



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPSC



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC CHSL 2022 (Tier-I) Previous Year Paper (17-Mar-2023) (Shift 3)

Total Time: 1 Hour

Total Marks: 200

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks
1	General Intelligence and Reasoning	25	50
2	General Awareness	25	50
3	Quantitative Aptitude	25	50
4	English Comprehension	25	50

- 1.) A total of 60 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

General Intelligence and Reasoning

1. Select the option in which the numbers share the same relationship in set as that shared by the numbers in the given sets. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed) (+2, -0.5)
- (15, 13, 56)
- (17, 11, 168)
- a. (15, 11, 114)
- b. (23, 21, 78)
- c. (20, 14, 204)
- d. (22, 16, 238)
-
2. If $132 \text{ F } 624 = 657$ and $84 \text{ F } 321 = 504$, then $168 \text{ F } 27 = ?$ (+2, -0.5)
- a. 591
- b. 203
- c. 195
- d. 793
-
3. In the following question, select the related letters from the given alternatives. (+2, -0.5)

OQ : PT :: WZ : ?

- a. ZW
- b. ID
- c. XC
- d. WC

4. In a certain code language, 'RATHER' is coded as 'TGJUBS'. What is the code for 'SAFETY' in that code language? (+2, -0.5)

- a. AVGHBT
- b. AVGBGT
- c. AVHGBT
- d. AVGGBT

5. By Interchanging the given two numbers (Not digits) which of the following equation will be correct? (+2, -0.5)

5 and 9

I. $7 \times 9 + 5 - 8 \div 4 = 42$

II. $9 \times 3 + 5 \div 1 - 4 = 20$

- a. Both I and II
- b. Neither I nor II
- c. Only II

d. Only I

-
6. In the following question, four number pairs are given. In each pair the number on left side of (–) is related to the number of the right side of (–) with some Logic/Rule /Relation. Three pairs are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives. (+2, -0.5)
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

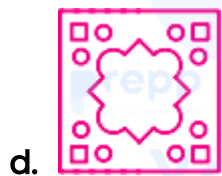
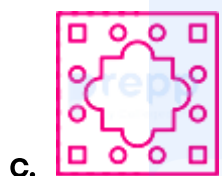
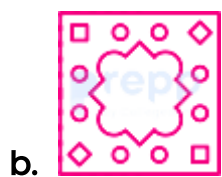
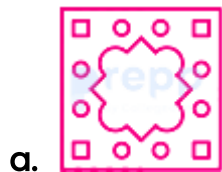
- a. 2278 – 6834
- b. 3072 – 9216
- c. 1008 – 3024
- d. 3744 – 11322

-
7. In the following question, select the odd word pair from the given alternatives. (+2, -0.5)

- a. Court – Tennis
- b. Gymnasium – Exercise
- c. Wrestling – Arena
- d. Pitch – Cricket

-
8. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when (+2, -0.5)

opened?



9. In the following question some statements are given, followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements. (+2, -0.5)

Statements:

- I. All S are R.
II. No R is T.

Conclusions:

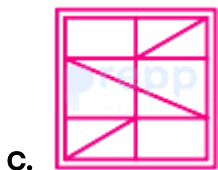
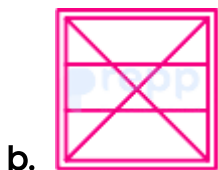
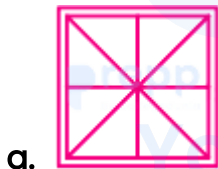
I. No T is R.

II. No S is T.

III. No R is S.

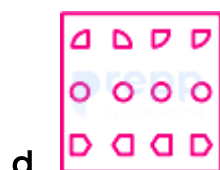
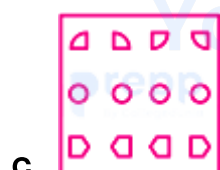
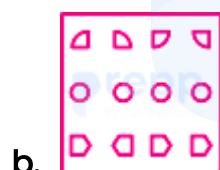
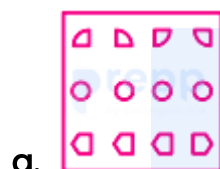
- a. All conclusion follows
- b. Both conclusions I and II follows
- c. Both conclusions II and III follows
- d. Both conclusions I and III follows

10. Select the option figure in which the given figure is embedded. (rotation is NOT allowed) (+2, -0.5)





11. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened? (+2, -0.5)



12. How many quadrilaterals are there in the given figure? (+2, -0.5)



- a. 23
- b. 22
- c. 24
- d. 25

13. Select the option in which the numbers shares the same relationship in set (+2, -0.5) as that shared by the numbers in the given set. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(6, 36, 108)

(7, 49, 147)

- a. (8, 64, 96)
- b. (8, 32, 64)
- c. (4, 16, 48)
- d. (4, 16, 64)

14. Words given on the left side of (::) are related with each other by some Logic/Rule /Relation. Select the missing word/word pair on the right side of (::) from the given alternatives based on the same Logic/Rule/Relation (+2, -0.5)

Arena : Wrestling :: ?

- a. Pitch : Exercise
- b. Athletics : Stadium
- c. Tennis : Court
- d. Rink : Skating

15. In the following question, select the missing number from the given series. (+2, -0.5)

729, 512, 343, 216, ?

- a. 36
- b. 125
- c. 25
- d. 64

16. In the following question, select the odd letter/letters from the given alternatives. (+2, -0.5)

- a. IHEW
- b. ONKP
- c. EDAZ

d. YXUF

17. In a certain code language, 'TALE' is coded as '7234', 'TOLK' is coded as '9172', 'KITE' is coded as '1283', 'SEAN' is coded as '3064'. What is the code for 'SON' in that code language? (+2, -0.5)

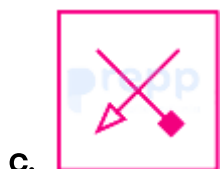
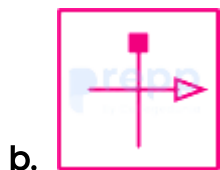
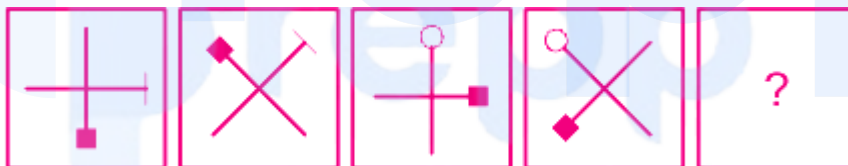
a. 906

b. 916

c. 896

d. 914

18. Select the figure from the given options that can replace the question mark (?) in the following series. (+2, -0.5)





d.

19. Select the option that is related to the third number in the same way as the first number is related to the second number and the fifth number is related to the sixth number. (+2, -0.5)

391 : 626 :: 426 : ? :: 173 : 408

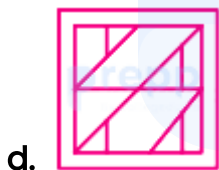
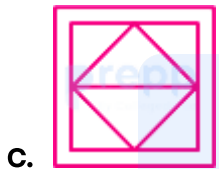
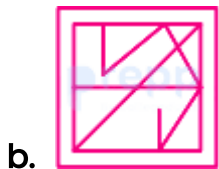
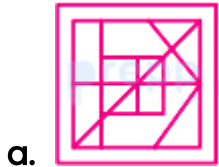
- a. 711
- b. 661
- c. 701
- d. 681

20. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+2, -0.5)

p _ nj _ c _ r _ jlcp _ njl _ pr _ _ lc

- a. rlpnrcnj
- b. rppnrcnj
- c. rllnrcnj
- d. rlprncnj

21. Select the option figure in which the given figure is embedded. (rotation is NOT allowed) (+2, -0.5)



Your Personal Exams Guide

22. Pointing towards a man, Parkhi said, "He is the brother of my son's mother". How that man is related to Parkhi's husband? (+2, -0.5)

- a. Son
- b. Maternal Uncle
- c. Nephew
- d. Brother in law

23. After arranging the given words according to dictionary order, which word will come at 'Fifth' position? (+2, -0.5)

1. Superstition
2. Superintend
3. Supervene
4. Supervise
5. Superpose

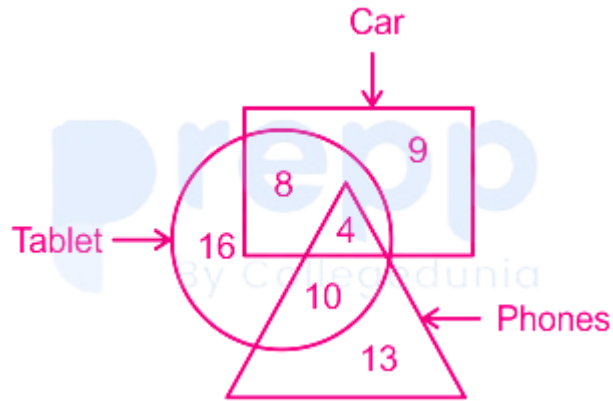
- a. Superstition
- b. Supervene
- c. Supervise
- d. Superintend

24. Select the option that is related to the third word on the same basis as the second word is related to the first word. (+2, -0.5)

Tokyo : Japan :: Paris : ?

- a. Ireland
- b. France
- c. Italy
- d. Switzerland

25. How many tablet are only car? (+2, -0.5)



- a. 4
- b. 12
- c. 8
- d. 17

prepp

Your Personal Exams Guide

General Awareness

26. Which of the following statements is NOT correct regarding the rabi crops? (+2, -0.5)
- a. Southern and southeastern states are important for the production of wheat and other rabi crops.
 - b. These crops are harvested in summer from April to June.
 - c. Some of the important rabi crops are wheat, barley, peas, gram and mustard.
 - d. Rabi crops are sown in winter from October to December.
-
27. Which of the following pairs is correct regarding the East India Company army? (+2, -0.5)
- I. Sawar – Men on horses
 - II. Musket – A heavy gun used by infantry soldiers
- a. Only I
 - b. Only II
 - c. Both I and II
 - d. Neither I nor II
-
28. Which of the following is related to the concurrent list of the seventh schedule of the Indian constitution? (+2, -0.5)
- a. Taxes on agricultural income

- b.** Tolls
 - c.** Factories
 - d.** Taxes on income other than agricultural income.
-

29. As on 1st November 2022, who is the chairperson of SEBI's Market Data Advisory Committee (MDAC)? **(+2, -0.5)**

- a.** Suresh N Patel
 - b.** M.S. Sahoo
 - c.** K.V. Kamath
 - d.** Ajay Tyagi
-

30. An isotope of which of the following is used in the treatment of cancer? **(+2, -0.5)**

- a.** Cobalt
 - b.** Aluminium
 - c.** Nickel
 - d.** Iron
-

31. How many non-major (minor) ports are there in India as on 31st October 2022? **(+2, -0.5)**

- a.** 154
- b.** 168

c. 200

d. 246

32. Who won the best actress award in the NEXA International Indian Film Academy Awards 2022? (+2, -0.5)

a. Kriti Sanon

b. Jhanvi Kapoor

c. Alia Bhatt

d. Deepika Padukone

33. Indian Army's 1st women combat aviator is _____. (+2, -0.5)

a. Punita Arora

b. Divya Ajit Kumar

c. Abhilasha Barak

d. Priya Semwal

34. Raja Parba, also known as Mithuna Sankranti, is a _____ -day-long festival of womanhood celebrated in Odisha, India. (+2, -0.5)

a. five

b. six

c. four

d. three

e. two

f. one

g. zero

h. none

i. all of the above

j. none of the above

k. all of the above

l. none of the above

m. all of the above

n. none of the above

o. all of the above

p. none of the above

q. all of the above

r. none of the above

s. all of the above

t. none of the above

u. all of the above

v. none of the above

w. all of the above

x. none of the above

y. all of the above

z. none of the above

aa. all of the above

ab. none of the above

ac. all of the above

ad. none of the above

ae. all of the above

af. none of the above

ag. all of the above

ah. none of the above

ai. all of the above

aj. none of the above

ak. all of the above

al. none of the above

am. all of the above

an. none of the above

ao. all of the above

ap. none of the above

aq. all of the above

ar. none of the above

as. all of the above

at. none of the above

au. all of the above

av. none of the above

aw. all of the above

ax. none of the above

ay. all of the above

az. none of the above

ba. all of the above

bb. none of the above

bc. all of the above

bd. none of the above

be. all of the above

bf. none of the above

bg. all of the above

bh. none of the above

bi. all of the above

bj. none of the above

bk. all of the above

bl. none of the above

bm. all of the above

bn. none of the above

bo. all of the above

bp. none of the above

bq. all of the above

br. none of the above

bs. all of the above

bt. none of the above

bu. all of the above

bv. none of the above

bw. all of the above

bx. none of the above

by. all of the above

bz. none of the above

ca. all of the above

cb. none of the above

cc. all of the above

cd. none of the above

ce. all of the above

cf. none of the above

cg. all of the above

ch. none of the above

ci. all of the above

cj. none of the above

ck. all of the above

cl. none of the above

cm. all of the above

cn. none of the above

co. all of the above

cp. none of the above

cq. all of the above

cr. none of the above

cs. all of the above

ct. none of the above

cu. all of the above

cv. none of the above

cw. all of the above

cx. none of the above

cy. all of the above

cz. none of the above

da. all of the above

db. none of the above

dc. all of the above

dd. none of the above

de. all of the above

df. none of the above

dg. all of the above

dh. none of the above

di. all of the above

dj. none of the above

dk. all of the above

dl. none of the above

dm. all of the above

dn. none of the above

do. all of the above

dp. none of the above

dq. all of the above

dr. none of the above

ds. all of the above

dt. none of the above

du. all of the above

dv. none of the above

dw. all of the above

dx. none of the above

dy. all of the above

dz. none of the above

ea. all of the above

eb. none of the above

ec. all of the above

ed. none of the above

ee. all of the above

ef. none of the above

eg. all of the above

eh. none of the above

ei. all of the above

ej. none of the above

ek. all of the above

el. none of the above

em. all of the above

en. none of the above

eo. all of the above

ep. none of the above

eq. all of the above

er. none of the above

es. all of the above

et. none of the above

eu. all of the above

ev. none of the above

ew. all of the above

ex. none of the above

ey. all of the above

ez. none of the above

fa. all of the above

fb. none of the above

fc. all of the above

fd. none of the above

fe. all of the above

ff. none of the above

fg. all of the above

fh. none of the above

fi. all of the above

fj. none of the above

fk. all of the above

fl. none of the above

fm. all of the above

fn. none of the above

fo. all of the above

fp. none of the above

fq. all of the above

fr. none of the above

fs. all of the above

ft. none of the above

fu. all of the above

fv. none of the above

fw. all of the above

fx. none of the above

fy. all of the above

fz. none of the above

ga. all of the above

gb. none of the above

gc. all of the above

gd. none of the above

ge. all of the above

gf. none of the above

gg. all of the above

gh. none of the above

gi. all of the above

gj. none of the above

gk. all of the above

gl. none of the above

gm. all of the above

gn. none of the above

go. all of the above

gp. none of the above

gq. all of the above

gr. none of the above

gs. all of the above

gt. none of the above

gu. all of the above

gv. none of the above

gw. all of the above

gx. none of the above

gy. all of the above

gz. none of the above

ha. all of the above

hb. none of the above

hc. all of the above

hd. none of the above

he. all of the above

hf. none of the above

hg. all of the above

hh. none of the above

hi. all of the above

hj. none of the above

hk. all of the above

hl. none of the above

hm. all of the above

hn. none of the above

ho. all of the above

hp. none of the above

hq. all of the above

hr. none of the above

hs. all of the above

ht. none of the above

hu. all of the above

hv. none of the above

hw. all of the above

hx. none of the above

hy. all of the above

hz. none of the above

ia. all of the above

ib. none of the above

ic. all of the above

id. none of the above

ie. all of the above

if. none of the above

ig. all of the above

ih. none of the above

ii. all of the above

ij. none of the above

ik. all of the above

il. none of the above

im. all of the above

in. none of the above

io. all of the above

ip. none of the above

iq. all of the above

ir. none of the above

is. all of the above

it. none of the above

iu. all of the above

iv. none of the above

iw. all of the above

ix. none of the above

iy. all of the above

iz. none of the above

ja. all of the above

jb. none of the above

jc. all of the above

jd. none of the above

je. all of the above

jf. none of the above

jj. all of the above

jh. none of the above

ji. all of the above

jj. none of the above

jk. all of the above

jl. none of the above

jm. all of the above

jn. none of the above

jo. all of the above

jp. none of the above

jq. all of the above

jr. none of the above

js. all of the above

jt. none of the above

ju. all of the above

jv. none of the above

jw. all of the above

jx. none of the above

gy. all of the above

gz. none of the above

ka. all of the above

kb. none of the above

kc. all of the above

kd. none of the above

ke. all of the above

kf. none of the above

kg. all of the above

kh. none of the above

d. three

35. Which of the following statement is correct regarding inertia? (+2, -0.5)

I. Inertia is the natural tendency of an object to resist a change in its state of motion or of rest.

II. The mass of an object is a measure of its inertia.

a. Only I

b. Neither I nor II

c. Only II

d. Both I and II

36. How many gold medals did Maharashtra win in the fourth edition of Khelo India Youth Games? (+2, -0.5)

a. 41

b. 38

c. 54

d. 45

37. Which of the following is NOT a part of western coastal plains? (+2, -0.5)

a. Konkan

b. Coromandel Coast

- c. Kannada Plain
 - d. Malabar coast
-

38. Pick the odd one out in Central Processing Unit (CPU) of a computer. (+2, -0.5)

- a. ALU and Control Unit both
 - b. Control Unit
 - c. ALU (Arithmetic Logic Unit)
 - d. Output Unit
-

39. _____ diseases last for only shorter periods of time. (+2, -0.5)

- a. Hereditary
 - b. Chronic
 - c. Acute
 - d. Genetic
-

40. In which year was the Insurance Regulatory and Development Authority of India set up? (+2, -0.5)

- a. 1999
- b. 2011
- c. 1995
- d. 2002

41. Which of the following is the largest freshwater lake in India? (+2, -0.5)

- a. Barapani
- b. Wular
- c. Bhimtal
- d. Loktak

42. LTE technology is used in which of the following generation of wireless technologies? (+2, -0.5)

- a. 3G
- b. 2G
- c. 4G
- d. 1G

43. Macroeconomics deals with which of the following studies? (+2, -0.5)

- I. Reasons behind the unemployment of resources
- II. Determination of total output

- a. Only I
 - b. Only II
 - c. Neither I nor II
 - d. Both I and II
-

44. Indian cricket team lost 2021 ICC World Test Championship Final to which country? (+2, -0.5)

- a. New Zealand
- b. Australia
- c. England
- d. Pakistan

45. '281 and beyond' is the autobiography of which veteran cricketer? (+2, -0.5)

- a. Kapil Dev
- b. VVS Laxman
- c. Sourav Ganguly
- d. Ajinkya Rahane

46. In which year was the Citizenship Act passed in India? (+2, -0.5)

- a. 1951
- b. 1955
- c. 1959
- d. 1964

47. _____ is an Act of the Parliament of the United Kingdom that partitioned British India into two new independent dominions of India and (+2, -0.5)

Pakistan in 1947.

- a. Rowlatt Act
 - b. Indian Independence Act
 - c. Government of India Act
 - d. Pitt's India Act
-

48. Who won the women's singles title in Australian Open 2022? (+2, -0.5)

- a. Ashley Barty
 - b. Elena Rybakina
 - c. Ons Jabeur
 - d. Serena Williams
-

49. Birju Maharaj was a noted dancer of _____. (+2, -0.5)

- a. Bharatnatyam
 - b. Manipuri
 - c. Kathak
 - d. Sattriya
-

50. Who among the following was famously known as the "The parrot of India"? (+2, -0.5)

- a. Amir Khusro

- b.** Lata Mangeskar
- c.** Pandit Ravishankar
- d.** Kalidas

Prepp

Your Personal Exams Guide

Quantitative Aptitude

51. Rajiv sells a pen at a profit of 5 percent. If he sells the pen for Rs. 36 more, then he earns a profit of 14 percent. What is the cost price of the pen? (+2, -0.5)

- a. Rs. 600
- b. Rs. 300
- c. Rs. 500
- d. Rs. 400

52. What is the value of $\tan 10^\circ \cdot \tan 25^\circ \cdot \tan 45^\circ \cdot \tan 65^\circ \cdot \tan 80^\circ$ (+2, -0.5)

- a. 0
- b. 2
- c. 1
- d. $\sqrt{3}$

53. If $x^4 + \frac{1}{x^4} = 16$, then what is the value of $x^2 + \frac{1}{x^2}$? (+2, -0.5)

- a. $4\sqrt{2}$
- b. $3\sqrt{2}$
- c. $2\sqrt{2}$
- d. $5\sqrt{2}$

54. The table given below shows the cost price and value of profit of 6 articles.

(+2, -0.5)

Articles	Cost Price	Profit
A	300	50
B	250	25
C	150	100
D	200	150
E	100	75
F	350	125

J1 = The value of average cost price of A, B, C and D.

J2 = The total profit of all articles.

What is the value of (J1 : J2)?

a. 9 : 7

b. 7 : 3

c. 3 : 11

d. 3 : 7

55. Piyush marks the price of his article 30 percent more than its cost price. If he sells the article for Rs. 5720 after allowing a discount of 20 percent, then what will be the cost price of the article?

(+2, -0.5)

a. Rs. 5000

b. Rs. 5350

c. Rs. 5200

d. Rs. 5500

56. Parallel sides of a trapezium are 21 cm and 14 cm and its area is 875 cm^2 . (+2, -0.5)
What is the distance between parallel sides?

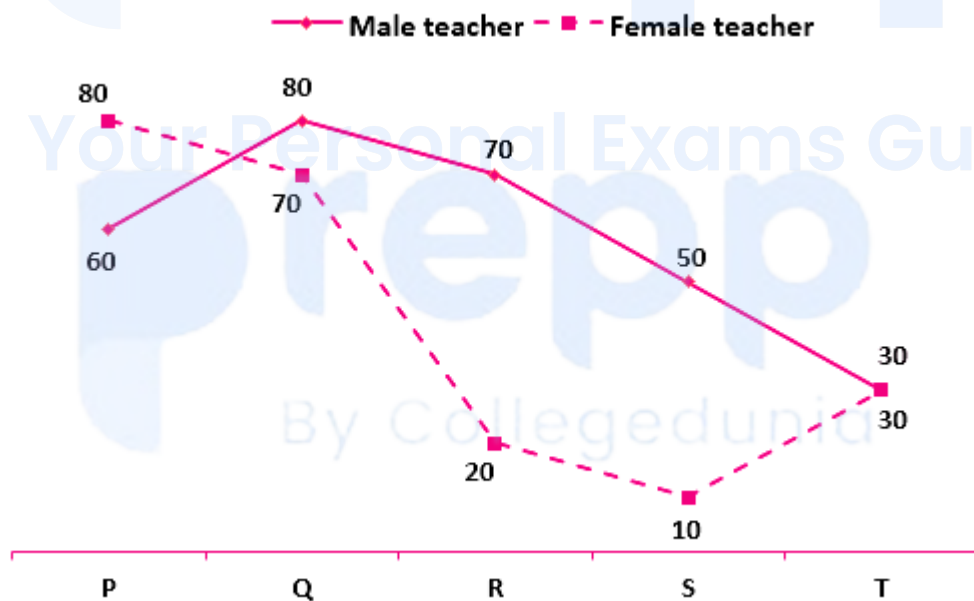
a. 45 cm

b. 50 cm

c. 60 cm

d. 65 cm

57. The line chart given below shows the number of male teachers and female teachers in 5 schools. (+2, -0.5)
female teachers in 5 schools.



J1 = Total number of male and female teachers in school P.

J2 = The difference between the total number of male and the total number of female teachers in all the 5 schools.

What is the value of (J1 : J2)?

- a. 4 : 7
- b. 9 : 7
- c. 5 : 7
- d. 7 : 4

58. What is the value of $\frac{7 \text{ of } 14 \div 4}{5 \times 4 \div 2} + \frac{6 \div 12 \times 3}{5 \div 25 \times 2} + \frac{15 \div 5 \times 6}{5 \times 15 \div 6}$? (+2, -0.5)

- a. 7.64
- b. 7.44
- c. 7.62
- d. 7.22

Your Personal Exams Guide

59. The ratio of the present age of two girls is 3 : 4. After two year the ratio will be 7 : 9. Which of the following statement(s) is/are correct? (+2, -0.5)

- I. Ratio of their ages after 10 year is 6 : 7.
- II. Ratio of their ages after 12 years is 6 : 7.

- a. Only II
- b. Neither I nor II
- c. Both I and II

d. Only I

60. ABCD is a cyclic quadrilateral in which angle B is opposite to angle D. If $\angle B = x + 10$ degree and $\angle D = 2x + 35$ degree, then what is the value of x? (+2, -0.5)

a. 35 degree

b. 40 degree

c. 50 degree

d. 45 degree

61. P's income is 250 percent of Q's income and P's expenditure is 180 percent of Q's expenditure. If P's income is 400 percent of Q's expenditure, then what is the respective ratio of P's savings and Q's savings? (+2, -0.5)

a. 8 : 3

b. 11 : 3

c. 11 : 5

d. 5 : 2

62. If $\sin \theta = \frac{5}{13}$, then what is the value of $\frac{\cos^2 \theta - \sin^2 \theta}{2 \cos \theta \cdot \sin \theta}$? (+2, -0.5)

a. 115/126

b. 113/120

c. 117/136

d. 119/120

63. The perimeter of an isosceles triangle is 91 cm. If one of the equal sides measures 28 cm, then what is the value of the other non-equal side? (+2, -0.5)

- a. 56 cm
- b. 42 cm
- c. 14 cm
- d. 35 cm

64. What is the average of all prime numbers between 30 and 50? (+2, -0.5)

- a. 38.5
- b. 39.8
- c. 34.2
- d. 36.5

65. In $\triangle XYZ$, I is the incentre of the $\triangle XYZ$. If $\angle XYZ = 40$ degree, then what is the value of $\angle XIZ$? (+2, -0.5)

- a. 115 degree
 - b. 110 degree
 - c. 120 degree
 - d. 130 degree
-

66. The sides of a triangle are 9 cm, 6 cm, and 5 cm. What is the value of the circumradius of this triangle? (+2, -0.5)

- a. $\frac{9\sqrt{3}}{4}$ cm
- b. $\frac{9\sqrt{3}}{5}$ cm
- c. $\frac{27\sqrt{2}}{8}$ cm
- d. $\frac{9\sqrt{2}}{2}$ cm

67. S does half as much work as T in $\frac{1}{8}$ of the time taken by T. If they together complete a work in 60 days, then how many days shall S alone take to complete that work? (+2, -0.5)

- a. 80 days
- b. 90 days
- c. 75 days
- d. 100 days

68. If $\sin \alpha = \frac{1}{2}$ and $\sin \beta = \frac{1}{2}$, then what is the value of $\cos (\alpha + \beta)$? (0 degree $< \alpha, \beta < 90$ degree) (+2, -0.5)

- a. $\frac{1}{4}$
- b. 1
- c. $\frac{\sqrt{3}}{2}$
- d. $\frac{1}{2}$

69. If $a + b + c = 1$, $ab + bc + ca = -1$ and $abc = -1$, then what is the value of $a^3 + b^3 + c^3$? (+2, -0.5)

- a. 3
- b. 5
- c. 2
- d. 1

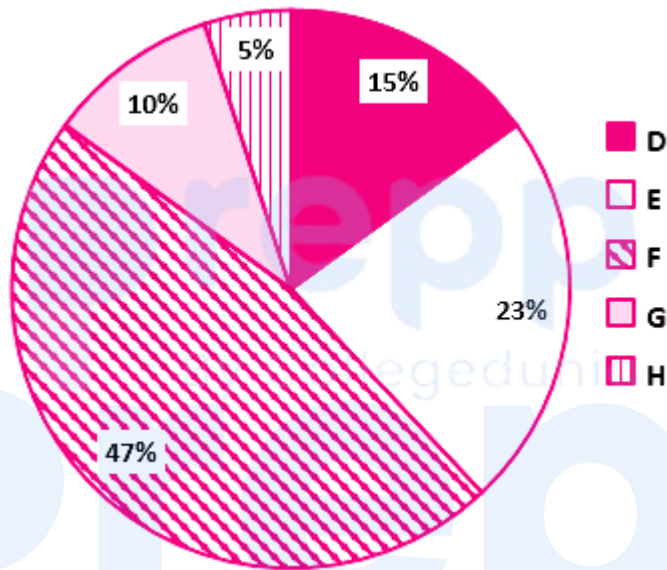
70. Initial value of a car is Rs. 20000. The value of car depreciated by 20 percent of its initial value each year. What will be its value after 3 years? (+2, -0.5)

- a. Rs. 10560
- b. Rs. 11980
- c. Rs. 9840
- d. Rs. 10240

71. What is the value of $(a + b)^3 - a^3 - b^3$? (+2, -0.5)

- a. $3ab(a - b)$
- b. $-3ab(a - b)$
- c. $3ab(a + b)$
- d. $-3ab(a + b)$

72. The pie chart given below show the runs scored by 5 batsman in a cricket match. Total runs scored by these batsman are 400. Runs scored by a batsman is shown as a percentage of runs scored by all these five batsman: (+2, -0.5)

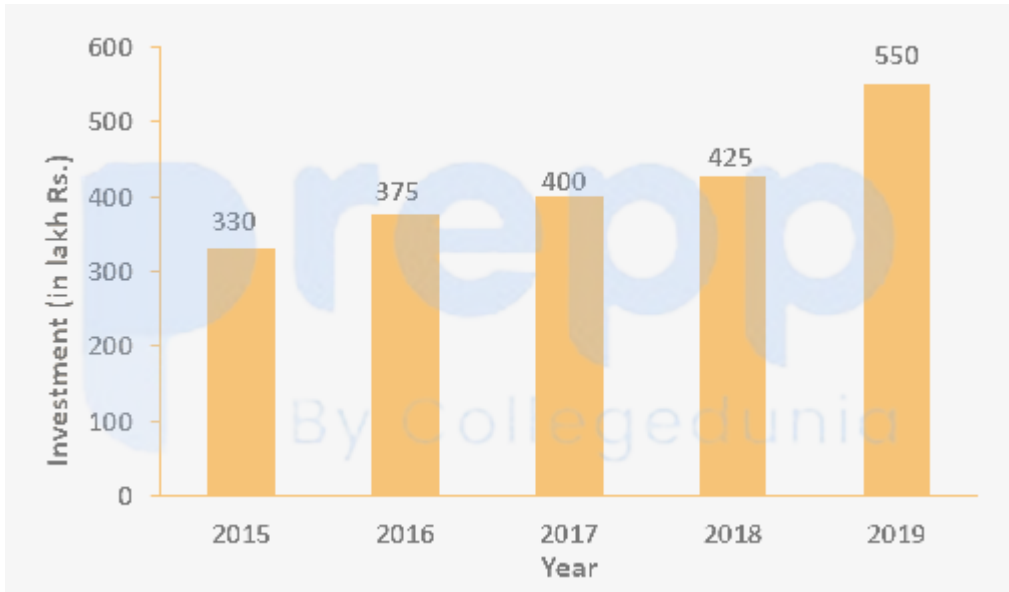


What is the ratio of runs scored by D to the runs scored by H?

- a. 1 : 5
- b. 4 : 1
- c. 1 : 3
- d. 3 : 1

73. The following bar graph shows the amount (in lakh Rs.) investment by a company in purchasing raw materials over the years 2015 to 2019. (+2, -0.5)

By how much percent the company increase its investment on raw materials in 2019, as compared to 2015?



- a. 33.33%
- b. 66.66%
- c. 11.66%
- d. 20%

74. Average of 8 values is 36. If 4 is subtracted from each of the first three values and 5 is added in the each of the next five values, then what will be the new average? (+2, -0.5)

- a. 34.325
- b. 36.350
- c. 38.325
- d. 37.625

75. Diameter of wheel of a cycle is 7 cm. A cyclist takes 75 minutes to reach a destination at the speed of 36.3 km/hr. How many revolutions will the wheel make during the journey? (+2, -0.5)
- a. 196280
 - b. 206250
 - c. 216580
 - d. 212520

Prepp

Your Personal Exams Guide

English Comprehension

76. Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'. (+2, -0.5)
- Our hands have been crucial tools for finding and eat food, and helping us navigate the world.

- a. tools for finding and eat food,
- b. Our hands have been crucial
- c. No error
- d. and helping us navigate the world.

77. Improve the underlined part of the sentence. Choose 'No improvement' as an answer if the sentence is grammatically correct. (+2, -0.5)
- I can hear the band which is playing patriotic tunes, in the playground.

- a. No improvement
- b. patriot tunes
- c. patriotic tuning
- d. patriotically tuned

78. Select the correct passive form of the given sentence. (+2, -0.5)
- The manager lost the letter.

- a. The letter was loss by the manager.

- b. The letter was loose by the manager.
- c. The letter was lost by the manager.
- d. The letter was lose by the manager.

79. Given below are four jumbled sentences. Pick the option that gives their correct order. (+2, -0.5)

P. The earliest years of a child's life are critical.

Q. This is why an establishment has been created for the protection of children in these crucial years, known as ECCE.

R. It is during the early years that children develop the cognitive, physical, social and emotional skills that they need to succeed in life.

S. These years determine child's survival and thriving in life, and lay the foundations for her/ his learning and holistic development.

- a. RSPQ
- b. PSRQ
- c. PSQR
- d. QPSR

80. Identify the segment in the sentence which contains a grammatical error. (+2, -0.5)
If there is no error, then select the option "No error".

A witness had seen a youth, / perhaps aged young as/ ten or eleven, acting suspiciously.

- a. No error

- b. A witness had seen a youth,
- c. perhaps aged young as
- d. ten or eleven, acting suspiciously.

81. Improve the underlined part of the sentence. Choose 'No improvement' as an answer if the sentence is grammatically correct. (+2, -0.5)

I won't bore you with the details, but I finally finish my taxes.

- a. No improvement
- b. finally finished
- c. final finishing
- d. finally finishing

82. Choose the word that is opposite in meaning to the given word. (+2, -0.5)

Inchoate

- a. Artless
- b. Refined
- c. Articulate
- d. Formless

83. Select the most appropriate one-word substitution for the given group of words. (+2, -0.5)

The violation or profanation of anything sacred or held sacred

- a. Pious
 - b. Sacramental
 - c. Holy
 - d. Sacrilege
-

84. Select the option that will improve the (bracketed) part of the sentence. In (+2, -0.5)
case of no improvement select the option 'No improvement'.

Check all radiators for (meagre leaks, special) round pipework connections.

- a. small leaks, especially
 - b. No improvement
 - c. modest leaks, specially
 - d. cramped leaks, specially
-

85. Fill in the blank with an appropriate option. (+2, -0.5)

David always kept his _____ open for anything that might put them at risk.

- a. black eye
 - b. starry eyes
 - c. eagle eyes
 - d. sheep eyes
-

86. Select the word that is closest in meaning (SYNONYM) to the word given below. (+2, -0.5)

Attune

- a. Assimilate
 - b. Skew
 - c. Estrange
 - d. Disrupt
-

87. Select the wrongly spelt word (+2, -0.5)

- a. Innocuous
 - b. Ingenous
 - c. Inimical
 - d. Invulnerable
-

88. Select the most appropriate antonym of the given word. (+2, -0.5)

BABBLE

- a. DRIVEL
 - b. SENSE
 - c. JARGON
 - d. GIBBERISH
-

89. Rearrange the parts of the sentence in correct order. (+2, -0.5)

It could be

P. became a byword for superhuman intellectual ability

Q. argued that 1919 was the year when Einstein's name

R. making possible the small industry of

S. Einstein-themed merchandise that still exists today

a. QPRS

b. PSQR

c. RSPQ

d. PQRS

90. Select the most appropriate meaning of the given idiom. (+2, -0.5)

All bark and no bite

a. Someone who sticks to his words

b. Actions are stronger than mere words

c. Not being able to understand anything

d. Full of talk, but low on action

91. Choose the word that is opposite in meaning to the given word. (+2, -0.5)

Leisure

- a. Retire
- b. Worship
- c. Work
- d. Play

92. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase. (+2, -0.5)

Appeal to Caesar

- a. An authority given to a foolish person
- b. To expect good from a wrong person
- c. To live in a false reality
- d. Appeal to the highest possible authority

93. Select the most appropriate one-word substitution for the given group of words. (+2, -0.5)

One who is a centre of attraction

- a. Exposure
- b. Cynosure
- c. Commissure
- d. Censure

94. Choose the option that is the correct indirect form of the sentence. (+2, -0.5)

Rahul asked me, "Are we going to New York next year?"

- a. Rahul asked that are we going to New York next year.
- b. Rahul asked me that were we going to New York next year.
- c. Rahul asked me that would we go to New York next year?
- d. Rahul asked me if we were going to New York next year.

95. Select the wrongly spelt word (+2, -0.5)

- a. gauche
- b. fallacious
- c. erudite
- d. harange

96. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

Data 1. _____ the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety

percent carbon dioxide, compared to less than four percent in that of the
5. _____.

Select the most appropriate option to fill in the blank No. 1.

- a. on
- b. across
- c. from
- d. through

97. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

Data 1. _____ the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the
5. _____.

Select the most appropriate option to fill in the blank No. 2.

- a. due
- b. understood
- c. because
- d. cause

98. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

Data 1. _____ the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the 5. _____.

Select the most appropriate option to fill in the blank No. 3.

- a. affect
- b. displacement
- c. contour
- d. effect

99. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

Data 1. _____ the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the

atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the

5. _____.

Select the most appropriate option to fill in the blank No. 4.

- a. surface
- b. walls
- c. atmosphere
- d. core

100. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

Data 1. _____ the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the

5. _____.

Select the most appropriate option to fill in the blank No. 5.

- a. Pluto
- b. Mars

c. Earth

d. Mercury

Prepp

Your Personal Exams Guide

Answers

1. Answer: c

Explanation:

The logic followed here is:

Logic: $(\text{First number})^2 - (\text{Second number})^2 = \text{Third number}$

- $(15, 13, 56) \rightarrow 15^2 - 13^2 = 225 - 169 = 56$
- $(17, 11, 168) \rightarrow 17^2 - 11^2 = 289 - 121 = 168$

Similarly,

- $(20, 14, 204) \rightarrow 20^2 - 14^2 = 400 - 196 = 204$

Hence, '**(20, 14, 204)**' is the correct answer.

2. Answer: a

Explanation:

The logic followed here is:

- $132 \text{ F } 624 = 657 \rightarrow 132 + 624 = 756$
 - 756 when written from right to left, gives the number 657
- $84 \text{ F } 321 = 504 \rightarrow 84 + 321 = 405$
 - 405 when written from right to left, gives the number 504

Similarly,

- $168 \text{ F } 27 = ? \rightarrow 168 + 27 = 195$
 - 195 when written from right to left, gives the number 591

Hence, '**591**' is the correct answer.

3. Answer: c

Explanation:

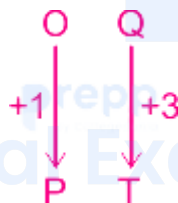
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:

Logic: 1 has been added in the first letter's positional value to get the corresponding first letter.

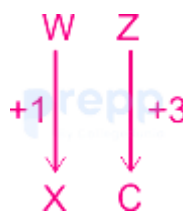
3 has been added in the second letter's positional value to get the corresponding second letter.

OQ: PT



Similarly,

WZ:?



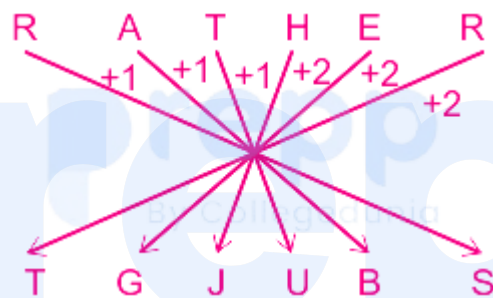
Hence, the correct answer is "XC".

4. Answer: d

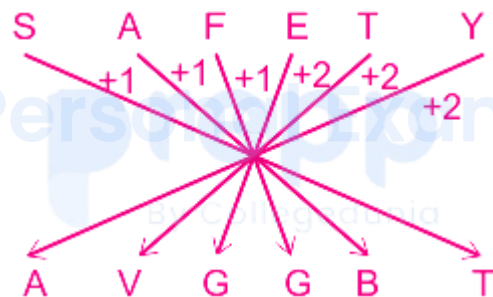
Explanation:

The logic followed here is:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N



Similarly,



Hence, 'AVGGBT' is the correct answer.

5. Answer: a

Explanation:

$$1. 7 \times 9 + 5 - 8 \div 4 = 42$$

After interchanging 5 and 9, we get:

$$7 \times 5 + 9 - 8 \div 4 = 42$$

$$\Rightarrow 35 + 9 - 2 = 42$$

$$\Rightarrow 44 - 2 = 42$$

$$\Rightarrow 42 = 42$$

$$\text{II. } 9 \times 3 + 5 \div 1 - 4 = 20$$

After interchanging 5 and 9, we get:

$$5 \times 3 + 9 \div 1 - 4 = 20$$

$$\Rightarrow 15 + 9 - 4 = 20$$

$$\Rightarrow 24 - 4 = 20$$

$$\Rightarrow 20 = 20$$

Hence, 'Both I and II' is the correct answer.

6. Answer: d

Explanation:

The logic followed here is:

Logic: First number $\times 3$ = Second number

$$1. 2278 - 6834 \rightarrow 2278 \times 3 = 6834$$

$$2. 3072 - 9216 \rightarrow 3072 \times 3 = 9216$$

$$3. 1008 - 3024 \rightarrow 1008 \times 3 = 3024$$

$$4. 3744 - 11322 \rightarrow 3744 \times 3 = 11232 \neq 11322$$

Hence, '3744 – 11322' is the correct answer.

7. Answer: c

Explanation:

The logic used here is:

Logic: The first word is a venue or location, and the second word is an activity or sports typically associated with that location.

Let's check each option as per the logic,

1) Court – Tennis:

→ Tennis is played in the court.

2) Gymnasium – Exercise:

→ Exercise is done in the Gymnasium.

3) Wrestling – Arena:

→ Wrestling is done in the Arena. But the order of the words is incorrect. ⇒ **Doesn't follow the logic.**

4) Pitch – Cricket:

→ Cricket is played on the pitch.

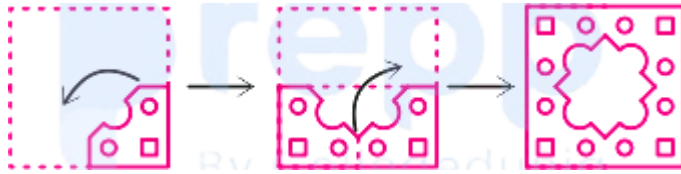
Here, we can see that only Option 3 doesn't follow the logic.

Hence, the correct answer is "**Wrestling – Arena**".

8. Answer: a

Explanation:

When the paper is unfolded, the image we get is shown below:



Hence, the correct answer is "Option 1".

9. Answer: b

Explanation:

The least possible Venn diagram is shown below:



Conclusions:

I. No T is R. → **Follows** (As, No R is T)

II. No S is T. → **Follows** (As, All S are R and No R is T)

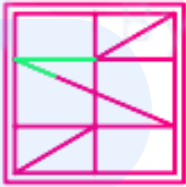
III. No R is S. → Does not follow (As, All S are R)

Hence, 'both conclusions I and II follows' is the correct answer.

10. Answer: b

Explanation:

The image embedded in given figure is as shown below:

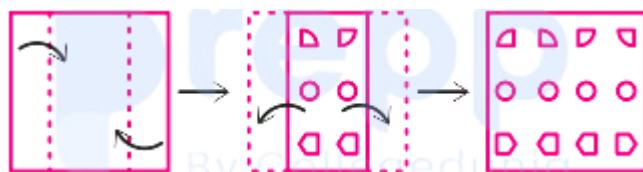
No.	Option	Question	Answer
1.			Not Embedded
2.			Embedded
3.			Not Embedded
4.			Not Embedded

Hence, 'option 2' is the correct answer.

11. Answer: c

Explanation:

When the paper is unfolded, the image we get is shown below,



Hence, the correct answer is "Option 3".

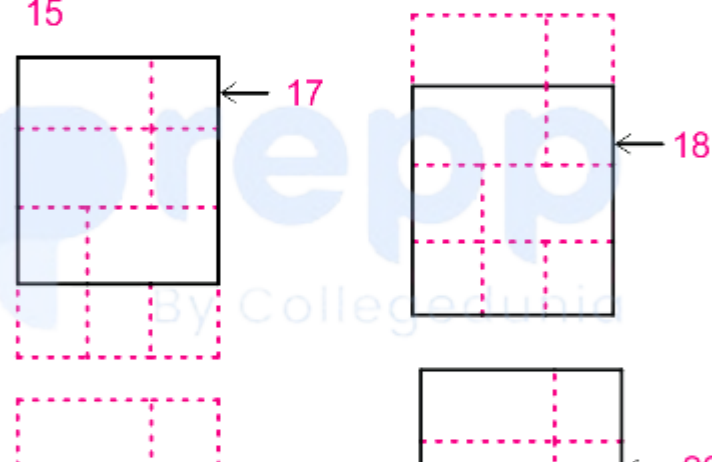
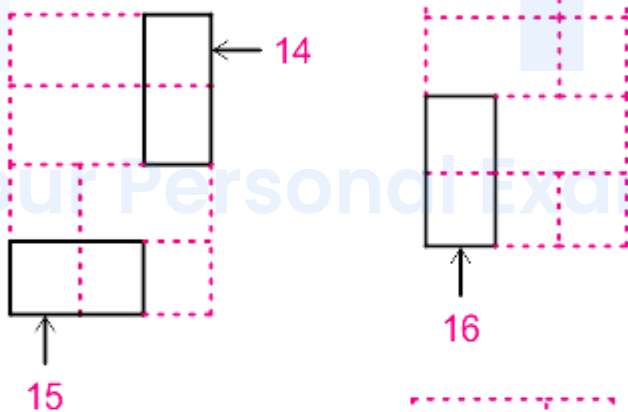
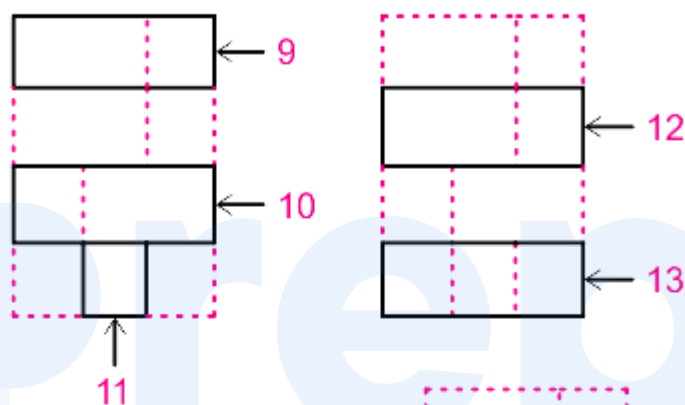
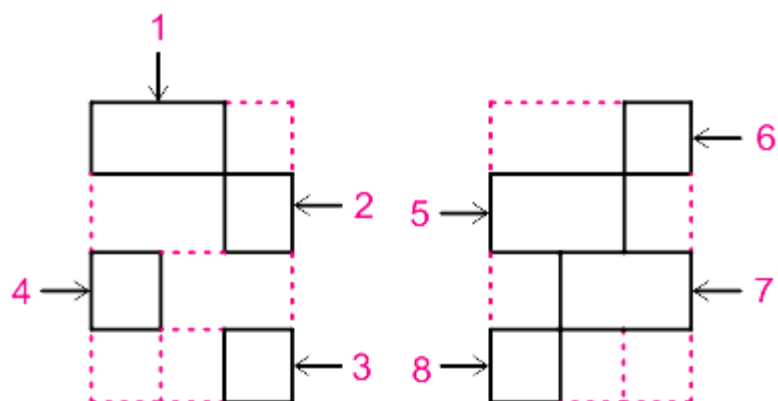
12. Answer: d

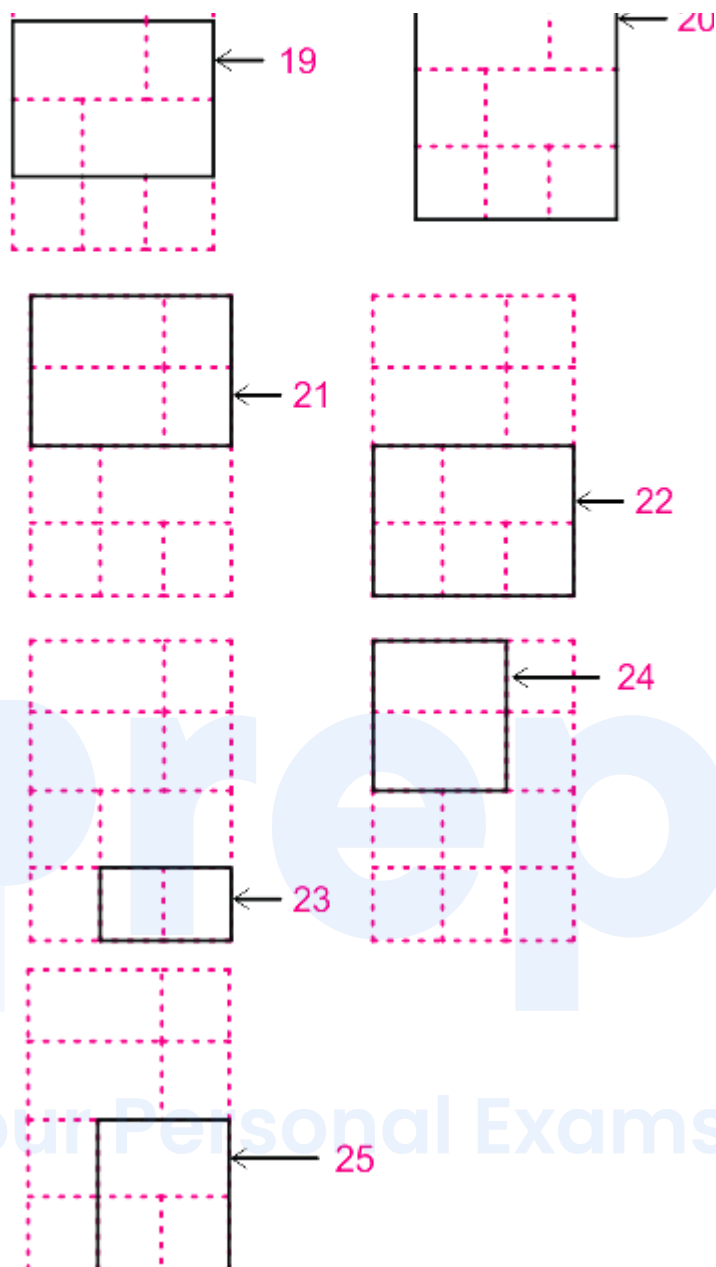
Explanation:

The number of quadrilaterals in the given figure is shown below:

prepp

Your Personal Exams Guide





Hence, '25' is the correct answer.

13. Answer: c

Explanation:

The logic followed here is:

Logic: **Second Number = (First Number)²**

Third Number = (Second Number × 3) 64

(6, 36, 108):

$$\rightarrow 36 = (6)^2$$

$$\rightarrow 108 = 36 \times 3$$

(7, 49, 147):

$$\rightarrow 49 = (7)^2$$

$$\rightarrow 147 = 49 \times 3$$

Let's check each option as per the logic,

1) (8, 64, 96):

$$\rightarrow 64 = (8)^2$$

$$\rightarrow 96 \neq 64 \times 3$$

2) (8, 32, 64):

$$\rightarrow 32 \neq (8)^2$$

3) (4, 16, 48):

$$\rightarrow 16 = (4)^2$$

$$\rightarrow 48 = 16 \times 3 \Rightarrow \text{Follow the logic.}$$

4) (4, 16, 64):

$$\rightarrow 16 = (4)^2$$

$$\rightarrow 64 \neq 16 \times 3$$

Here, we can see that only Option 3 follow the logic.

Hence, the correct answer is **"(4, 16, 48)"**.

14. Answer: d

Explanation:

The logic followed here is:

Logic: The pair "Arena : Wrestling" represents a place where an activity is performed, namely, wrestling is done in an arena.

Let's check each option as per the logic,

1) Pitch : Exercise

→ Pitch is associated with cricket, not specifically exercise.

2) Athletics : Stadium

→ The order is reversed, so this doesn't match.

3) Tennis : Court

→ The order is reversed, so this doesn't match.

4) Rink : Skating

→ Skating is done in a rink, so this matches the logic.

Here, we can see that only Option 4 follow the logic.

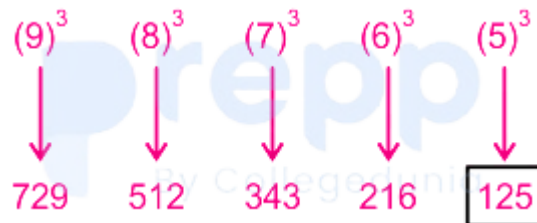
Hence, the correct answer is **"Rink : Skating"**.

15. Answer: b

Explanation:

The logic followed here is:

Logic: The terms are the cubes of the consecutive numbers starting from 9 in the reversed order.



Hence, the correct answer is "125".

16. Answer: a

Explanation:

The logic followed here is:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

1. IHEW $\rightarrow$ I - 1 = H; H - 3 = E; E $\Leftrightarrow$ V $\neq$ W

2. ONKP $\rightarrow$ O - 1 = N; N - 3 = K; K $\Leftrightarrow$ P

3. EDAZ $\rightarrow$ E - 1 = D; D - 3 = A; A $\Leftrightarrow$ Z

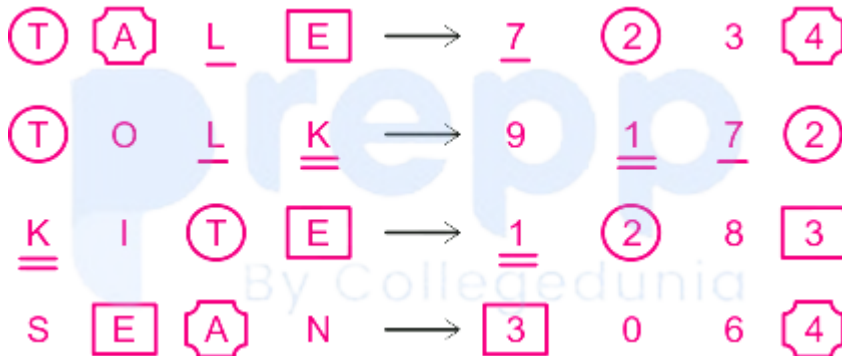
4. YXUF $\rightarrow$ Y - 1 = X; X - 3 = U; U $\Leftrightarrow$ F

Hence, 'IHEW' is the correct answer.

17. Answer: a

Explanation:

The code for each letter is shown below:



Code for:

O is 9

S and N is 0 or 6

Clearly, the code for SON is 906.

Hence, '906' is the correct answer.

18. Answer: d

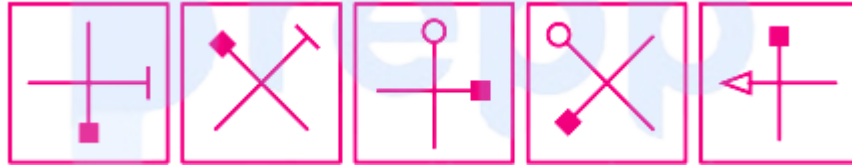
Explanation:

The logic followed here is:

Logic: The line with square box attached is rotating 135° in clockwise direction.

→ The figure attached with the other line is changing after two terms and rotating 45° in anti - clockwise direction.

The next term of the series:



Hence, the correct answer is "Option 4".

19. Answer: b

Explanation:

The logic followed here is:

Logic: First number + 235 = Second number

- $391 : 626 \rightarrow 391 + 235 = 626$
- $173 : 408 \rightarrow 173 + 235 = 408$

Similarly,

- $426 : ? \rightarrow 426 + 235 = 661$

Hence, '661' is the correct answer.

20. Answer: a

Explanation:

Given sequence: p _ nj _ c _ r _ jlcp _ njl _ pr _ _ lc

1. rlpnrcnj $\rightarrow$ p r nj l c / p r n jlc / p r njl c / pr nj lc

2. rppnrcnj $\rightarrow$ p r nj p c / p r n jlc / p r njl c / pr nj lc

3. rllnrcnj $\rightarrow$ p r nj l c / l r n jlc / p r njl c / pr nj lc

4. rlpnrcnj $\rightarrow$ p r nj l c / p r r jlc / p n njl c / pr nj lc

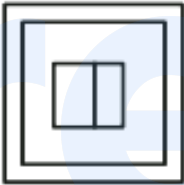
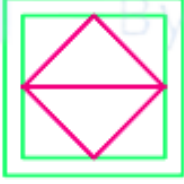
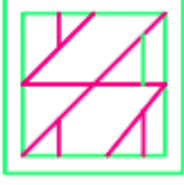
- In option 1, 'prnjlc' is repeated.

Hence, 'rlpnrncnj' is the correct answer.

21. Answer: a

Explanation:

The image embedded in given figure is as shown below:

No.	Option	Question	Answer
1.			Embedded
2.			Not Embedded
3.			Not Embedded
4.			Not Embedded

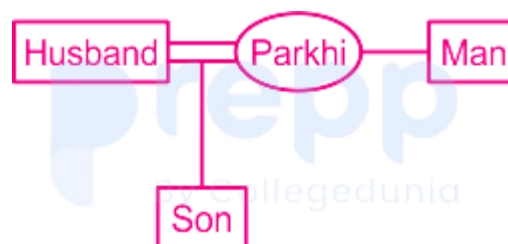
Hence, 'option 1' is the correct answer.

22. Answer: d

Explanation:

By using the symbols in the table given below, we can draw the following family tree:

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married Couple
—	Siblings
	Difference of a Generation



Pointing towards a man, Parkhi said, "He is the brother of my son's mother" → My son's mother is Parkhi herself.

brother of my son's mother → The man is brother of Parkhi.

Clearly, Husband of Parkhi is brother-in-law of the man.

Hence, '**Brother in law**' is the correct answer.

23. Answer: c

Explanation:

The correct order as per the dictionary is:

2) Superintend

5) Superpose

1) Superstition

3) Supervene

4) Supervise

Here, we can see that the word at the fifth position is Supervise.

Hence, the correct answer is "**Supervise**".

24. Answer: b

Explanation:

The logic followed here is:

Logic: **The first word is the capital city of the second word which is a country.**

Tokyo : Japan

→ Tokyo is the capital city of Japan.

Similarly,

Paris : ?

→ Paris is the capital city of France.

Hence, the correct answer is **"France"**.

Capital of other Countries mentioned are as follows:

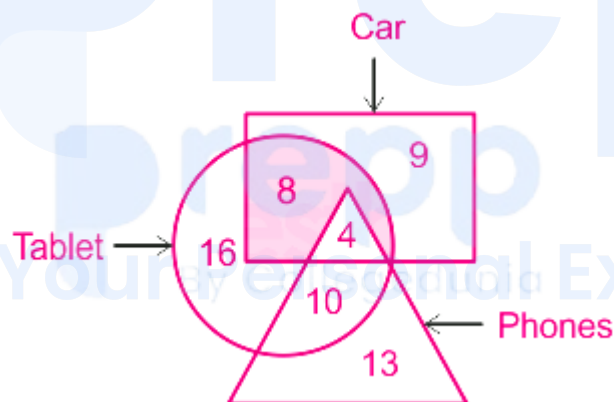
★ Additional Information

- Ireland – Dublin
- Italy – Rome
- Switzerland – Bern

25. Answer: c

Explanation:

Number of tablets that are only car is shown below:



Hence, '8' is the correct answer.

26. Answer: a

Explanation:

The correct answer is Southern and southeastern states are important for the production of wheat and other rabi crops.

★ Key Points

- Punjab, Haryana, Uttar Pradesh, and Madhya Pradesh, are major contributors to the production of **wheat, barley, and other rabi crops**. *Hence Option 1 is incorrect.*
- These regions have **favorable climatic conditions and fertile soil**, making them suitable for the cultivation of rabi crops.
- **Wheat is one of the most important rabi crops** grown in these states, and they significantly contribute to the overall wheat production in the country.
- Other rabi crops like barley, peas, gram, and mustard are also cultivated in these regions.

★ Additional Information

- **Kharif crops**
 - Kharif Crops are **planted at the onset of the South-West monsoon**, primarily in **India, Pakistan, and Bangladesh**, during the rainy season.
 - The sowing of these crops takes place between the months of **June and July**.
 - Upon reaching maturity, typically in October, these crops are **harvested in the Autumn season**.
 - Examples of Kharif crops include **rice, cotton, corn, sugarcane, turmeric, pigeon pea, and more**.
- **Zaid crops**
 - Zaid Crops are **grown during the summer season** in regions with a **tropical climate**.
 - These crops are typically **cultivated between the months of March and June**.
 - Zaid crops are known for their **quick growth and shorter duration** compared to Kharif and Rabi crops.
 - Examples of Zaid crops include **cucumber, watermelon, bitter gourd, maize, and cowpea**.
 - These crops are often irrigated using modern techniques and are harvested before the onset of the monsoon season.

27. Answer: c

Explanation:

The correct answer is Both I and II.

★ Key Points

- "Sawar" refers to a cavalry **soldier mounted on a horse.**
- The East India Company army did have cavalry units composed of soldiers on horseback. *Hence Statement I is correct.*
- The musket was a **widely used firearm** during the time of the East India Company.
- It was a **heavy gun** typically carried and operated by infantry soldiers. *Hence Statement II is also correct.*

★ Additional Information

- The East India Company was an **English**, and later British, **joint-stock company** founded in 1600.
- It was formed to **trade in the Indian Ocean region**, initially with the East Indies, and later with **East Asia.**
- In 1600, a group of English businessmen asked **Elizabeth I** for a royal charter that would let their voyage to the East Indies on behalf of the crown in exchange for a **monopoly on trade.**
- The merchants put up nearly **70,000 pounds** of their own money to finance the venture, and the **East India Company was born.**

28. Answer: c

Explanation:

The correct answer is Factories.

★ Key Points

- The seventh schedule of the Indian constitution deals with the division of powers between the central government and the state governments through three lists: **the Union List, the State List, and the Concurrent List.**
- The Concurrent List consists of subjects on which **both the central government and state governments have the power to legislate**, such as **criminal law, marriage and divorce, bankruptcy and insolvency, factories, education, forests, and more.** *Hence option c is correct.*
- Both the central and state governments can make laws, regulate, and govern the subjects mentioned in the Concurrent List simultaneously, subject to certain limitations and guidelines.
- In case of a **conflict between central and state laws** on Concurrent List subjects, **the law made by the central government prevails**, provided it receives the President's assent.
- Any **amendment to the Concurrent List** requires the **approval of the Parliament, and state legislatures** can also make laws on these subjects unless they conflict with existing central laws.

★ Additional Information

- **Union List:**
 - The Union List consists of around **100 items** over which the central government has exclusive legislative authority, including **defence, foreign affairs, atomic energy, banking, and telecommunications.**
 - The **central government** has the **power to make laws, regulate, and govern** the subjects mentioned in the Union List uniformly across all states and union territories in India.
 - Items in the Union List ensure the central government's authority in critical areas such as **national security, inter-state trade and commerce, currency, copyright, air and water pollution, and more.**
 - Any **amendment to the Union List** requires the **approval of the Parliament** through a prescribed legislative process, ensuring that changes to these subjects are made at the national level.
- **State List:**
 - The State List consists of subjects over which state governments have exclusive legislative authority, including **public order, police, public health, local government, agriculture, state taxation, and more.**

- State governments exercise their **legislative and executive powers** to make laws, regulate, and govern the subjects mentioned in the State List within their respective states.
- Subjects in the State List allow state governments to address regional and local concerns, implement policies specific to their states, and ensure effective governance at the state level.
- Any **amendment to the State List** requires the **approval of the state legislature** concerned and does not require the consent of the Parliament, providing states with autonomy in making changes to these subjects.

29. Answer: b

Explanation:

The correct answer is M.S. Sahoo.

★ Key Points

- As on **1st November 2022**, the chairperson of **SEBI's Market Data Advisory Committee (MDAC)** was **M S Sahoo**,
- He is the **professor** at **National Law University, Delhi** and **former chairperson of Insolvency and Bankruptcy Board of India (IBBI)**.
- MDAC stands for **Market Data Advisory Committee**.
- It is a standing committee constituted by SEBI to recommend appropriate policy for access to **securities market data**, **identify segment-wise data perimeters**, **data needs and gaps**, and **recommend data privacy and data access regulations** applicable to market data.

★ Additional Information

SEBI

- SEBI stands for **Securities and Exchange Board of India**.
- The **headquarters** of SEBI is situated in **Mumbai**. The **regional offices** of SEBI are located in **Ahmedabad, Kolkata, Chennai, and Delhi**.

- It is a statutory regulatory body established by the Government of India in **1992** to protect the interests of investors investing in securities and to regulate the securities market.
- SEBI also **regulates how the stock market and mutual funds function.**

30. Answer: a

Explanation:

The correct answer is Cobalt.

★ Key Points

- **Cobalt-60**, an **isotope of cobalt**, is commonly used in the **treatment of cancer**.
- It emits **high-energy gamma rays**, which can **penetrate tissues and destroy cancer cells**.
- Cobalt-60 has a relatively **long half-life of 5.27 years**, which means it remains radioactive for a significant period.
- This makes it **suitable for long-term treatment** and allows for the production and distribution of radioactive sources to medical facilities.

★ Additional Information

- **Aluminum**
 - Aluminum compounds are sometimes used in **antacids** to help **neutralize stomach acid and provide relief from heartburn or indigestion**.
 - Additionally, aluminum-based adjuvants are **commonly used in vaccines** to **enhance the body's immune response** to the vaccine.
- **Nickel**
 - It is sometimes used in **medical implants and devices**, such as **orthopedic implants or dental materials**.
 - However, it's important to note that some individuals may have an allergic reaction to nickel, so its use in medical devices is carefully considered.
- **Iron**

- It is an **essential mineral** for the human body and is involved in various physiological processes.
- **Iron supplements** are commonly prescribed to individuals with **iron deficiency or anemia**.
- Iron is necessary for the **production of red blood cells**, and supplements can help **restore iron levels** in the body.

31. Answer: c

Explanation:

The correct answer is 200.

★ Key Points

- India has **12 major ports** and **more than 200 notified minor and intermediate ports**.
- **Minor ports** are managed by the **state government** whereas Major ports are managed by the central government.
- Minor ports Handle **coastal and fishing trade**.

★ Additional Information

- **12 Major Ports** of India-
- There are 12 government ports and 1 corporate port.

Major Ports	State
Kolkata Port Trust	West Bengal
Paradip Port Trust	Odisha
Visakhapatnam Port Trust	Andhra Pradesh
Chennai Port Trust	Tamil Nadu
Tuticorin Port Trust	Tamil Nadu
Cochin Port Trust	Kerala
New Mangalore Port Trust	Karnataka
Mormugao Port Trust	Goa
Mumbai Port Trust	Maharashtra
Jawaharlal Nehru Port Trust	Maharashtra
Deendayal Port Trust	Gujarat
Ennore Port Trust	Tamil Nadu

32. Answer: a

Explanation:

The correct answer is Kriti Sanon.

★ Key Points

- **IIFA Awards:**
 - The NEXA IIFA Awards, also known as the **International Indian Film Academy Awards**, is an annual event that celebrates the achievements and excellence in **Indian cinema**.
 - The awards were initiated by the **International Indian Film Academy (IIFA)** in the year **2000**.

- The first NEXA IIFA Awards ceremony took place in London, United Kingdom, and was aimed at promoting Indian films internationally.
- The main award categories, the NEXA IIFA Awards also include special awards and recognition for various aspects of filmmaking, such as **Best Director, Best Actor, Best Actress, Best Music Director**, and many more.
- The NEXA IIFA Awards continue to evolve each year, with new themes, concepts, and innovations, contributing to the promotion and growth of Indian cinema worldwide.

★ Important Points

- **NEXA International Indian Film Academy Awards 2022:**
 - **Best Actor (Male):** Vicky Kaushal (Sardar Udham)
 - **Best Actor (Female):** Kriti Sanon (Mimi)
 - **Best Director:** Vishnuvaradhan (Shershaah)
 - **Best Film:** Shershaah
 - **Best Playback Singer Female:** Asees Kaur for 'Raataan Lambiyan', (Shershaah)
 - **Best Playback Singer Male:** Jubin Nautiyal for song 'Raataan Lambiyan', (Shershaah)
 - **Best Lyrics:** Kausar Munir for 'Lehra Do', 83
 - **Best Music Direction:** A R Rahman for Atrangi Re and Jasleen Royal, Javed-Mohsin, Vikram Montrose, B Praak, Jaani for Shershaah
 - **Best Male Debut:** Ahan Shetty (Tadap)
 - **Best Female Debut:** Sharvari Wagh (Bunty Aur Babli 2)
 - **Best Story Adapted:** Kabir Khan, Sanjay Puran Singh Chauhan for 83
 - **Best Original Story:** Ludo by Anurag Basu
 - **Best Supporting Actor Female:** Sai Tamhankar (Mimi)
 - **Best Supporting Actor Male:** Pankaj Tripathi (Ludo)

33. **Answer: c**

Explanation:

The correct answer is Abhilasha Barak.

★ Key Points

- **Captain Abhilasha Barak** has created history by becoming the **first woman officerto join the Army Aviation Corps as Combat Aviator**.
- Captain Barak's achievement has been described as a **"Golden Letter Day"** in the history of Indian Army Aviation.
- She was awarded the coveted wings along with **36 other army pilots** during a ceremony held at **the Combat Army Aviation Training School** in Nashik.
- Abhilasha Barak hails from **Haryana**, India.



★ Important Points

- India's 1st woman Rafale fighter jet pilot Shivangi Singh was part of the Indian Air Force tableau at the Republic Day Parade 2022.
- She is only the 2nd woman fighter jet pilot to be part of the **IAF tableau**.
- In 2021, Flight Lieutenant Bhawna Kanth became the first female fighter jet pilot to be part of the IAF tableau.
- The IAF tableau's theme- 'Indian Air Force transforming for the future'.
- Avani Chaturvedi is one of the three first three Indian female fighter pilots who received the 'Nari Shakti Puraskar 2019' on 8th March 2020.

- The President of India presented the prize to Avani Chaturvedi along with Mohana Jitarwa and Bhawna Kanth.
- The trio was inducted into the IAF's fighter squadron after the Government of India decided to open a fighter stream in the force for women on an experimental basis.
- The three were the first to be inducted into the squadron and conduct a solo flight in MIG-21 in 2018.

34. Answer: d

Explanation:

The correct answer is three.

★ Key Points

- **Raja Parba (Mithuna Sankranti)-**
 - **Raja Parba**, also known as **Mithuna Sankranti**, is a cultural festival celebrated in the Indian state of **Odisha**.
 - It marks the onset of the agricultural season and is observed during the **mid-June period**, coinciding with the **solar transition of the zodiac sign Gemini (Mithuna)**.
 - It is a **three-day-long festival celebrating womanhood**.
 - **2nd day** of the festival marks the **beginning of the solar month of Mithuna**, on which the season of rains starts.
 - It is believed that **Mother Goddess Earth undergoes menstruation during the first three days**.
 - 4th day is called **Vasumati Snana**.
 - Folk songs and dance performances, especially the **"Dalkhai"** dance, are an integral part of the Raja Parba celebrations.
 - The festival signifies the importance of nature, agriculture, and the vitality of women in Odisha's culture and tradition

★ Additional Information

- Other Important festivals of Odisha:

Prepp

Your Personal Exams Guide

Festival Name	Day/Month	Description
Raja Parba	Mid-June	Celebrates womanhood and fertility . Women take a break from household chores and enjoy swings.
Rath Yatra	June/July	Annual chariot festival of Lord Jagannath , where deities are carried on grand chariots.
Durga Puja	September/October	Worship of Goddess Durga with elaborate rituals and cultural festivities.
Kumar Purnima	October/November	Celebrated on the full moon day of Kartik month, associated with the worship of Lord Kartikeya.
Bali Yatra	November	Commemorates the ancient maritime tradition of Odisha and honors the voyage of traders.
Puri Beach Festival	November	Showcases cultural performances, sand art, beach sports, and seafood delicacies at Puri beach.
Konark Dance Festival	December	Renowned classical dance festival held at the backdrop of the Konark Sun Temple.
Makar Sankranti	January	Celebrates the harvest festival and the transition of the sun into the zodiac sign Capricorn.
Ratha Saptami	February	Worship of the Sun God on the seventh day of the bright half of the lunar month of Magha.
Maha Shivaratri	February/March	Devoted to Lord Shiva, observed with fasting, night-long vigils, and temple visits.

35. Answer: d

Explanation:

The correct answer is Both I and II

★ Key Points

- **Newton's first law of motion**
 - States that "An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force."
 - Objects tend to "keep on doing what they're doing."
 - In fact, it is the natural tendency of objects to resist changes in their state of motion.
 - **This tendency to resist changes in their state of motion is described as inertia.**

(Hence statement I is correct)

- **Inertia:**
 - The resistance an object has to a change in its state of motion.
 - All objects resist changes in their state of motion. All objects have this tendency – they have inertia.
 - **The tendency of an object to resist changes in its state of motion varies with mass.**

((Hence statement II is correct))

- Mass is that quantity that is solely dependent upon the inertia of an object.
- The more inertia that an object has, the more mass that it has.
- A more massive object has a greater tendency to resist changes in its state of motion.

★ Additional Information

- **Laws of motion:**

Law of Motion	Description	Example
Newton's First Law	An object at rest tends to stay at rest, and an object in motion tends to stay in motion with the same speed and direction unless acted upon by an external force.	A book resting on a table will remain at rest until an external force, such as pushing it, is applied.
Newton's Second Law	The acceleration of an object is directly proportional to the net force acting on it and inversely proportional to its mass.	If you push a small ball and a large ball with the same amount of force, the smaller ball will experience a larger acceleration due to its lower mass.
Newton's Third Law	For every action, there is an equal and opposite reaction.	When you swim, the action of pushing the water backwards with your arms and legs creates an equal and opposite reaction that propels you forward.

36. Answer: d

Explanation:

The correct answer is 45.

★ **Key Points**

- About Khelo India Programme:
 - Khelo India was formed by merging three schemes: Rajiv Gandhi Khel Abhiyan, Urban Sports Infrastructure Scheme, and National Sports Talent Search Scheme.
 - It works to promote "Sports for All" and "Sports for Excellence".
 - Its aim is the mass participation of youth in annual sports competitions through a structured competition.

• **Khelo India Youth Games 2021:-**

- The 4th edition of the Khelo India Youth Games was held in Haryana.
- The Games were held in Panchkula.
- Gatka, Kalaripayattu, Thang-Ta, and Mallakhamba, four indigenous games were added in December 2020.
- This was announced by Sports Minister Kiren Rijiju and Haryana Chief Minister Manohar Lal Khattar.
- Usually, the Khelo India Youth Games take place in January every year.
- Haryana came second in both Khelo India Youth Games 2019 and 2020 editions (200 medals in 2020 and 159 medals in 2019).
- The Haryana government decided to organize the Khelo India Youth Games in February 2022, in view of the possible third wave of the Covid-19 pandemic.

★ **Additional Information**

Fifth Edition of Khelo India Youth Games:-

- Khelo India Youth Games 2022 was organized in **8 cities** of Madhya Pradesh from 31 January to 11 February 2023.
- These were organized in Madhya Pradesh's **Bhopal, Balaghat, Mandla, Maheshwar, Jabalpur, Ujjain, Gwalior and Indore**.
- There were a total of **28 sports** in this game.
- This **time, break dance and Malkhamb** was also been included in the games.
- The Khelo India Youth Games were started on **31 January 2018** at the **Indira Gandhi Indoor Stadium in New Delhi**.

5th Khelo India games medal tally-

State	Gold	Silver	Bronze	Total
Maharashtra	56	55	50	161
Haryana	41	32	55	128
Madhya Pradesh	39	30	27	96

37. Answer: b

Explanation:

The correct answer is Coromandel Coast.

★ Key Points

- The Coromandel Coast is located on the **eastern coast** of India.
- It is the coastal plain in eastern **Tamil Nadu** state.
- It is bounded by the **Utkal Plains** to the north, the **Bay of Bengal** to the east, the **Kaveri Delta** to the south, and the Eastern Ghats to the west.
- Extending over an area of about **22,800 square kilometres**.

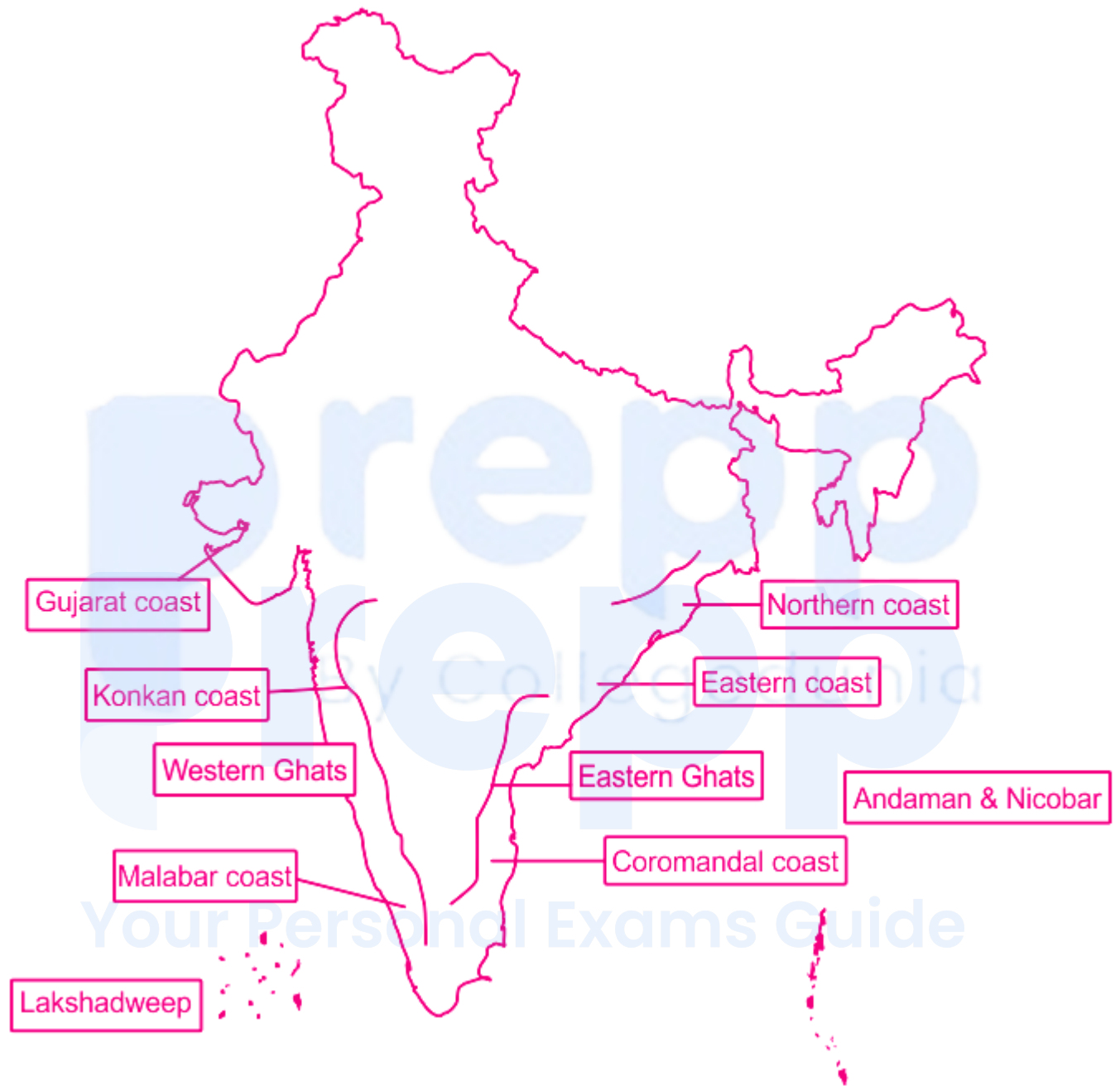
★ Important Points

- **Eastern Coastal Plains of India-**
- The eastern coastal plains stretch from **West Bengal in the north to Tamil Nadu in the south and pass through Andhra Pradesh and Odisha**.
- The Eastern coast is again divided into three categories:
 - **Utkal coast-** Extending between the Chilika Lake and Kolleru Lake, they are much wider than the western coastal plains and undergo immense rainfall.
 - **Andhra coast-** Extending between the Kolleru Lake and Pulicat Lake, the Andhra coast forms a basin area for the Krishna and the Godavari rivers.
 - **Coromandel coast-** The Coromandel coast extends between **Pulicat Lake and Kanyakumari in Tamil Nadu**.
 - This Indian coastline remains dry in summer and receives rainfall during the winters due to the northeast monsoons.
- **Western Coastal Plains of India-**
- Western Coastal Plains stretches from Kerala in the south to Gujarat in the north passing through Karnataka, Goa and Maharashtra.
- The western coast is further divided into four categories:
 - **Kachchh and Kathiawar coast-** Kachchh, formerly a gulf is formed by the deposition of silt by the Indus. Kathiawar is situated to the south of Kachchh.

- **Konkan coast**- It extends between **Daman** in the north to **Goa** in the south.
- Rice and cashew are the two important crops of this region.
- **Kannada coast** - It extends between Marmagaon and Mangalore and is rich in iron deposits.
- **Malabar coast**- Extending between **Mangalore** to **Kanyakumari**, the Malabar coast is relatively broad.
- This region also consists of lagoons running parallel to the coast in southern Kerala.

Prepp

Your Personal Exams Guide



38. Answer: d

Explanation:

The correct answer is the Output unit.

★ Key Points

- The central processing unit (CPU) is the core of a computer system and consists of the **arithmetic logic unit (ALU)** and the **control unit and registers**.
- The **output** unit is not a part of the CPU.

(Therefore option 4 -Output unit is the correct answer)

- A **central processing unit (CPU)**, is also called a **central processor**, **main processor**, or just **processor**.
- It is the electronic circuitry that executes instructions comprising a computer program.
- The CPU performs basic **arithmetic, logic, controlling, and input/output (I/O) operations** specified by the instructions in the program.
- This contrasts with external components such as main memory and I/O circuitry, and specialized processors such as graphics processing units.

★ Additional Information

The principal **components of a CPU include:**

- **Control Unit:**
 - A control unit that orchestrates the fetching (from memory) and execution of instructions by directing the coordinated operations of the ALU, registers and other components.
 - The control unit (CU) is a component of a computer's central processing unit (CPU) that directs the operation of the processor.
 - It tells the computer's memory, arithmetic logic unit and input and output devices how to respond to the instructions that have been sent to the processor.
- **ALU (arithmetic logic unit)-**
 - The arithmetic logic unit (ALU) performs arithmetic and logic operations.
 - In computing, an arithmetic logic unit is a combination digital circuit that performs arithmetic and bitwise operations on integer binary numbers.
 - This is in contrast to a floating-point unit, which operates on floating-point numbers.
- **Registers:**

- Processor registers that supply operands to the ALU and store the results of ALU operations.
- A processor register is a quickly accessible location available to a computer's processor.
- Registers usually consist of a **small amount of fast storage**, although some registers have specific hardware functions, and may be read-only or write-only.

39. Answer: c

Explanation:

The correct answer is Acute.

★ Key Points

- **Acute diseases**
 - Some diseases last for only very **short periods of time**, and these are called **acute diseases**.
 - These diseases occur suddenly and last for a shorter time period.
 - Acute disease causes **sudden damage to the body**.
 - **Examples** of some Acute diseases are Typhoid, bone fracture, heart attack, cholera, common cold, jaundice, malaria, etc.

★ Important Points

- Diseases are mainly two types **based on the duration** of time which are **Acute and chronic diseases**.
- **Chronic diseases**
 - The diseases that occur over a period of time and last a **longer duration of time**, or even for a lifetime are called **chronic diseases**.
 - These diseases progress gradually and usually end up causing long-term damage to organs and internal systems. sometimes chronic diseases become fatal and cause **loss of life**.
 - Examples of Chronic diseases are **Diabetes, cancer, tuberculosis, arthritis, etc.**

★ Additional Information

- **Genetic or hereditary diseases**
 - A hereditary disease is often described as something that “**runs in the family.**”
 - It is passed down from one or both **parents to a child**, who may then pass it to his or her children.
 - Examples of hereditary disorders are: **Thalassemia, Haemophilia, Sickle-cell anaemia**
-

40. Answer: a

Explanation:

The correct answer is 1999

★ Key Points

- The **Insurance Regulatory and Development Authority of India (IRDAI)**, is a **statutory body** formed under an Act of Parliament, i.e., the **Insurance Regulatory and Development Authority Act, 1999 (IRDAI Act 1999)**
- It was founded in **1999**.
- It is founded for the overall **supervision and development of the Insurance sector in India**.
- The body was created on the recommendations of the **Malhotra Committee Report**.
- Its headquarter is located in **Hyderabad**.
- It regulates under the **Ministry Of Finance**.
- **Debasish Panda** is the chairperson of IRDAI.

★ Important Points

- **Organisational Setup:**
 - A Chairman
 - Five whole-time members
 - Four part-time members

- All the **members** of the Insurance Regulatory and Development Authority of India are **appointed by the Government of India**.

41. Answer: b

Explanation:

The correct answer is Wular.

★ Key Points

- **Wular Lake** is the **largest freshwater lake** in India and **lies in the Kashmir Valley**.
- **Wular Lake** is also one of the largest freshwater lakes in Asia.
- It is **sited in the Bandipora district in Jammu and Kashmir, India**.
- The lake basin was formed as a result of **tectonic activity** and is fed by the **Jhelum River**.
- The lake's size varies seasonally from 12 to 100 square miles.
- **Wular Lake** is important to fish habitat, the main species being the common carp, rosy barb, mosquitofish, Nemacheilus species, etc.



★ Additional Information

Loktak Lake-

- **Loktak Lake** is the **largest freshwater lake** in **North East India** and is famous for the **phumdis** (heterogeneous mass of vegetation, soil and organic matter at

various stages of decomposition) **floating over it.**

- The lake is located at **Moirang** in **Manipur** state, **India**.
- **Loktak Day** is observed every year on the **15th of October** at the periphery of the **Loktak lake**.
- This ancient lake plays an **important role** in the **economy** of **Manipur**. It serves as a source of **water** for **hydropower generation**, **irrigation** and **drinking water** supply.
- The lake is also a source of **livelihood** for the **rural fishermen** who live in the surrounding areas and on **phumdis**, also known as **phumshongs**.

Bhimtal Lake-

- One of the well-known lake cities in the **Kumaon region (Uttarakhand)** is Bhimtal.
- In honor of the well-known Mahabharata character Bheem, Bhimtal was formerly called "**Bheemsarovar Lake.**"
- According to mythology, the Pandavas used to travel back to Bhimtal during their exile to visit their home.
- As a result, the **Bhimeshwar Mahadev temple** was built here in honor of Bheema.

Barapani Lake-

- Barapani Lake is situated in **Meghalaya**.
- Barapani Lake is also known as **Umiam Lake**.
- It is an artificial water reservoir created by damming the **Umiam river**.

42. Answer: c

Explanation:

The correct answer is **4G**.

★ Key Points

- In Telecommunications, LTE Technology stands for **Long-Term Evolution**.

- LTE is a standard for wireless broadband communication and is the primary technology used in **4G networks**.
- It provides **faster data transfer rates, lower latency, and improved spectral efficiency** compared to previous generations.
- It allows us to download many things such as **music, videos, websites etc.**
- It is known for being developed by the **3GPP**.
- 4G has the more stability and faster speed when compares to the LTE.
- It is because LTE is a half point between **3G and 4G**.
- Its capability is **3.95G** which has been marketed as **4G LTE**.

★ Additional Information

3G (Third Generation):

- 3G refers to the third generation of wireless technology.
- Common 3G technologies include **UMTS (Universal Mobile Telecommunications System) and CDMA2000 (Code Division Multiple Access 2000)**.
- 3G networks provided faster data speeds compared to 2G but were slower than 4G.

2G (Second Generation):

- 2G refers to the second generation of wireless technology.
- Common 2G technologies include **GSM (Global System for Mobile Communications) and CDMA (Code Division Multiple Access)**.
- 2G networks primarily focused on voice calls and provided limited data capabilities.

1G (First Generation):

- 1G refers to the first generation of wireless technology.
- 1G networks were **analog-based and primarily supported voice calls**.
- 1G networks had limited data capabilities and slower transmission speeds compared to subsequent generations.

43. Answer: d

Explanation:

The correct answer is Both I and II.

★ Key Points

- Macroeconomics is a branch of economics that deals with the structure, **performance, and behaviour of the overall economy.**
- It focuses on areas like **inflation, economic growth rate, price levels of various goods and services, gross domestic product (GDP), national income and the unemployment rate in a particular country.**
- The study of macroeconomics is essential to understand the economic performance of a nation and the factors that affect it.

★ Important Points

- **Macroeconomics deals with the following studies:**
- **Reasons behind the unemployment of resources:**
 - Macroeconomics focuses on understanding and analyzing the factors that contribute to unemployment on a broader scale.
 - It examines the causes and consequences of unemployment, such as changes in aggregate **demand, labour market conditions, technological advancements, and government policies that affect employment levels.**
- **Determination of total output:**
 - Macroeconomics is concerned with studying and explaining the determinants of a country's **total output or national income.**
 - It analyzes the factors that **influence aggregate production and economic growth, including consumption, investment, government spending, and net exports.**
 - Macroeconomists investigate the relationship between these variables and their impact on **overall economic performance.**

★ Additional Information

- **John Maynard Keynes** is known as the **founding father of Macroeconomics as a separate discipline**.
- He was born on **June 5, 1883, in Cambridge**.
- He completed his degree in Mathematics and also joined Civil Services in Britain.
- He represented the British Treasury at the Conference of Versailles.
- He expressed his concerns about the fine imposed on Germany in his **book 'The Economic Consequences of Peace'**.

44. Answer: a

Explanation:

The correct answer is New Zealand.

★ Key Points

- The final of the ICC World Test Championship between **India and New Zealand** will be played in a bio-secure bubble at the Hampshire Bowl in **Southampton, England**.
- It started on **1 August 2019** with the first Test of the 2019 Ashes series and finished with the Final at the Rose Bowl, Southampton in **June 2021**.
- **New Zealand won the ICC Test Championship mace for the first time** and was also awarded the cash prize of *US\$1.6million, while India won US\$800,000*.
- The Captain of New Zealand is **Kane Williamson. (As of 2023)**
- The **ICC World Test Championship** is an international cricket competition organized by the International Cricket Council (ICC) for the ten test cricket-playing nations.

★ Important Points

- **International Cricket Council**
 - It is the world governing body of cricket.
 - It was founded as the **Imperial Cricket Conference** in **1909**.
 - It was founded by representatives from **Australia, England, and South Africa**.

- It was renamed the International Cricket Conference in **1965**.
- It took its current name in **1987**.
- **Headquarters of ICC:** Dubai, UAE.

45. Answer: b

Explanation:

The correct answer is VVS Laxman.

★ Key Points

- A stylish batsman who could score against any kind of bowling, **VVS Laxman** played over a hundred Tests to aggregate more than **8,000 runs**.
- Cricket fans still remember with awe his game-changing **knock of 281 against Australia in 2001 at Eden Gardens**.
- **Vangipurapu Venkata Sai Laxman** is a former Indian international cricketer and a former cricket commentator and pundit.
- A **right-hand batsman** known for his elegant stroke play, Laxman played as a middle-order batsman in Test cricket.
- He was born on 1 November **1974**.
- Book: **281 AND BEYOND** Author: **VVS Laxman** with R Kaushik Publisher: Westland Sport.

★ Additional Information

- **The Test of My Life** is the biography of **Yuvraj Singh**.
- **Playing It My Way** is the autobiography of **Sachin Tendulkar**.
- **Muhammad Ali** is a boxer. His book's name is "**His Life and Times**".
- **Suresh Raina's** autobiography, titled "**Believe – What Life and Cricket Taught Me**"
- **Virat Kohli : Driven: The Virat Kohli Story**

46. Answer: b

Explanation:

The correct answer is Option 2.

★ Key Points

- The Citizenship Act was first passed in India in the year **1955**.
- **The original Citizenship Act of 1955** laid down the framework for Indian citizenship and defined the various ways in which a person could acquire or lose citizenship in India.
- Since its enactment, the act has undergone several amendments to accommodate changes and evolving perspectives on citizenship.

★ Additional Information

- There are four main ways through which an individual can acquire Indian citizenship:
 - **By Birth:** A person born in India on or after January 26, 1950, is considered an Indian citizen by birth, with a few exceptions.
 - **By Descent:** Individuals born outside India on or after January 26, 1950, but have at least one Indian parent, are eligible for Indian citizenship by descent.
 - **By Registration:** Certain categories of people, such as individuals of Indian origin residing outside India, can acquire Indian citizenship through registration by fulfilling specific criteria.
 - **By Naturalization:** Foreigners who have resided in India for a specified period of time and meet other qualifications can apply for Indian citizenship through naturalization.

47. Answer: b

Explanation:

The correct answer is Option 2.

★ Key Points

- **The Indian Independence Act of 1947** partitioned British India into two separate dominions, **India and Pakistan, based on religious lines.**
- The act facilitated the transfer of power from British colonial rule to the newly formed governments of **India and Pakistan.**
- It granted full **legislative authority to India and Pakistan**, establishing them as independent and sovereign nations.
- The partition resulted in widespread communal violence and riots between religious communities, leading to a significant loss of life and displacement of people.
- The act allowed princely states to choose between joining India, joining Pakistan, or remaining independent, leaving the decision to the rulers of these states.

★ Additional Information

- **The Rowlatt Act**, also known as the Anarchical and Revolutionary **Crimes Act of 1919**, was a legislative act passed by the British colonial government in India during the period of British rule.
 - It was named after its sponsor, **Sir Sidney Rowlatt**, who was a British judge.
- **The Government of India Act** refers to several legislative acts passed by the **British Parliament** during the period of **British rule in India.**
 - These acts were intended to regulate and govern the administration of **British India.**
- **Pitt's India Act**, officially known as the **East India Company Act 1784**, was an important piece of legislation passed by the **British Parliament under the leadership of Prime Minister William Pitt the Younger.**
 - The act was designed to bring about significant reforms in the governance and administration of the British East India Company's territories in India.

48. Answer: a

Explanation:

The correct answer is Option 1.

★ Key Points

- Australian tennis player **Ashleigh Barty** defeated American **Danielle Collins** to win the **Australian Open women's title on 29 January 2022**.
- Barty is the first Australian player to win the Australian Open singles championship since **1978**.
- She won the **French Open in 2019 and Wimbledon in 2021** and has been the no.1 ranked female player in the world for over 100 weeks.

★ Additional Information

- Spain's Rafael Nadal won the Australian Open Men's Singles final on 30 January 2022.
- With this victory, Rafael has become the first man to win 21 Grand Slam titles.
- He overtook Roger Federer and Novak Djokovic by winning this title.
- In tennis, Aslan Karatsev won the men's singles title at the Sydney Tennis Classic final, to claim his third ATP Tour title.
- World number six Rafael Nadal won the men's singles tennis title at the 2022 Melbourne Summer Set 1.
- French tennis player Gael Monfils has won the men's singles event of the 2022 Adelaide International 1 to claim the 11th ATP title of his career.
- The Davis Cup 2021 was won by the Russian Tennis Federation with a 2-0 lead over Croatia in the Davis Cup final in Madrid.
- Alexander "Sascha" Zverev has won the fifth ATP title of the season (2021) and 18th overall at the Vienna Open 2021.

49. Answer: c

Explanation:

The correct answer is Option 3.

★ Key Points

- **Birju Maharaj** was a noted dancer of **Kathak**.
- **Kathak** is one of the major **classical dance** forms of India and is characterized by intricate **footwork, graceful movements, storytelling, and expressive facial expressions**.
- **Birju Maharaj**, whose full name is Pandit Birju Maharaj, is a highly acclaimed **Kathak dancer, choreographer, and guru (teacher) who has made significant contributions to the art form**.
- He comes from a long lineage of **Kathak dancers** and has achieved international recognition for his mastery and innovative approach to **Kathak dance**.

★ Additional Information

- **Bharatanatyam** is a classical Indian dance form that originated in the state of **Tamil Nadu**, characterized by intricate footwork, expressive gestures, rhythmic movements, and storytelling.
- **Manipuri** is a classical Indian dance form from the northeastern state of **Manipur**, known for its graceful movements, fluid body postures, use of intricate hand gestures, and vibrant costumes.
- **Sattriya** is a classical Indian dance form from the state of **Assam**, characterized by its devotional themes, rhythmic footwork, graceful movements, and rich cultural heritage.

Your Personal Exams Guide

50. Answer: a

Explanation:

The correct answer is Option 1.

★ Key Points

- **Amir Khusro** was a prominent **poet, musician, and scholar** who lived in the **13th century**.
- He is often referred to as "**Tuti-e-Hind**" or "**The parrot of India**" due to his exceptional talent and mastery in various fields, including poetry, music, and language.

★ Additional Information

- **Lata Mangeshkar** was a renowned **Indian playback singer** known for her **melodious voice and contributions to the Hindi film industry**.
- **Pandit Ravi Shankar** was a **virtuoso sitar player** and composer who popularized **Indian classical music worldwide**.
- **Kalidas** was a famous **classical Sanskrit poet and playwright in ancient India**.

51. Answer: d

Explanation:

Given:

Rajiv sells a pen at a profit of 5 percent.

He sells the pen for Rs. 36 more, then he earns a profit of 14 percent.

Concept Used:

Cost Price = Selling Price $\times 100 / (100 + \text{Profit}\%)$

Calculation:

Let the CP of a pen = Rs. x

Profit = 5%

SP = Rs. 1.05x

According to question

$$1.05x + 36 = 1.14x$$

$$1.14x - 1.05x = 36$$

$$.09x = 36$$

$$x = \text{Rs. } 400$$

$\therefore$ CP of a pen = Rs. 400

$\therefore$ Option 4 is the correct answer.

52. Answer: c

Explanation:

Given

$$\tan 10^\circ \tan 25^\circ \tan 45^\circ \tan 65^\circ \tan 80^\circ$$

Concept used

$$\tan (90 - \theta) = \cot \theta$$

Calculation

$$\Rightarrow \tan (90 - 10) \times \tan (90 - 65) \times \tan 45^\circ \times \tan 65^\circ \times \tan 80^\circ$$

$$\Rightarrow \cot 80^\circ \times \cot 65^\circ \times 1 \times \tan 65^\circ \times \tan 80^\circ$$

$$\therefore \text{Ans} = 1$$

Your Personal Exams Guide

53. Answer: b

Explanation:

Given:

$$x^4 + 1/x^4 = 16$$

Formula:

$$(a^2 + b^2) = (a + b)^2 - 2ab$$

Calculation:

$$\Rightarrow x^4 + 1/x^4 = (x^2 + 1/x^2)^2 - 2$$

$$\Rightarrow 16 + 2 = 18$$

$$\Rightarrow (x^2 + 1/x^2) = 3\sqrt{2}$$

$$\therefore (x^2 + 1/x^2) = 3\sqrt{2}$$

54. Answer: d

Explanation:

Calculation:

J1 = The value of average cost price of A, B, C and D = $(300 + 250 + 150 + 200)/4$

$$900/4 = 225$$

J2 = The total profit of all articles = $50 + 25 + 100 + 150 + 75 + 125 = 525$

The value of $(J1 : J2) = 225 : 525$

$$3 : 7$$

$\therefore$ Option 4 is the correct answer.

55. Answer: d

Explanation:

Given:

Piyush marks the price more than the cost price by = 30%

Discount = 20%

Selling price of the article = Rs. 5720

Formula:

$$SP = MP \times [(100 - \text{Discount\%})/100]$$

Calculation:

$$MP \text{ of the article} = 5720 \times 100/80$$

$$\therefore \text{Cost price of the article} = 5720 \times 100/80 \times 100/130 = \text{Rs. } 5500$$

$\therefore$ Option 4 is the correct answer.

56. Answer: b

Explanation:

Given:

$$\text{Area} = 875 \text{ cm}^2$$

$$\text{Parallel sides} = 21 \text{ cm, } 14 \text{ cm}$$

Concept Used:

$$\text{Area of trapezium} = 1/2 \times \text{sum of parallel sides} \times \text{distance between parallel sides}$$

Calculation:

$$875 = 1/2 \times (21 + 14) \times \text{distance}$$

$$875 \times 2 = 35 \times \text{distance}$$

$$\text{Distance} = 25 \times 2 = 50 \text{ cm}$$

$\therefore$ The distance is 50 cm.

$\therefore$ Option 2 is the correct answer.

57. Answer: d

Explanation:

Calculation:

We need to find the value of $(J1 : J2)$, where:

J1 is the total number of male and female teachers in school P.

J2 is the difference between the total number of male and the total number of female teachers in all 5 schools.

J1 = Total number of male and female teachers in school P

J1 = Sum of Male + Sum of Female

$$J1 = 80 + 60 = 140$$

$$J1 = 140$$

J2 = Difference between the total number of male and the total number of female teachers in all the 5 schools

J2 = Sum of Male - Sum of Female

$$J2 = (60 + 80 + 70 + 50 + 30) - (80 + 70 + 20 + 10 + 30)$$

$$J2 = 290 - 210$$

$$J2 = 80$$

$$140 : 80.$$

$$7 : 4$$

Therefore, the value of $(J1 : J2)$ is 7 : 4

58. Answer: a

Explanation:

Given:

$$\frac{7 \text{ of } 14 \div 4}{5 \times 4 \div 2} + \frac{6 \div 12 \times 3}{5 \div 25 \times 2} + \frac{15 \div 5 \times 6}{5 \times 15 \div 6} ?$$

Concept used:

Follow the BODMAS rule according to the table given below:

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (−)	घटाव (−)

Calculation:

$$\frac{7 \text{ of } 14 \div 4}{5 \times 4 \div 2} + \frac{6 \div 12 \times 3}{5 \div 25 \times 2} + \frac{15 \div 5 \times 6}{5 \times 15 \div 6}$$

$$\frac{24.5}{10} + \frac{1.5}{0.4} + \frac{18}{12.5}$$

$$2.45 + 3.75 + 1.44$$

$$7.64$$

∴ Option 1 is the correct answer.

59. Answer: a

Explanation:

Given:

The ratio of the present age of two girls is 3 : 4.

After two year the ratio will be 7 : 9.

Calculation:

Let the present age of two girls be $3x$ and $4x$.

Acc to question,

$$(3x + 2)/(4x + 2) = 7/9$$

$$27x + 18 = 28x + 14$$

$$x = 4$$

Present ages of girls = 12 and 16

I. After 10 years their ages will be 22 and 26.

Ratio = 11 : 13

Statement is wrong

II. After 12 years their ages will be 24 and 28

Ratio = 6 : 7

Statement II is correct.

$\therefore$ Option 1 is the correct answer.

60. Answer: d

Explanation:

Given:

ABCD is a cyclic quadrilateral.

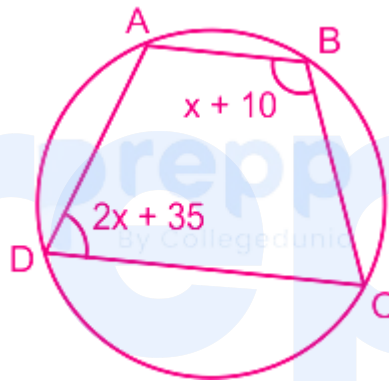
$\angle B$ is opposite to $\angle D$.

$\angle B$ and $\angle D$ are $x + 10$ and $2x + 35$ respectively.

Concept Used:

In a cyclic quadrilateral, the sum of a pair of opposite angles is 180 degrees.

Calculation:



Since angle B and angle D are opposite to each other, we have:

$$\angle B + \angle D = 180^\circ$$

$$x + 10 + 2x + 35 = 180$$

Solving for x:

$$\Rightarrow 3x + 45 = 180$$

$$\Rightarrow 3x = 135$$

$$\Rightarrow x = 45$$

So, the value of x is 45° .

$\therefore$ Option 4 is the correct answer.

61. Answer: b

Explanation:

Calculation:

Let Q expenditure = x

P expenditure = 180% of x = 1.8x

P income = 400% of x = 4x

P saving = 4x - 1.8x = 2.2x

P income = 250 % of Q income

250 % of Q income = 4x

Q income = 4x/250% = 1.6x

Q saving = 1.6x - x = 0.6x

The ratio of the saving of P and Q = 2.2x : 0.6x = 11 : 3

∴ Option 2 is the correct answer.

62. Answer: d

Explanation:

Given:

$$\sin \theta = \frac{5}{13}$$

Concept Used:

$$\cos \theta = \sqrt{1 - \sin^2 \theta}$$

Calculation:

$$\sin \theta = 5/13$$

$$\Rightarrow \cos \theta = \sqrt{1 - (5/13)^2}$$

$$\Rightarrow \cos \theta = \sqrt{(169 - 25)/169}$$

$$\Rightarrow \cos \theta = \sqrt{144/169}$$

$$\Rightarrow \cos \theta = 12/13$$

Put the values in $\frac{\cos^2 \theta - \sin^2 \theta}{2 \cos \theta \cdot \sin \theta}$

$$\Rightarrow \frac{(12/13)^2 - (5/13)^2}{2 \times 12/13 \times 5/13}$$

$$\Rightarrow \frac{119/169}{120/169}$$

$$\Rightarrow 119/120$$

$\therefore$ Option 4 is the correct answer.

63. Answer: d

Explanation:

Given:

The perimeter of an isosceles triangle = 91 cm.

One of the equal sides measures 28 cm.

Concept used:

An isosceles triangle two angles will also be the same in front of the equal sides.

Formula used:

$$P = (2a + b)$$

Where, p = perimeter

a = side and b = another side

Calculation:

Let the length of the equal sides be x

$$P = (2a + b)$$

$$\Rightarrow 91 = 2 \times 28 + b$$

$$\Rightarrow (91 - 56) = b$$

$$\Rightarrow 35 = b$$

$\therefore$ The length of the non-equal side is 35 cm.

$\therefore$ Option 4 is the correct answer.

64. Answer: b

Explanation:

Given:

There are five prime numbers between 30 and 50

Concept Used:

Average = (Sum of the observation)/Number of observation

Calculation:

Prime numbers between 30 and 50 are 31, 37, 41, 43, and 47

$$\Rightarrow \text{Average} = (\text{Sum of the observation})/\text{Number of observation}$$

$$\Rightarrow \text{Average} = (31 + 37 + 41 + 43 + 47)/5$$

$$\Rightarrow 199/5$$

$$\Rightarrow 39.8$$

$\therefore$ Average of all prime numbers b/w 30 and 50 is 39.8

$\therefore$ Option 2 is the correct answer.

65. Answer: b

Explanation:

Given:

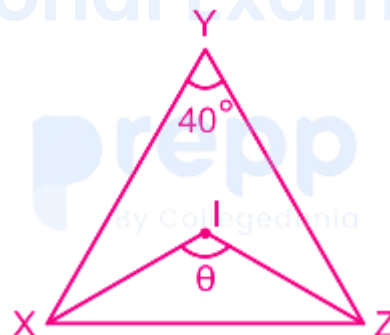
In $\triangle XYZ$, I is the incentre.

$$\angle XYZ = 40$$

Concepts used:

Angle formed at incentre opposite to given side = $90^\circ + (\frac{1}{2} \times \text{angle opposite to given side})$

Calculation:



In $\triangle XYZ$, I is the incentre

$$\angle XIZ = 90^\circ + (\frac{1}{2} \times \angle XYZ)$$

$$\Rightarrow \angle XIZ = 90^\circ + (\frac{1}{2} \times 40)$$

$$\Rightarrow \angle XIZ = 90^\circ + 20^\circ$$

$$\Rightarrow \angle XIZ = 110^\circ$$

$\therefore$ Measure of $\angle XIZ$ is equal to 110° .

$\therefore$ Option 2 is the correct answer.

66. Answer: c

Explanation:

Given:

The three sides of the triangle are 9 cm, 6 cm, and 5 cm respectively.

Formula Used:

$$R = \frac{abc}{4A}$$

Calculation:

Let be assume a, b, and c is the sides of the triangle.

$$\Rightarrow \text{Area of triangle} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$\Rightarrow s = \frac{(a+b+c)}{2} = \frac{20}{2} = 10 \text{ cm}$$

$$\Rightarrow \sqrt{10 \times (10-9) \times (10-6) \times (10-5)}$$

$$A = \sqrt{200}$$

$$A = 10\sqrt{2}$$

$$R = \frac{(abc)}{(4A)}$$

$$R = \frac{(9 \times 6 \times 5)}{(4 \times 10\sqrt{2})}$$

$$R = \frac{(270)}{(40\sqrt{2})}$$

$$R = (27\sqrt{2}/8)$$

Therefore, the value of the circumradius of the triangle with sides 9 cm, 6 cm, and 5 cm is $(27\sqrt{2}/8)$.

67. Answer: c

Explanation:

Concept used:

Total work = Efficiency × Time

Calculation:

Let S and T take 'x' and 'y' days respectively to do the work alone

S's 1 day work = $1/x$

T's 1 day work = $1/y$

Now, S does half as much work as T in $1/8$ of the time taken by T

⇒ S's 1 day work = $1/2 \times$ T's 9 days work

⇒ $1/x = 1/2 \times 8/y$

⇒ $1/y = 1/4x$ -----(1)

Together they complete the work in 60 days,

⇒ S's 1 day work + T's 1 day work = $1/60$

⇒ $1/x + 1/y = 1/60$

Substituting from (1),

⇒ $1/x + 1/4x = 1/60$

⇒ $5/4x = 1/60$

$$\Rightarrow x = 5 \times 60/4 = 75$$

$\therefore$ S will take 75 days to do the work alone

68. Answer: d

Explanation:

Calculation:

$$\sin \alpha = 1/2$$

$$\alpha = 30^\circ$$

$$\text{and } \sin \beta = 1/2$$

$$\beta = 30^\circ$$

$$\cos (\alpha + \beta)$$

$$\cos (30^\circ + 30^\circ) = \cos (60^\circ) = 1/2$$

$\therefore$ Option 4 is the correct answer.

Your Personal Exams Guide

69. Answer: d

Explanation:

Given:

$$a + b + c = 1, ab + bc + ca = -1 \text{ and } abc = -1$$

Formula used:

$$a^3 + b^3 + c^3 - 3abc = (a + b + c) [(a + b + c)^2 - 3(ab + bc + ca)]$$

Calculation:

$$a^3 + b^3 + c^3 - 3abc = (a + b + c) [(a + b + c)^2 - 3(ab + bc + ca)]$$

$$\Rightarrow a^3 + b^3 + c^3 - 3 \times (-1) = 1 [1^2 - 3 \times (-1)]$$

$$\Rightarrow a^3 + b^3 + c^3 + 3 = 1 \times [1 + 3]$$

$$\Rightarrow a^3 + b^3 + c^3 = 4 - 3$$

$$\Rightarrow a^3 + b^3 + c^3 = 1$$

$\therefore$ Option 4 is the correct answer.

70. Answer: d

Explanation:

Given:

Initial value of a car is Rs. 20000.

The value of car depreciated by 20 percent of its initial value each year.

Calculation:

Value of car after 3 years = $20000 \times 80/100 \times 80/100 \times 80/100$

$$\Rightarrow 5120 \times 2 = \text{Rs. } 10240$$

$\therefore$ Option 4 is the correct answer.

71. Answer: c

Explanation:

Calculation:

To find the value of $(a + b)^3 - a^3 - b^3$, we can expand the cube of a binomial using the formula for $(a + b)^3$:

$$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

Substituting this into the expression, we have:

$$(a + b)^3 - a^3 - b^3 = (a^3 + 3a^2b + 3ab^2 + b^3) - a^3 - b^3$$

Expanding and simplifying, we get:

$$(a + b)^3 - a^3 - b^3 = a^3 + 3a^2b + 3ab^2 + b^3 - a^3 - b^3$$

The terms a^3 and b^3 will cancel out, leaving:

$$(a + b)^3 - a^3 - b^3 = 3a^2b + 3ab^2$$

Therefore, the value of $(a + b)^3 - a^3 - b^3$ is $3ab(a + b)$

∴ Option 3 is the correct answer.

72. Answer: d

Explanation:

Calculation:

According to the question:

$$15\% : 5\%$$

$$3 : 1$$

∴ Option 4 is the correct answer.

73. Answer: b

Explanation:

Calculation:

According to the question:

$$(550 - 330)/330 \times 100 = 66.66\%$$

∴ Option 2 is the correct answer.

74. Answer: d**Explanation:**

Formula Used:

Mean = Sum of observation/No. of observation

Calculation:

Using the above formula-

$$\Rightarrow \text{Sum of observation} = 36 \times 8 = 288$$

$$\Rightarrow \text{Change in sum} = 5 \times 5 - 4 \times 3 = 13$$

$$\Rightarrow \text{New mean} = 301/8 = 37.625$$

∴ The correct answer is 37.625 .

∴ Option 4 is the correct answer.

75. Answer: b**Explanation:**

Calculation:

Total distance covered in 1 revolution = $2\pi r = \pi d = (22/7) \times 7 = 0.22 \text{ m}$

Total distance covered in journey = (Speed) $\times$ (Time) = $36.3 \times (75/60) = 45.375 \text{ km} = 45375 \text{ m}$

Total number of revolution = $45375/0.22 = 206250$

$\therefore$ Option 2 is the correct answer.

76. Answer: a

Explanation:

The correct answer is 'Option 1'.

★ Key Points

- The part of the sentence with an error is: '*tools for finding and eat food*'
- The **correct phrase** should be '*tools for finding and eating food*'.
- The **error is due to** incorrect verb tense agreement.
- When listing actions (like "finding" and "eating"), all verbs should be in the same tense and form. In this case, they should both be gerunds (verb + ing) to maintain parallel structure.

The **corrected sentence** would read: "*Our hands have been crucial tools for finding and eating food, and helping us navigate the world.*"

77. Answer: a

Explanation:

The correct answer is 'Option 1'.

★ Key Points

- The phrase "**playing 'patriotic tunes'**" is grammatically correct and makes sense within the context of the sentence.
- "**Patriotic tunes**" is a common phrase used to describe music that is related to or supports love for one's country.

Therefore, the given sentence is **correct**.

78. Answer: c

Explanation:

The correct answer is 'Option 3'.

★ Key Points

- The **correct passive form** of the given sentence is: *The letter was lost by the manager.*
- The **structure of a passive sentence** is: subject + auxiliary verb (be) + past participle + (by + agent).
- In this case, "The letter" is the subject, "was" is the auxiliary verb (the past tense of 'be'), "lost" is the past participle of "lose", and "by the manager" is the agent.

Therefore, the **correct answer** is: '*The letter was lost by the manager.*'

★ Additional Information

Option 1, "The letter was loss by the manager," is incorrect because "loss" is a noun, not a verb.

Option 2, "The letter was loose by the manager," is incorrect because "loose" is an adjective, not the past participle of a verb.

Option 4, "The letter was lose by the manager," is incorrect because "lose" is the base form of the verb, not the past participle.

79. Answer: b

Explanation:

The correct answer is 'Option 2'.

★ Key Points

- **P.** The earliest years of a child's life are critical.
 - This sentence introduces the main topic of the paragraph: the importance of the earliest years in a child's life.
- **S.** These years determine a child's survival and thriving in life, and lay the foundations for her/his learning and holistic development.
 - This sentence extends the idea introduced in sentence P, explaining what makes these years so crucial.
- **R.** It is during the early years that children develop the cognitive, physical, social and emotional skills that they need to succeed in life.
 - This sentence provides specific details about the importance of these years, expanding on what was mentioned in sentence S.
- **Q.** This is why an establishment has been created for the protection of children in these crucial years, known as ECCE.
 - This sentence concludes the paragraph by giving a reason for the creation of an establishment (ECCE) based on the importance of these early years that was detailed in sentences P, S, and R.

Therefore, the **correct answer** is: 'PSRQ'.

80. Answer: c

Explanation:

The correct answer is 'Option 3'.

★ Key Points

- The segment in the sentence which contains a **grammatical error** is: '*perhaps aged young as*'

- The **correct phrase should be** "perhaps as young as" instead of "perhaps aged young as".
- This is a common **phrase used to** estimate someone's age.

Therefore, the **corrected sentence** would be: *"A witness had seen a youth, perhaps as young as ten or eleven, acting suspiciously."*

81. Answer: b

Explanation:

The correct answer is 'Option 2' i.e. 'Finally finished'.

★ Key Points

- The **correct improvement** for the underlined part of the sentence, "finally finish," is: **finally finished**
- The **context of the sentence** indicates that the speaker has completed their taxes.
- Therefore, the **past tense verb "finished"** should be used instead of the present tense verb "finish."

Therefore, the **correct sentence** is: *'I won't bore you with the details, but I finally finished my taxes.'*

82. Answer: b

Explanation:

The correct answer is 'Option 2' i.e. 'Refined'.

★ Key Points

- The word "**Inchoate**" means just begun and so not fully formed or developed; rudimentary. (अपूर्ण)

- The opposite in meaning to "Inchoate" would be: **Refined**.
- It means developed or improved so as to be precise or subtle.(संशोधित)

Therefore, the **correct answer** is: '**Refined**'.

★ Additional Information

- Here are the explanations for the rest of the words:
 - **Artless** – it means without guile or deception or lacking art, knowledge, or skill.(सीधा-सादा)
 - **Articulate** – it means having or showing the ability to speak fluently and coherently.(स्पष्ट)
 - **Formless** – it means without a clear or definite shape or structure. (अरूप)

83. Answer: d

Explanation:

The correct answer is 'Option 4' i.e. '**Sacrilege**'.

★ Key Points

- The **most appropriate one-word** substitution for 'the violation or profanation of anything sacred or held sacred' is: '**Sacrilege**'
- '**Sacrilege**' refers to the violation or misuse of what is regarded as sacred.
(पवित्रता का उल्लंघन)

Therefore, the **correct answer** is: '**Sacrilege**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Pious** – showing reverence for a deity and devotion to the worship of a deity.(धार्मिक)
 - **Sacramental** – relating to or constituting a sacrament, rite, or act of Christian worship.(संस्कार सम्बन्धी)

- **Holy** – dedicated or consecrated to God or a religious purpose; sacred.
(पवित्र)

84. Answer: a

Explanation:

The correct answer is 'Option 1'.

★ Key Points

- The correct option to improve the bracketed part of the sentence, "**meagre leaks, special,**" is: '**small leaks, especially**'
- The term "**meagre leaks**" is not commonly used and can be confusing. "**Small leaks**" is a more appropriate term to use in this context.
- Also, the adverb "**especially**" is the correct word to use here because it emphasizes that particular attention should be given to the "pipework connections."

Therefore, the **correct sentence** is: '*Check all radiators for **small leaks, especially** round pipework connections.*'

★ Additional Information

- "**Modest leaks**" (option 3) could also be understood, but it's less clear and precise than "**small leaks.**"
- The word "**specially**" (options 3 and 4) is not incorrect per se, but "**especially**" is the more appropriate choice in this context because it is used to indicate something as a special case.
- "**Cramped leaks**" (option 4) does not make sense in this context as "**cramped**" refers to a lack of space and can't describe a leak.

85. Answer: c

Explanation:

The correct answer is 'Option 3' i.e. 'Eagle eyes'.

★ Key Points

- The correct phrase to fill in the blank is: '**eagle eyes**'
- The term "**eagle eyes**" is often used metaphorically to describe someone's sharp vision or attentive observation, as eagles are known for their keen eyesight.

Therefore, the **correct answer** is: "*David always kept his eagle eyes open for anything that might put them at risk.*"

★ Additional Information

- Here's the explanation for the other options:
 - "**Black eye**" is a term often used to describe a bruise around the eye typically caused by an injury to the face rather than the eye itself. This phrase would not make sense in this context.
 - "**Starry eyes**" is a term used to describe a state of dreamy or idealistic admiration, often for someone or something. It doesn't fit in this context as it doesn't convey vigilance or alertness.
 - "**Sheep eyes**" is not a common idiomatic expression in English and doesn't carry a meaning that fits the context of the sentence.

86. Answer: a

Explanation:

The correct answer is 'Option 1' i.e. 'Assimilate'.

★ Key Points

- The word "**Attune**" means to make receptive or aware, or to bring into harmony. In Hindi, it can be translated as "मेल खाना" or "सामंजस्य".

- The word that is closest in meaning (**synonym**) to "Attune" is: '**Assimilate**'.
- It means to take in information, ideas, or culture and understand fully, or to bring into harmony. In Hindi, "Assimilate" can be translated as "समाहित करना" or "एकीकृत करना".

Therefore, the **correct answer** is: '**Assimilate**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Skew** – to turn or change in a direction away from a course or standard. (टेंढ़ा)
 - **Estrange** – to cause someone to be no longer friendly or close to another person or group. (अलग करना)
 - **Disrupt** – to interrupt by causing a disturbance or problem. (बाधा डालना)

87. Answer: b

Explanation:

The correct answer is '**Option 2**' i.e. '**Ingenious**'.

★ Key Points

- The wrongly spelt word among the given options is: '**Ingenous**'
- The correct spelling of the word is "**Ingenuous**".
- The term "**Ingenuous**" means showing innocent or childlike simplicity and candidness. (भोला-भाला)

Therefore, the **correct answer** is: '**Ingenous**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Innocuous** – This means not harmful or offensive. (हानिरहित)
 - **Inimical** – This refers to being likely to cause damage or have a harmful effect; not friendly. (शत्रुतापूर्ण)

- **Invulnerable** – This means impossible to harm or damage. (अभेद्य)

88. Answer: b

Explanation:

The correct answer is 'Option 2' i.e. 'Sense'.

★ Key Points

- The word "**Babble**" refers to talk rapidly and continuously in a foolish, excited, or incomprehensible way. (गपशप)
- The most appropriate antonym (opposite in meaning) of "**Babble**" is: '**Sense**'.
- It **means** a sane and realistic attitude to situations and problems. (बुद्धि)

Therefore, the **correct answer** is: '**Sense**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Drivel** – nonsense talk or writing. (निरर्थक बातें)
 - **Jargon** – special words or expressions used by a profession or group that are difficult for others to understand. (शब्दजाल)
 - **Gibberish** – unintelligible or meaningless speech or writing. (गोलमोल बोलना)

89. Answer: a

Explanation:

The correct answer is 'Option 1'.

★ Key Points

- Here's why this makes sense:
- Q: "argued that 1919 was the year when Einstein's name".

- This **segment works best after the opening phrase** "It could be", as it gives context about the year when Einstein's fame started to rise significantly.
- **P:** "became a byword for superhuman intellectual ability".
 - This segment **logically follows Q**, as it explains how Einstein's name came to be associated with superhuman intellectual ability.
- **R:** "making possible the small industry of".
 - This **segment follows P** and links the reputation of Einstein's name to its commercial impact.
- **S:** "Einstein-themed merchandise that still exists today".
 - This **final segment** brings the sentence to a close, detailing the specific commercial manifestation of Einstein's reputation – themed merchandise.

Therefore, the **correct answer** is: 'QPRS'.

90. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The idiom "**All bark and no bite**" refers to someone who talks tough or threatens others, but is actually not harmful or likely to take action. (धमकी देने वाला पर कार्रवाई नहीं करने वाला)
- The **most appropriate meaning** for this idiom is: **Full of talk, but low on action**

Therefore, the **correct answer** is: '*Full of talk, but low on action*'.

★ Additional Information

- Here are explanations for the rest of the options:
 - **Someone who sticks to his words** – This suggests a person who follows through on their promises or threats, which is the opposite of "All bark and no bite".

- **Actions are stronger than mere words** – This phrase expresses the idea that actions have more impact than merely talking about something, which isn't the precise meaning of "All bark and no bite".
- **Not being able to understand anything** – This doesn't relate to the meaning of "All bark and no bite" at all. The idiom does not refer to confusion or a lack of understanding.

91. Answer: c

Explanation:

The correct answer is 'Option 3' i.e. 'Work'.

★ Key Points

- The word "**Leisure**" refers to the time when one is not working or occupied; free time.(आराम)
- The word that is opposite in meaning (antonym) to "**Leisure**" is: '**Work**'.
- **It refers** to an activity involving mental or physical effort done in order to achieve a purpose or result.(काम)

Therefore, the **correct answer** is: '**Work**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Retire** – means to leave one's job and cease to work after reaching a certain age.(सेवानिवृत्त होना)
 - **Worship** – is the act of showing respect and love for a god, especially by praying.(उपासना)
 - **Play** – Usually refers to engaging in activity for enjoyment and recreation rather than a serious or practical purpose.(मनोरंजन)

92. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The phrase "**Appeal to Caesar**" originates from the New Testament of the Bible, where the apostle Paul, being a Roman citizen, exercised his right to have his legal case heard directly by the emperor Caesar, who was considered the ultimate authority.
- Therefore, **this phrase refers to** appealing to the highest possible authority. (सर्वोच्च सत्ता के पास अपील करना)
- The **most appropriate meaning** for this idiom is: *Appeal to the highest possible authority*

Therefore, the **correct answer** is: '*Appeal to the highest possible authority*'.

★ Additional Information

- Here are explanations for the rest of the options:
 - **An authority given to a foolish person** – This suggests that a person of low wisdom or intelligence has been given power, which is not the meaning of "Appeal to Caesar".
 - **To expect good from a wrong person** – This phrase expresses the idea of having false hopes from someone who is not reliable or good, which isn't the precise meaning of "Appeal to Caesar".
 - **To live in a false reality** – This doesn't relate to the meaning of "Appeal to Caesar" at all. The phrase does not refer to living in delusion or a lack of understanding reality.

93. Answer: b

Explanation:

The correct answer is 'Option 2' i.e. 'Cynosure'.

★ Key Points

- The phrase "**One who is a centre of attraction**" refers to someone who draws or garners a lot of attention or interest from others. (ध्यान का केंद्र)
- **Cynosure** – which refers to a person or thing that is the center of attention or admiration.

Therefore, the correct answer is: '**Cynosure**'.

★ Additional Information

- Here are explanations for the rest of the words:
 - **Exposure** – refers to the state of being exposed to contact with something, such as a harmful or pleasant environment, or to public attention. (प्रकटीकरण)
 - **Commissure** – is a term used in anatomy to denote a site of union or junction. (योग स्थल)
 - **Censure** – refers to the expression of severe disapproval, typically in a formal statement. (निन्दा)

94. Answer: d

Explanation:

The correct answer is '**Option 4**'.

★ Key Points

- **When converting** a direct question into indirect speech, you generally use a conjunction like "**if**" or "**whether**" to connect the main clause with the question clause.
- **The tense** of the verb in the question clause often moves back in time (backshifts).
- In this case, the present tense "**are**" backshifts to "**were**".
- So, "Are we going to New York next year?" becomes "if we were going to New York next year."

Therefore, the **correct answer** is: '*Rahul asked me if we were going to New York next year.*'

95. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The **wrongly spelled** word among the given options is: '**harange**'
- The correct spelling is "**harangue**" which means a lengthy and aggressive speech or a vehement attack in words. (लम्बी और कटु बातचीत" or "तीव्र आलोचना)

Therefore, the **correct answer** is: '**Harange**'

★ Additional Information

- Here are explanations for the rest of the words:
 - **Gauche** - refers to lacking ease or grace; unsophisticated and socially awkward. (फूहड़)
 - **Fallacious** - means based on a mistaken belief. (भ्रामक)
 - **Erudite** - refers to having or showing great knowledge or learning. (विद्वान)
-

96. Answer: c

Explanation:

The correct answer is 'Option 3' i.e '**From**'.

★ Key Points

- The most appropriate option to fill in the blank No. 1 is: '**from**'

- The reason **"from"** is the correct answer is due to the way it is used in the sentence.
- **In this context**, "data from the Pioneer spacecraft of NASA" suggests that the Pioneer spacecraft is the source of the data.
- **"From"** is often used to indicate the source or origin of something.

Therefore, the **correct sentence** is: *Data **from** the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is 2. _____ to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the 5. _____.*

★ Additional Information

- Here are explanations for the rest of the words:
 - **"On"** – This preposition is typically used to express a state of being in contact with or supported by something. In this context, "data on the Pioneer spacecraft" would suggest data about the spacecraft, which is not what the sentence intends.
 - **"Across"** – This preposition indicates movement or location from one side to another, which doesn't fit in this context.
 - **"Through"** – This preposition indicates movement in one side and out of the other side, which doesn't fit in this context.

97. Answer: a

Explanation:

The correct answer is 'Option 1' i.e. 'Due'.

★ Key Points

- The **most appropriate option** to fill in the blank No. 2 is: '**Due**'
- Here, the word "**due**" is used to attribute the high surface temperature of Venus to the atmospheric greenhouse effect.

Therefore, the **correct sentence** is: *Data **from** the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is **due** to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse 3. _____ is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the 5. _____.*

★ Additional Information

- Here are explanations for the rest of the words:
 - "**Understood**" – This term generally implies that something is comprehended or grasped. In this context, it doesn't fit grammatically or logically.
 - "**Because**" – This conjunction is used to introduce a word or phrase that stands for a clause expressing an explanation or reason. However, it doesn't fit in this context because it would render the sentence grammatically incorrect.
 - "**Cause**" – As a noun, cause refers to a person or thing that gives rise to an action or condition. As a verb, it means to make something happen. However, it's not grammatically correct in this context.

98. **Answer: d**

Explanation:

The correct answer is '**Option 4**' i.e. '**Effect**'.

★ Key Points

- The most appropriate option to fill in the blank No. 3 is: '**Effect**'
- The reason "**effect**" is the correct answer is because of its use in this context.
- The term "**greenhouse effect**" is a widely accepted term in environmental science that refers to the process by which radiation from a planet's atmosphere warms the planet's surface to a temperature above what it would be without the atmosphere.

Therefore, the **correct answer** is: *Data **from** the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is **due** to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse **effect** is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its 4. _____ and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the 5. _____.*

★ Additional Information

- Here are explanations for the rest of the words:
 - "**Affect**" – This is usually a verb, and it means to have an effect on; to make a difference to. In this context, it's not appropriate because we need a noun to follow "greenhouse."
 - "**Displacement**" – This is a noun, and it typically refers to the moving of something from its place or position. It doesn't fit in this context.
 - "**Contour**" – This is a noun, and it refers to an outline representing or bounding the shape or form of something. It doesn't fit in this context.

99. Answer: a

Explanation:

The correct answer is 'Option 1' i.e. 'Surface'.

★ Key Points

- The **most appropriate** option to fill in the blank No. 4 is: '**Surface**'
- In this context, "**surface**" is the most logical choice because it is the surface of a planet that gets warmed by sunlight that has passed through the atmosphere.

Therefore, the **correct sentence** is: *Data **from** the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is **due** to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse **effect** is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its **surface** and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the 5. _____.*

★ Additional Information

- Here are explanations for the rest of the words:
 - "**Walls**" – This term generally refers to the sides of a building or room. It's not applicable in this context, as we're talking about a planet, not a man-made structure.
 - "**Atmosphere**" – While it's true that the atmosphere plays a significant role in the greenhouse effect, in this context it's not the part that gets warmed directly by the sunlight. The sunlight first warms the surface of the planet.
 - "**Core**" – The core refers to the innermost part of something, especially a planet. The sun's light and heat don't reach the core of a planet directly, they warm the surface first.

100. Answer: c

Explanation:

The correct answer is 'Option 3' i.e. 'Earth'.

★ Key Points

- The **most appropriate** option to fill in the blank No. 5 is: 'Earth'

- In the **given context**, the sentence is comparing Venus' atmosphere, which consists of more than ninety percent carbon dioxide, to that of another planet.
- The term "relatively thin atmosphere like the Earth's" provides a clear hint that Earth is the planet being compared to Venus.
- So the **logical and appropriate completion** to this sentence is "Earth".

Therefore, the **correct answer** is: *Data **from** the Pioneer spacecraft of NASA apparently prove the theory that the high surface temperature of Venus is **due** to an atmospheric greenhouse effect caused mainly by a blanket of carbon dioxide. Such a greenhouse **effect** is created when energy in the form of sunlight easily passes through a planet's atmosphere, warms its **surface** and is converted to heat radiation that is then held in by the atmosphere from top to bottom. Venus has a relatively thin atmosphere like the Earth's, but Venus' atmosphere consists of more than ninety percent carbon dioxide, compared to less than four percent in that of the **earth**.*

★ Additional Information

- Here's a brief explanation of the rest of the options:
 - **Pluto:** Although Pluto is a celestial body in our solar system, it has been reclassified as a "dwarf planet" and not a main planet. Furthermore, its atmosphere is not typically compared to Venus in the context of greenhouse effect discussions.
 - **Mars:** Mars does have an atmosphere and it's often a point of study in discussions about planetary atmospheres, but in this context, the comparison is specifically leading towards Earth.
 - **Mercury:** Mercury is the planet closest to the sun and it has a very thin atmosphere that's not usually involved in discussions about the greenhouse effect.