y.

    a) (0,-2)     b) (2,6)     c) (6,2)     d) (-2,-6)

14. Ahmad participated in a dance party. His team started dancing at 10 A.M on Friday and stopped at 6 P.M on Saturday. How many hours did Ahmad"s team dance?

    a) 52     b) 56     c) 30     d) 32

15. A nation park keeps track of how many people per car enter the park. Today, 57 cars had 4 people, 61 cars had 2 people, 9 cars had 1 person, and 5 cars had 5 people. What is the average number of people per car? Round the nearest person.

    a) 2     b) 3     c) 4     d) 5

16. How much greater is 0.0543 than 0.002?

    a) 0.0343     b) 0.0072     c) 0.0523     d) 0.0563

17. Jeff is 5 years older than Laura, and was twice her age 3 years ago. How old is laura?

    a) 5     b) 6     c) 7     d) 8     e) 9

18. The ratio of boys and girls in a class is 5 to 6. Which of the following could be the number of boys in the class? Indicate all possible answers.

    a) 5     b) 7     c) 11     d) 18     e) 15

19. Four business partner share the profit in the ratio of 6 :3 : 2 : 1. If the profit is 36000, find the largest share.

    a) 1800     b) 18000     c) 2800     d) 28000     e) None of these

20. Salaries of A and B are in the ratio of 2:3. If the salary of each is increased by Rs. 4000 the new ratio becomes 40 : 57. What is B"s present salary?

    a) 34000     b) 38000     c) 27000     d) None of these

21. The area of the circle is $16\pi$. The length of the diameter of the circle is:

    a) 2     b) 32     c) 4     d) 16     e) 8

22. Successive discounts of 10% and 15% is equivalent to a single discount of:

    a) 24%     b) 24.5%     c) 23.5%     d) 22%     e)25%

    **Hint:**   successive discout (decrease) = ( - x − y + %

22. If Hammad can finish a job in 5 hours and Mubeshercan finish the same job in 10 hours, how many minutes will it take both of them together to finish the job?

    a) 210     b) 220     c) 160     d) 180     e) None of these

    **Hint:** To do a job combine total time = )days

23. What percent of 25 is ?

a) 50%    b) 25%    c) 33 %    d) 20%    e) 75%

16. If = , then x =?
    a) 2    b) 8    c)    d)    e) 3

24. Ali"s average score on his first 3 tests is 90. If his average of his last 2 tests is 80, what is his average score for all 5 tests?
    a) 85    b) 86    c) 89    d) 88    d) 87

25. 6 men can do a piece of work in 12 days. How manymen are needed to do the work in 18 days?
    a) 2    b) 6    c) 3    d) 5    d) 4

26. Of the 20 people who won prize money, 7 have come forward to claim their winnings. What percent of the people have not yet appeared?
    a) 35    b) 20    c) 65    d) 70    e) 42

27. If x is increased by 10% and y is decreased by 10%, the resulting numbers will be equal. What is the ratio x to y?
    a)    b)    c)    d)    e) None of these

28. If x = 235 and y = 117, then =?
    a) 118    b) 100    c) 115    d) 352

29. If $x^2 + y^2 = 9$ and $(x - y)^2 = 3$, what is the value of xy?
    a) 16    b) 9    c) 6    d) 3

30. If the sum of two numbers is 36, and the larger is three times as larger as the smaller, what is the larger number?
    a) 27    b) 30    c) 15    d) 18

31. If p , q and r are different prime numbers less than 15, what is the greatest possible value of =?
    a) 9    b) 2    c) 13    d) 12

32. What is the value of x if = 243?
a) 3    b) 5    c) 7    d) 4

# PHYSICS

Q.1: SI unit of torque is -------- ?
    a). N.m    b) joule    c) Both a and b are correct    d) Neither a nor b is correct

Q.2: Electrons---------?
    a). Can exist inside the nucleus    b) Cannot exist inside the nucleus
    c). Can exist both inside and outside the nucleus    d) Do not know

Q.3: The charge on neutron is ---------- ?
    a). Plus 1.6 x 10-19C    b) Zero    c) Minus 1.6 x 10-19C    d) No definite charge

Q.4: Ideal fluid is-----------?
    a). Non-viscous    b) Incompressible    c) Steady flow    d) Possess all properties

Q.5: At Murree Hills (Assume the value of g changes). If we use a simple pendulum as time standard then one-second duration will  ?
    a).Increase    b) Decrease    c) Remains the same    d) Is zero

Q.6: The total energy of a body executing S.H.M is directly proportional to -----------?
a). The square root of amplitude    b) The amplitude
c) Reciprocal of amplitude    d) Square of an amplitude

Q.7: An observer shoots parallel to a meter stick at very high (relativistic) speed and finds that the length of meter stick is---------?
a) . greater than one meter    b) less than one meter    c) one meter    d) a foolish question

Q.8: A transmitting station emits radio waves of wavelength λ at power P. If h is Planck"s constant & c the speed of light what is the rate of emission of photons ?
    a) . λ    b) Speed of sound    c) Speed of light    d) h

Q.9: A point where the incident parallel rays of light converge or appear to diverge after passing through

a lens is called ------- ?

      a). center of curvature      b) focus      c) optical center      d) aperture

Q.10: Numerical value of Boltzmanns constant is-------- ?

a). 1.38×10-31JK-1        b) 3.18×10-31JK-1        c) 3.18×10-23JK-1        d) 1.38×10-23JK-1

Q.11: Petrol engine is a --------- ?

    a). C.I engine        b) SI engine        c) IC engine        d) all the above

Q.12: The resultant of two forces of equal magnitudes is also equal to the magnitude of the forces. The angle between the two forces is --------- ?

    a). 30°        b) 60°        c) 90°        d) 120°

Q.13: Two vectors are A = 3i^+2j^ -k^ & B = 3i^-2j^ +k^ , then--------?

    a). B is anti-parallel to A        b) B is a negative vector of A

    c). B has a negative magnitude        d) B is perpendicular to A

Q.14: A body in equilibrium ------------?

    a) . Always at rest        b) Always in uniform motion

    c). May be at rest or in uniform motion        d) May be at rest or in motion

Q.15: Transuranic elements have an atomic number--------?

a). Greater than 72        b) Greater than 82        c) Greater than 92        d) Greater than 102

Q.16: Mass of neutron is----------?

a). 1.67 x 10-31 kg        b) 1.67 x 10-27 kg        c) 9.1 x 10-31 kg        d) 1.67 x 10-19 kg

Q.17: Centripetal force performs---------?

    a). Maximum work        b) Minimum work        c) Negative work        d) No work

Q.18: The planet nearest to the earth is --------- ?

    a). Venus        b) Mercury        c) Uranus        d) Sun

Q.19: The restoring force acting on the simple pendulum is given by--------?

    a). mg sin θ        b) mg sin θ        c) mg cos θ        d) mg cos θ

# MATHEMATICS

1. What is the average of first 150 natural numbers?

(A) 70        (B) 70.5        C) 75        (D) 75.5

2. $0.003 \times 0.02 = ?$

(A) 0.06        (B) 0.006        (C) 0.0006        (D) 0.00006

3. What is the average of the numbers: 0, 0, 4, 10, 5, and 5 ?

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4. $|-4| + |4| - 4 + 4 = ?$

(A) 0        (B) 2        (C) 4        (D) 8

5. What is the value of x in the equation $3x - 15 - 6 = 0$ ?

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(A) 161        (B) 171        (C) 181        (D) 191

9. $42 + |4| + |-4| - 42 = ?$

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10. What is the value of x in the equation

(A) 12        (B) 14        (C) 16        (D) 18

# BIOLOGY

1. Which component of the body works as an energy storage device?

(A) Fats        (B) Proteins        (C) Liver        (D) Skin

2. Plants absorb most part of water needed by them through their
(A) stem      (B) root hairs      (C) leaf      (D) bark

3. About_____of the body weight of a mammal is water.
(A) 60%      (B) 65%      (C) 70%      (D) 75%

4. On wound_____fight foreign particles, like bacteria.
(A) White Blood cells      (B) Red Blood Cells      (C) Platelets      (D) Plasma

5. All enzymes are protein which are
(A) globular      (B) fibrous      (C) helical      (D) all of these

6. Cilia are produced from
(A) mitochondria      (B) cell-membrane      (C) centriole      (D) cytoplasm

7. Which of the following disease is not caused by virus
(A) T.B      (B) AIDS      (C) HIV      (D) flu

8. Which of the following is a filamentous alga
(A) ulva      (B) chlorella      (C) acetabularia
(D) spirogyra

9. Which of the following is not sac fungi
(A) truffles      (B) yeasts      (C) mushrooms      (D) morels

10. „Cassia fistula" is the scientific name of
(A) amaltas      (B) rose      (C) onion      (D) tomato

11. Phage virus consists of head and
(A) thorax      (B) neck      (C) tail      (D) none of these

12. Bacteria without any flagella are called
(A) monotrichous      (B) atrichous      (C) peritrichous      (D) lophotrichous

Never Stop Until You Have Done Completely And Truly.

(Taimoor Hassan) CEO PASS Education System

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system