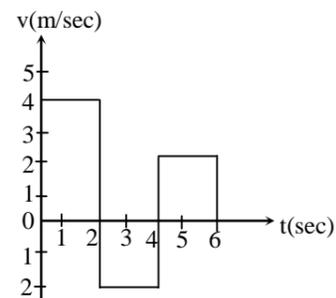


Science

- Q.1 The velocity-time graph of a body moving in a straight line is shown in figure. The displacement and distance travelled by the body in 6 second are respectively-



- (a) 8m, 16m
(b) 16m, 8m
(c) 16m, 16m
(d) 8m, 8m
- Q.2 A body of mass M strikes against wall with a velocity v and rebounds with the same velocity. Its change in momentum is -
(a) zero
(b) Mv
(c) $-Mv$
(d) $-2Mv$
- Q.3 A student dropped a stone in Ranital pond. After striking on the surface of water he heard the sound in 0.01sec. If the speed of sound is 330 m/s. What will be its height above the surface of pond?
(a) 4.2 m
(b) 3.3 m
(c) 2.1 m
(d) None of these
- Q.4 Substance which vaporise during burning gives -
(a) Sound
(b) Flame
(c) Combustion
(d) None of these
- Q.5 Which of the following is an almost pure form of carbon?
(a) Coke
(b) Coal tar
(c) Coal gas

(d) Black carbon.

- Q.6 The components of water can be separated by -
(a) Physical Methods
(b) **Chemical Methods**
(c) Both
(d) They cannot be separated
- Q.7 Project Tiger was launched in which year?
(a) 1963
(b) **1973**
(c) 1983
(d) 1993
- Q.8 Which of the following is the smallest micro-organisms?
(a) Algae
(b) Bacteria
(c) Protozoan
(d) **Virus**
- Q.9 Which hormone is responsible for secondary sexual character in girls?
(a) **Estrogen**
(b) Testosterone
(c) Thyroxin
(d) Adernalin
- Q.10 The girth of the stem or root increases due to-
(a) Apical meristem
(b) **Cambium**
(c) Intercalary meristem
(d) Epidermis

SOCIAL SCIENCE

- Q.11 The national Assembly framed a constitution in 1791 of limit the powers of the
(a) **Monarch**
(b) Wealthy man
(c) Business man
(d) Press
- Q.12 French women demanded the right
(a) **to vote**
(b) to be elected to the assembly
(c) to hold political office
(d) All of the above

- Q.13 The leader of the Bolshevik party was
(a) Stalin
(b) **Lenin**
(c) kart marx
(d) Louis Blanc
- Q.14 Tsarina Alexandra was of the
(a) German origin
(b) French origin
(c) **Russian origin**
(d) Dutch origin
- Q.15 Bigha and Cuinta are
(a) the type of village house
(b) the type of hybrid seeds
(c) the measuring units of grain
(d) **the measuring units of land are in village.**
- Q.16 The most abundant factor of population is
(a) **labour**
(b) land
(c) machinery
(d) All of the above
- Q.17 The two determinants of earning by an individual in the market are:
(a) Health and education
(b) **Education and skills**
(c) Age and education
(d) Skill and age
- Q.18 Which of the following is included in the primary sector?
(a) Manufacturing
(b) **Foresting**
(c) Tourism
(d) Communication
- Q.19 The word democracy comes from the greek word
(a) Democracia
(b) **Demokratia**
(c) Demos
(d) Kratia
- Q.20 In which period did china face one of the worst famines that have occurred in the world?
(a) 1932-1936
(b) **1958-1961**

(c) 2001-2022
(d) 2004-2007

MatheMatics

- Q.21 Let R_1 and R_2 are the remainders when the polynomials $x^3 + 2x^2 - 5ax - 7$ and $x^3 + ax^2 - 12x + 6$ are divided by $2x + 1$ and $2x - 3$ respectively. If $2R_1 + R_2 = 2$, then the value of a is
(a) $\frac{-24}{58}$
(b) $\frac{-251}{58}$
(c) $\frac{191}{58}$
(d) None of these
- Q.22 In a quadrilateral ABCD, $\angle A = (3x + 4)^\circ$, $\angle B = (5x - 6)^\circ$, $\angle C = (x - 3)^\circ$ and $\angle D = (x - 5)^\circ$, then the values of $\angle A$, $\angle B$, $\angle C$ and $\angle D$ are respectively
(a) **115°, 179°, 34°, 32°**
(b) 120°, 177°, 35°, 33°
(c) 100°, 184°, 39°, 37°
(d) None of these
- Q.23 The value of $\frac{(0.06)^2 + (0.47)^2 + (0.079)^2}{(0.006)^2 + (0.047)^2 + (0.0079)^2}$ is
(a) 0.1
(b) 10
(c) **100**
(d) 1000
- Q.24 Determine rational numbers p and q if $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = p - 7\sqrt{5}q$
(a) $p = 1, q = -\frac{1}{11}$
(b) $p = 0, q = -\frac{1}{11}$
(c) $p = -\frac{1}{11}, q = 0$
(d) $p = -\frac{1}{11}, q = 1$
- Q.25 The parallel sides of a trapezium are 30 and 20 units and non-parallel sides are 13 and 15 units. Then its area is
(a) **$25\sqrt{15.2 \times 10.8}$**
(b) $50\sqrt{15.2 \times 10.8}$
(c) $10\sqrt{15.2 \times 10.8}$
(d) $\sqrt{15.2 \times 10.8}$
- Q.26 In a ΔABC , the medians AD, BE and CF intersects at G. If AD = 7.2 cm, then AG is
(a) **4.8 cm**
(b) 2.4 cm

- (c) 3.6 cm
- (d) 1.7 cm

Q.27 A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort, the number of days for which the remaining food will last, is :

- (a) $29\frac{1}{5}$
- (b) $37\frac{1}{4}$
- (c) 42**
- (d) 54

Q.28 Find the angle which is four times its compliment is 10° less than twice its complement

- (a) 15°
- (b) 10°
- (c) 25°
- (d) 5°**

Q.29 There are 90 students in class 9th of Career Academy.

- (i) 50% students gets above 85% marks,
- (ii) 30% of students gets above 90% marks
- (iii) remaining students passed above 60% marks?

Find the No. of students who gets (85 – 90)% marks in examination

- (a) 18**
- (b) 27
- (c) 45
- (d) 9

Q.30 If $f = (7 + 4\sqrt{3})$, then the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$ is :

- (a) 8
- (b) 6
- (c) 5
- (d) 4**

Mental ability

Q.31 In certain code language, 'CAREER' is written as 'DBSFFS'. Following the same code language, how would you write 'ACADEMY'?

- (a) BDBEFNZ**
- (b) BDCEFMZ
- (c) CDBEANZ
- (d) BABEFNZ

Q.32 If 'South – East' is called 'East', North-West' is called 'West', 'South- West' is called 'South' and so on, what will 'North' be called ?

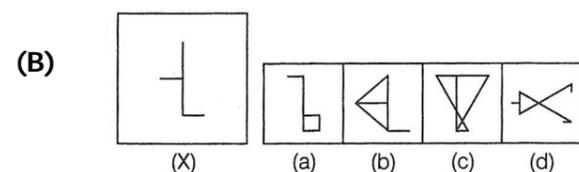
- (a) East
- (b) North- East**
- (c) North – West
- (d) South – West.

Q.33 Choose the alternative which most closely resembles the mirror image of the given combination

CAREER ACADEMY

- (a) **CAREER ACADEMY**
- (b) YMEDVCV BEEKAC**
- (c) **CAREER ACADEMY**
- (d) **YMEDVCV BEEKAC**

Q.34 You are given a figure (X) following by four figure (a), (b), (c) and (d) such that (x) is embedded in one of them. Trace out the correct alternative.



Q.35 Which one of the following four interchanges in signs and/or numbers would make the given equation correct.

- If \times stands for +, $<$ stands for $-$, $>$ stands for \times , $+$ stands for \div , $-$ stands for $=$, \div stands for $>$, and $=$ stands for $<$, then which of the given equations is correct?
- (a) $8 < 4 \times 3 - 3 \times 2 \times 1$
 - (b) $8 > 4 < 3 - 3 > 2 < 1$
 - (c) $8 + 4 < 3 \div 3 < 2 < 1$
 - (d) $8 + 4 \times 3 = 3 > 2 \times 1$.**

Q.36 Choose the alternative which most closely resembles the water image of the given combination.

- (D) FAMILY**
- (a) **FAMILY**
- (b) **YLIAM**
- (c) **YLIAM**
- (d) **YLIAM**

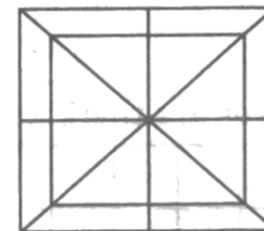
Q.37 If (i) A + B means 'A is the husband of B'
(ii) A \div B means 'A is the sister of B'.

(iii) A \times B means 'A is the son of B'.
Then, which of the following shows that A is the daughter of B?

- (a) A \div C \times B
- (b) C \times B \div A
- (c) B + C \times A**
- (d) C \times B + C \div A

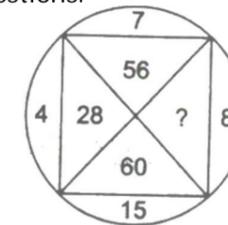
Q.38 How many triangles are there in the following figure?

- (a) 16
- (b) 24**
- (c) 28
- (d) 32.



Q.49 Insert the missing letter or numerical value in following questions.

- (a) 33
- (b) 145
- (c) 120**
- (d) 18.



Q.40 Four problem figures are given. Select a figure from amongst the answer figures which will continue the same series as given in the problem figures.

