General English

1.

Not only her parents _____ her class teacher _____ proud of her results.

(A)

but also, was

(B)

but also, were

(C)

and also, was

(D)

and also, were

Answer: (A) but also, was

2.

Yesterday I got a call from my old friend, and he _____ me the whole story.

(A)

tell

(B)

tells

(C)

told

(D)

telling

Answer: (C) told

3.

Maldives is a country _____ thousands of islands, and it is _____ most dispersed country.

(A)

made of, a

(B)

made of, the

(C)

made up of, a

(D)

made up of, the

Answer: (D) made up of, the

4.

You need to write your mobile number, while home address is _____.

(A)

option

(B)

options

(C)

optional

(D)

optionals

Answer: (C) optional

5.

The problem is not _____ to one of internal.

(A)

reduce

(B)

reducible

(C)

reliable

(D)

reduction

Answer: (B) reducible

6.

What is the synonym of “Vagary”?

(A)

Energy

(B)

Whim

(C)

Purpose

(D)

Uproar

Answer: (B) Whim

7.

What is the synonym of “Supercilious”?

(A)

Arrogant

(B)

Excite

(C)

Quell

(D)

Courteous

Answer: (A) Arrogant

8.

What is the synonym of “Rapacious”?

(A)

Greedy

(B)

Silly

(C)

Reckless

(D)

Capricious

Answer: (A) Greedy

9.

What is the synonym of “veracity”?

(A)

inaccuracy

(B)

reality

(C)

redundancy

(D)

falsehood

Answer: (B) reality

10.

I repeat it on my soul and (Salvation). The word in brackets means:

(A)

Redemption

(B)

Life

(C)

Religion

(D)

Honour

Answer: (A) Redemption

11.

What is the antonym of “Barren”?

(A)

Radiant

(B)

Reduce

(C)

Fertile

(D)

Besiege

Answer: (C) Fertile

12.

What is the antonym of “Imp”?

(A)

Demon

(B)

Angel

(C)

Rogue

(D)

Pedestrian

Answer: (B) Angel

13.

What is the antonym of “ANTIQUE”?

(A)

Ancient

(B)

Beautiful

(C)

Colourful

(D)

Modern

Answer: (D) Modern

14.

What is the antonym of “furious”?

(A)

happy

(B)

barrier

(C)

angry

(D)

wild

Answer: (A) happy

15.

What is the antonym of “PROTECT”?

(A)

Defend

(B)

Deprive

(C)

Abandon

(D)

Safe

Answer: (C) Abandon

16.

His speech in French was _____ it was completely incomprehensible.

(A)

more complicated so

(B)

such complicated so

(C)

so complicated that

(D)

much complicated that

Answer: (C) so complicated that

17.

Due to slippery road conditions and winding highway, the car _____ down the steep mountainous road

(A)

Venilated

(B)

Careened

(C)

Agitated

(D)

Dissented

Answer: (B) Careened

18.

My father is _____ to taking long walks after dinner.

(A)

Accustomed

(B)

Accostomed

(C)

Accustommed

(D)

Acustomed

Answer: (A) Accustomed

19.

The jury members _____ for almost an hour before singing the verdict.

(A)

adjourned

(B)

deferred

(C)

deliberated

(D)

accidental

Answer: (C) deliberated

20.

They spent the evening _____ through forty years of accumulated junk.

(A)

sulking

(B)

sifting

(C)

combine

(D)

screening

Answer: (B) sifting

(21-25)
Instructions:
Read the following paragraphs carefully. Choose the correct answer from the options given below:

The sea-waves can cause a significant damage when they crash the lands. Under a clear sky and calm sea, a wall of water may appear twenty or thirty feet high over beaches, destroying houses and drowning residents in its path.
When a submarine earthquake happens, it is likely to cause an enormous amount of shock, disturbing the quite waters of the deep ocean. This disturbance transfers to the surface and forms a huge swell. The swells in the ocean are nearly a mile wide and rise to various multiple of ten feet in height.
Nothing was accomplished about tsunamis until after the second World War. These waves travel towards the land hundreds of miles an hour, and you can imagine that how they would crash!

21.

An aspect of the waves is the fact that they?

(A)

are produced by deep swells

(B)

often strike during clear weather

(C)

arise under conditions of cold temperature

(D)

are formed in concentric patterns

Answer: (B) often strike during clear weather

22.

These destructive waves are caused by?

(A)

storms

(B)

concentric time belts

(C)

underwater earthquakes

(D)

seismic changes

Answer: (C) underwater earthquakes

23.

The normal maximum width of the waves is approximately?

(A)

one mile

(B)

five miles

(C)

five feet

(D)

ten feet

Answer: (A) one mile

24.

Nothing was done about the waves until?

(A)

a solution was found

(B)

deaths occurred

(C)

severe damage was incurred

(D)

the outbreak of World War II

Answer: (D) the outbreak of World War II

25.

The motion of the waves has been calculated at a speed of?

(A)

1 kilo meter an hour

(B)

50 miles an hour

(C)

100 miles an hour

(D)

more than a hundred miles an hour

Answer: (D) more than a hundred miles an hour

General Intelligence and Reasoning

26.

If the KNIFE is coded as MPKHG, what do the letters DTGCF stand for?

(A)

BARED

(B)

BREAD

(C)

BRADE

(D)

BRAED

Answer: (B) BREAD

27.

If the letters GBOQX stand for HAPPY, for which word the letters CROSS stand for?

(A)

BSPTR

(B)

BSNTR

(C)

BNSTR

(D)

BSNRT

Answer: (B) BSNTR

28.

If in a certain language SISTER is coded as 535301, UNCLE is coded as 84670 and BOY as 129, how son is coded?

(A)

923

(B)

524

(C)

342

(D)

872

Answer: (B) 524

29.

What terms will fill the blank spaces? Z X V T R (….), (……..)

(A)

O, K

(B)

N, M

(C)

K, S

(D)

P, N

Answer: (D) P, N

30.

Which term comes next in the sequence: nd, iy, dt, yo, tj, …?

(A)

mp

(B)

nq

(C)

of

(D)

oe

Answer: (D) oe

31.

What will be the next term in: BDF, CFI, DHL, ….?

(A)

CJM

(B)

EIM

(C)

EJO

(D)

EMI

Answer: (C) EJO

32.

A pineapple costs Rs. 7 each. A watermelon costs Rs. 5 each. X spends Rs. 38 on these fruits. The number of pineapples purchased is

(A)

2

(B)

3

(C)

4

(D)

5

Answer: (C) 4

33.

A woman says, "If you reverse my own age, the figures represent my husband's age. He is, of course, senior to me and the difference between our ages is one-eleventh of their sum." The woman's age is?

(A)

23 years

(B)

34 years

(C)

45 years

(D)

54 years

Answer: (C) 45 years

34.

A girl counted in the following way on the fingers of her left hand: She started by calling the thumb 1, the index finger 2, middle finger 3, ring finger 4, little finger 5 and then reversed direction calling the ring finger 6, middle finger 7 and so on. She counted up to 1994. She ended counting on which finger?

(A)

Thumb

(B)

Index finger

(C)

Middle finger

(D)

Ring finger

Answer: (B) Index finger

35.

Choose the alternative which is closely resembles the water-image of the given combination.

GRI8AP76ES

(A)

1

(B)

2

(C)

3

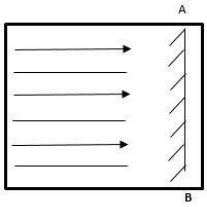
(D)

4

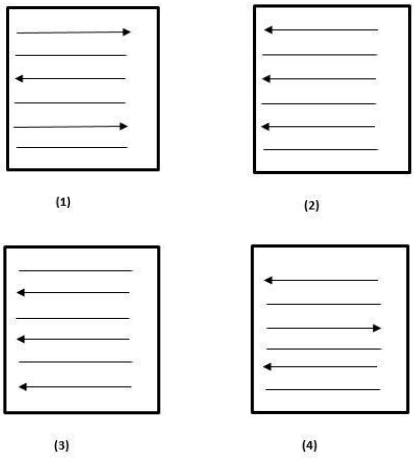
Answer: (C) 3

36.

In the question, if a mirror is placed on the line AB then which of the answer figures is the right image of the given figure?



Answers figure:



(A)

1

(B)

2

(C)

3

(D)

4

Answer: (B) 2

37.

How many different ways can the letters of the word “SPOT” be arranged?

(A)

4

(B)

6

(C)

8

(D)

12

Answer: (A) 4

38.

What is the sum of numbers on any three faces meeting at a corner of a standard six-faced dice?

(A)

7

(B)

9

(C)

11

(D)

13

Answer: (D) 18

39.

How many different ways can the letters of the word “PLAY” be arranged?

(A)

4

(B)

6

(C)

8

(D)

12

Answer: (B) 6

40.

Introducing a lady, a man said, "Her mother is the only daughter of my mother-in-law." What is the man to the lady?

(A)

Son

(B)

Father

(C)

Uncle

(D)

Husband

Answer: (B) Father

41.

Introducing a woman, a man said, "Her mother's husband's sister is my aunt." How man is related to the woman?

(A)

Nephew

(B)

Brother

(C)

Brother-in-law

(D)

Cousin

Answer: (B) Brother

42.

Leela, who is Sohan's daughter, says to Latika, "Your mother Alka is the younger sister of my father who is the third child of Gajanan." What is the relation of Gajanan to Latika?

(A)

Father

(B)

Uncle

(C)

Grandfather

(D)

Father-in-law

Answer: (C) Grandfather

43.

Choose the word which is different from the rest.

(A)

Kiwi

(B)

Eagle

(C)

Emu

(D)

Ostrich

Answer: B (Eagle)

44.

Float : Sink :: Boat : ?

(A)

Ship

(B)

War

(C)

Submarine

(D)

Missile

Answer: (C) Submarine

45.

The difference between the place value and the face value of 7 in the numeral 967452 is

(A)

6393

(B)

5831

(C)

6993

(D)

6339

Answer: (C) 6993

46.

On dividing 2272 as well as 875 by 3-digit number N, we get the same remainder. The sum of the digits of N is:

(A)

13

(B)

12

(C)

11

(D)

10

Answer: (D) 10

47.

Arrange the words given below in a meaningful sequence.
1. Poverty
2. Population
3. Death
4. Unemployment
5. Disease

(A)

2, 3, 4, 5, 1

(B)

3, 4, 2, 5, 1

(C)

2, 4, 1, 5, 3

(D)

1, 2, 3, 4, 5

Answer: (C) 2, 4, 1, 5, 3

48.

Arrange the words given below in a meaningful sequence.
1. Leaf
2. Fruit
3. Stem
4. Root
5. Flower

(A)

3, 4, 5, 1, 2

(B)

4, 3, 1, 5, 2

(C)

4, 1, 3, 5, 2

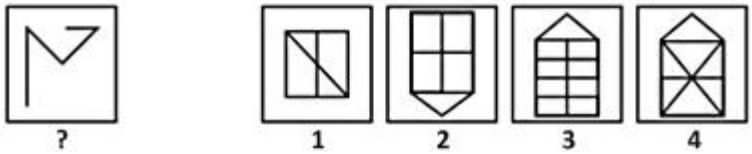
(D)

4, 3, 1, 2, 5

Answer: (B) 4, 3, 1, 5, 2

49.

Find out the alternative figure which contains figure (?) as its part.



(A)

1

(B)

2

(C)

3

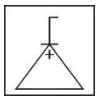
(D)

4

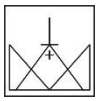
Answer: (D) 4

50.

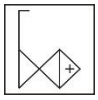
Find out the alternative figure which contains the given figure as its part.



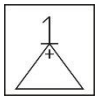
(A)



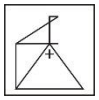
(B)



(C)



(D)

Answer: (D) 

Numerical Ability

51.

Solve 1599 ÷ 39.99 + $\frac{4}{5}$ × 2449 - 120.05 =?

(A)

1880

(B)

1940

(C)

1680

(D)

1980

Answer: (A) 1880

52.

$\frac{(36.54)^2 - (3.46)^2}{?}$ =40

(A)

3.308

(B)

4

(C)

33.08

(D)

330.8

Answer: (C) 33.08

53.

The value of $\frac{3.157\times4126\times3.198}{63.972\times2835.121}$ is closest to:

(A)

0.002

(B)

0.02

(C)

0.2

(D)

2

Answer: (C) 0.02

54.

A sales executive gets 20% bonus of the total sales value and 10% commission besides the bonus on the net profit after charging such commission. If the total sales value be Rs. 10 lakh per annum and the total profit of the company be Rs. 1.32 lakh, then his total earning per annum will be, given that he is not entitled to receive any fixed salary from the company:

(A)

2.3 lakh

(B)

2.32 lakh

(C)

2.12 lakh

(D)

3.2 lakh

Answer: (C) 2.12 lakh

55.

A shepherd had n goats in the year 2000. In 2001 the no. of goats increased by 40%. In 2002 the no. of goats declined to 70%. In 2003 the no. of goats grew up 30%. In 2004, he sold 10% goats and then he had only 34,398 goats. The percentage increase of the no. of goats in this duration was:

(A)

16.66%

(B)

14.66%

(C)

11.33%

(D)

20%

Answer: (B) 14.66%

56.

In an office in Singapore there are 60% female employees. 50 % of all the male employees are computer literate. If there are total 62% employee's computer literate out of total 1600 employees, then the no. of female employees who are computer literate?

(A)

690

(B)

674

(C)

672

(D)

960

Answer: (C) 672

57.

Price of Article-1 and Article-2 are Rs. 3750 and Rs. 6000 respectively. Price of Article-1 increases by 36% and that of Article-2 decreases by 12.5%, then the ratio of the new prices of Article-1 and Article-2 is?

(A)

20 : 21

(B)

41 : 42

(C)

34 : 35

(D)

4 : 5

Answer: (C) 34 : 35

58.

There are only Rs. 1 and 50 paisa coins in a bag. If the total amount in the bag is Rs. 63 and the ratio of Rs. 1 and 50 paisa coins is 2 : 3, then what is the total number of 50 paisa coins?

(A)

48

(B)

32

(C)

56

(D)

54

Answer: (D) 54

59.

The ratio of two numbers is 2 : 3 . If the first number is increased by 20% and second number is decreased by 20%, then the sum of number becomes 96. Find the sum of original numbers

(A)

100

(B)

120

(C)

140

(D)

150

Answer: (A) 100

60.

The average monthly salary of the workers in the workshop is Rs. 9,900. If the average monthly salary of 7 technicians is Rs. 11,200 and average monthly salary of the rest is Rs. 8,600, the total number of workers in the workshop is

(A)

17

(B)

14

(C)

18

(D)

11

Answer: (B) 14

61.

There are 63 students in a class. Due to the admission of 14 more students, the expenses of the class are increased by Rs 77 per day while the average expenditure per head decreased by Re 1. What was the original expenditure of the class?

(A)

Rs 693

(B)

Rs 713

(C)

Rs 535

(D)

Rs 854

Answer: (A) Rs 693

62.

The batting average of a cricket player for 64 innings is 62 runs. His highest score exceeds his lowest score by 180 runs. Excluding these two innings, the average of remaining innings becomes 60 runs. What is his highest score?

(A)

180 runs

(B)

209 runs

(C)

212 runs

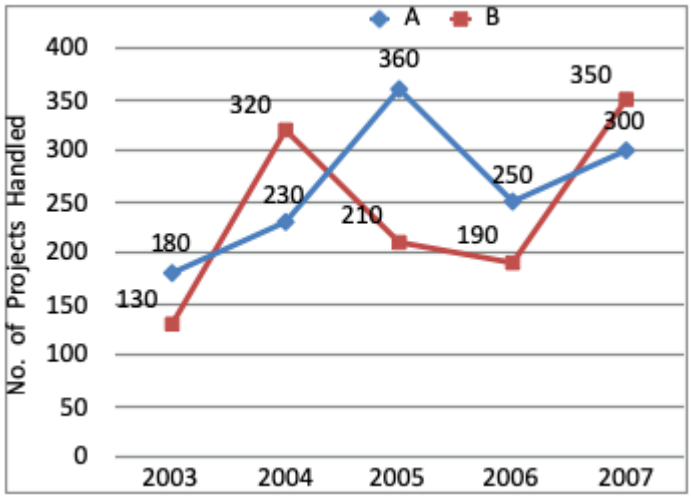
(D)

214 runs

Answer: (D) 214 runs

(63 - 65)

Refer to the graph and answer the given questions:
Data related to the number of projects handled by two companies A and B over 5 years.



63.

What is the difference between the total numbers of projects handled by company A in 2003 and 2004 together and the total number of projects handled by company B in 2005 and 2007 together?

(A)

120

(B)

150

(C)

130

(D)

180

Answer: (B) 150

64.

Out of the total number of projects handled by company A in 2005 and 2006 together, 20% were governmental projects. What was the total number of governmental projects handled by company A in 2005 and 2006 together?

(A)

108

(B)

122

(C)

128

(D)

116

Answer: (B) 122

65.

If the number of projects handled by company A increased by 20% from 2007 to 2008 and by 5% from 2008 to 2009, what was the number of projects handled by company A in 2009?

(A)

378

(B)

372

(C)

384

(D)

396

Answer: (A) 378

66.

The sides of a triangle are 5 cm, 12 cm and 13 cm. then its area is

(A)

0.0024 m square

(B)

0.0026 m square

(C)

0.003 m square

(D)

0.0015 m square

Answer: (C) 0.003 m square

67.

The length of a rectangle is 1 cm more than its width and its perimeter is 14 cm, then the area of the rectangle is

(A)

16 cm square

(B)

14 cm square

(C)

12 cm square

(D)

10 cm square

Answer: (C) 12 cm square

68.

The perimeter of a rhombus is 100 cm and one of the diagonals is 40 cm. Then the area of the rhombus is

(A)

1000 cm square

(B)

500 cm square

(C)

1200 cm square

(D)

600 cm square

Answer: (D) 600 cm square

69.

A car driver, driving in a fog, passes a pedestrian who was walking at the rate of 2 km/h in the same direction. The pedestrian could see the car for 6 minutes and it was visible to him up to distance of 0.6 km. what was speed of the car?

(A)

30 kmph

(B)

15 kmph

(C)

20 kmph

(D)

8 kmph

Answer: (D) 8 kmph

70.

A cyclist moving on a circular track of radius 100 meters completes one revolution in 2 minutes. What is the average speed of cyclist (approx.)?

(A)

314 m/min

(B)

200 m/min

(C)

300 m/min

(D)

900 m/min

Answer: (A) 314 m/min

71.

Between 5 am and 5 pm of a particular day for how many times are the minute and the hour hands together?

(A)

11

(B)

22

(C)

33

(D)

44

Answer: (A) 11

72.

A and B working separately can do a piece of work in 9 and 15 days respectively. If they work for a day alternately, with A beginning, then the work will be completed in:

(A)

9 days

(B)

10 days

(C)

11 days

(D)

12 days

Answer: (C) 11 days

73.

Two pipes A and B can fill a tank in 36 min. and 45 min. respectively. Another pipe C can empty the tank in 30 min. First A and B are opened After 7 minutes, C is also opened the tank filled up in:

(A)

39 min.

(B)

46 min

(C)

40 min.

(D)

45 min.

Answer: (B) 46 min

74.

Three men A, B, C working together can do a job in 6 hours less time than A alone, in one hour less time than B alone and in one half the time needed by C when working alone. Then A and B together can do the job in:

(A)

$\frac{2}{3}$ hours

(B)

$\frac{3}{4}$ hours

(C)

$\frac{3}{2}$ hours

(D)

$\frac{4}{3}$ hours

Answer: (D) $\frac{4}{3}$ hours

75.

A and B can do a piece of work in 72 days, B and C can do it in 120 days and A and C can do it in 90 days. In how many days all three together can do the work?

(A)

80 days

(B)

100 days

(C)

60 days

(D)

150 days

Answer: (C) 60 days

GENERAL KNOWLEDGE AND AWARNESS

76.

The British India Society was formed in _____

(A)

1832

(B)

1833

(C)

1839

(D)

1874

Answer: (C) 1839

77.

Which revolutionary was sentenced to death on August 17, 1909?

(A)

Rash Bihari Bose

(B)

Bhagat Singh

(C)

Chandra Sekhar Ajad

(D)

Madanlal Dhingra

Answer: (D) Madanlal Dhingra

78.

Who among the following controlled maximum trade in the western coastal region during 17th century?

(A)

Portuguese

(B)

Dutch

(C)

The house of Jagat Seth

(D)

Mulla Abdul Gaffar

Answer: (A) Portuguese

79.

The Second World War started in the year

(A)

1940

(B)

1939

(C)

1941

(D)

1942

Answer: (B) 1939

80.

In how many generations a computer can be classified?

(A)

3

(B)

4

(C)

5

(D)

6

Answer: (C) 5

81.

A guardian never comes to see you in school. You will

(A)

Ignore the child

(B)

Write to the guardian

(C)

Go to meet him yourself

(D)

Start punishing the child

Answer: (C) Go to meet him yourself

82.

To maintain interest among students in class, a teacher should

(A)

Use blackboard

(B)

Discuss

(C)

Tell stories

(D)

Ask question

Answer: (D) Ask question

83.

Atoms are composed of:

(A)

Electrons and protons

(B)

Electrons only

(C)

Protons only

(D)

Electrons and Nuclei

Answer: (D) Electrons and Nuclei

84.

In an atomic explosion, enormous energy is released which is due to

(A)

Conversion of chemical energy into heat energy

(B)

Conversion of mechanical energy into nuclear energy

(C)

Conversion of mass into energy

(D)

Conversion of neutrons into protons

Answer: (C) Conversion of mass into energy

85.

The two elements that are frequently used for making transistors are:

(A)

Boron and Aluminium

(B)

Silicon and Germanium

(C)

Iridium and Tungsten

(D)

Niobium and Columbium

Answer: (B) Silicon and Germanium

86.

The filament of an electric bulb is made of

(A)

Tungsten

(B)

Nichrome

(C)

Graphite

(D)

Iron

Answer: (A) Tungsten

87.

The four important dynasties that stand out prominently in the sixth century (B)(C) are:

(A)

The Guptas, the Ikshvakus, the Pauravas and the Mauryas.

(B)

The Haryankas, the Guptas, the Pauravas and Pradyotas.

(C)

The Haryankas, the Ikshvakus, the Pauravas and the Mauryas.

(D)

The Haryankas, the Ikshvakus, the Pauravas and Pradyotas.

Answer: (D) The Haryankas, the Ikshvakus, the Pauravas and Pradyotas.

88.

The most important republican state during the period of Buddha were:

(A)

The Panchalas

(B)

The Vajjis

(C)

The Kashis

(D)

The Magadhas

Answer: (B) The Vajjis

89.

Income tax in India was introduced by:

(A)

William Jones

(B)

James Wilson

(C)

Nicholas Kaldor

(D)

Mahavir Tyagi

Answer: (B) James Wilson

90.

During which five Year plan was phase of heavy industrialization initiated?

(A)

Second five year plan.

(B)

First five year plan

(C)

Third five year plan

(D)

Fourth five year plan

Answer: (A) Second five year plan.

91.

The disqualification of the Members of Parliament and state legislatures on the ground of defection has been provided in:

(A)

Tenth schedule of the Constitution.

(B)

Eleventh schedule of the Constitution.

(C)

Seventh schedule of the Constitution.

(D)

Twelfth schedule of the Constitution.

Answer: (A) Tenth schedule of the Constitution.

92.

The provisions of Concurrent List, freedom of trade, commerce and intercourse and joint sitting of two Houses of Parliament are borrowed from:

(A)

UK Constitution

(B)

Australian Constitution.

(C)

US Constitution

(D)

Irish Constitution

Answer: (B) Australian Constitution.

93.

What is the meaning of "Hibernate" in Windows XP/Windows 7?

(A)

Restart the Computer in safe mode

(B)

Restart the Computer in hibernate mode

(C)

Shutdown the Computer terminating all the running applications

(D)

Shutdown the Computer without closing the running applications

Answer: (D) Shutdown the Computer without closing the running applications

94.

Page stealing

(A)

Is a sign of an efficient system

(B)

Is taking page frame from other working sets

(C)

Should be the turning goal

(D)

Is taking layer disk space for page in page out

Answer: (B) Is taking page frame from other working sets

95.

Which planet is known as sister of earth?

(A)

Mars

(B)

Venus

(C)

Mercury

(D)

Saturn

Answer: (B) Venus

96.

The study of universe is called:

(A)

Astrology

(B)

Astronomy

(C)

Cosmology

(D)

Universology

Answer: (C) Cosmology

97.

The Hindu Dharma Sangrakshini Sabha was formed in:

(A)

1872

(B)

1883

(C)

1886

(D)

1893

Answer: (D) 1893

98.

The two names which were associates with the publication of the paper ‘Yugantar’ are:

(A)

Barindra kumar Ghose and Arbindo Ghosh

(B)

Bhupendranath Dutta and Arbindo Ghosh

(C)

Barindra kumar Ghose and Bhupendranath Dutta

(D)

Arbindo Ghosh and V.(D) Sawarkar

Answer: (C) Barindra kumar Ghose and Bhupendranath Dutta

99.

National Police Academy is located at

(A)

Bangalore

(B)

Hyderabad

(C)

Abu Road

(D)

Dehradun

Answer: (B) Hyderabad

100.

National Archives is located at?

(A)

Calcutta

(B)

Dehradun

(C)

Bombay

(D)

New Delhi

Answer: (D) New Delhi

LEGAL METROLOGY

101.

Rocks tumbling down a steep slope would be an example of

(A)

Mudflow

(B)

Creep

(C)

Slump

(D)

Rock fall

Answer: (D) Rock fall

102.

Core of sun has density of

(A)

$1.6x10^5$ kg/m^3

(B)

$1x10^{10}$ kg/m^3

(C)

$2.8x10^3$ kg/m^3

(D)

$1.4x10^3$ kg/m^3

Answer: (D) 1.4x103 kg/m3

103.

What is the mass of a cone of radius 1 m and height 3 m having specific gravity 0.1? (Density of water = 1000 kg/m)

(A)

314.16 kg

(B)

425.24 kg

(C)

136.16 kg

(D)

325.24 kg

Answer: (A) 314.16 kg

104.

Which energy changes take place when a pedalling cyclist uses a generator (dynamo) to light his bicycle lamp?

(A)

electrical → chemical → kinetic → light

(B)

kinetic → chemical → light → electrical

(C)

chemical → kinetic → electrical → lightcorrect

(D)

light → electrical → kinetic → chemical

Answer: (C) chemical → kinetic → electrical → lightcorrect

105.

A dog is chasing a hare and the hare runs in a zigzag path. What happens?

(A)

The dig becomes confused

(B)

The dog catches the hare easily

(C)

It becomes difficult for the dog to catch the hare

(D)

The hare dies

Answer: (C) It becomes difficult for the dog to catch the hare

106.

A block of wood measuring 5 m long, 4 m wide and 0.5 m thick is placed on a table. Find the pressure exerted on the table due to the block if the mass of the block is 4000 kg.

(A)

4000 Pa

(B)

400 Pa

(C)

2000 Pa

(D)

200 Pa

Answer: (C) 2000 Pa

107.

Which of the following is known as Re-entrant mouthpiece?

(A)

External Mouthpiece

(B)

Convergent Mouthpiece

(C)

Internal Mouthpiece

(D)

Cylindrical Mouthpiece

Answer: (C) Internal Mouthpiece

108.

Heat does not spontaneously flow from a colder body to a hotter one. Which of the following thermodynamics law states this?

(A)

Zeroth law of thermodynamics

(B)

First law of thermodynamics

(C)

Second law of thermodynamics

(D)

Third law of thermodynamics

Answer: (C) Second law of thermodynamics

109.

Because of which one of the following factors, clouds do not precipitate in deserts?

(A)

Low pressure

(B)

Low humidity

(C)

High wind velocity

(D)

High temperature

Answer: (B) Low humidity

110.

What is not the condition for the equilibrium in the determination of the equations of the fluid pressures?

(A)

$\sum Fx=0$

(B)

$\sum Fy=0$

(C)

$\sum Fz=0$

(D)

$\sum F\neq 0$

Answer: (D) $\sum F\neq 0$

111.

Mass is a _____

(A)

Scalar quantity

(B)

Vector quantity

(C)

Free quantity

(D)

Dependent quantity

Answer: (A) Scalar quantity

112.

An Athlete runs over a certain distance before taking a long jump, because due to this:

(A)

His mass gets decreases, so he can jump over a long distance

(B)

He gains inertia of motion so he can take a longer jump

(C)

He gets the power of God so he can take a longer jump

(D)

He follows law of conservation of linear momentum.

Answer: (B) He gains inertia of motion so he can take a longer jump

113.

When a bus starts suddenly the passengers standing on it, Lean backwards in the bus. This is an example of:

(A)

Newton’s first law

(B)

Newton’s second law

(C)

Newton’s third law

(D)

Faraday’s law

Answer: (A) Newton’s first law

114.

The pressure of the water at the bottom of the pond is _____ at the surface of the pond.

(A)

Higher than

(B)

Lower than

(C)

Same

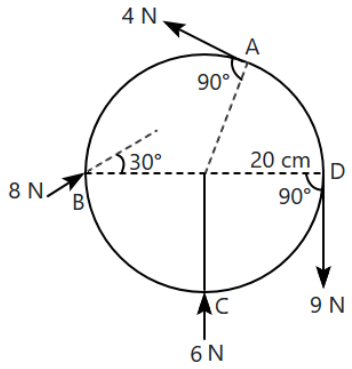
(D)

either lower or higher

Answer: (A) Higher than

115.

A wheel with a radius of 20 cm has forces applied to it as shown in the figure. The torque produced by the forces of 4 N at A, 8N at B, 6N at C, and 9N at D, at the angles indicated, is:



(A)

5.4 N-m anticlockwise

(B)

1.80 N-m clockwise

(C)

2.0 M-m clockwise

(D)

3.6 n-m clockwise

Answer: (B) 1.80 N-m clockwise

116.

A 100 m tall building receives superheated steam at 200 kPa at ground and leaves saturated vapour from the top at 125 kPa by losing 110 kJ/kg of heat. What should be the minimum inlet temperature at the ground of the building so that no steam will condense inside the pipe at steady state?

(A)

363.54°C

(B)

263.54°C

(C)

163.54°C

(D)

162.54°C

Answer: (C) 163.54°C

117.

Which of the following does not affect visibility on the ground?

(A)

Mist

(B)

Fog

(C)

haze

(D)

dew

Answer: (D) dew

118.

Two bodies of 2 kg & 4 kg are moving with velocities 20 m/s and 10 m/s respectively towards each other under mutual gravitational attraction. Find the velocity of their centre of mass in m/s.

(A)

5

(B)

6

(C)

8

(D)

Zero

Answer: (D)Zero

119.

The relative density of a substance is 13.6 and its volume is 20 cm3. What is its mass?

(A)

272 g

(B)

2.72 g

(C)

27.2 g

(D)

0.06 g

Answer: (A) 1. 272 g

120.

Density of water is

(A)

1 gm/cm^3

(B)

1000 Kg/m^3

(C)

62.43 lb/ft^3

(D)

26.43 lb/ft^3

Answer: (A) 1 gm/cm^3

121.

At what depth from surface of water, the pressure will be equal to three times the atmosphere pressure? Given atmospheric pressure = 10 N/cm^2 and g = 9.8 m/s^2.

(A)

20.4 m

(B)

5.6 m

(C)

2.8 m

(D)

10.2 m

Answer: (A) 20.4 m

122.

A glass bottle filled with liquid will break at the bottom if a stopper is forced into its open end as per

(A)

Hydrostatic law

(B)

Pascal's law

(C)

Gravitational law

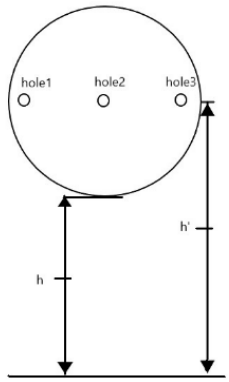
(D)

Bernoulli’s law

Answer: (B)Pascal’s law

123.

A spherical balloon filled with water is suspended at height h from the ground. Three holes are made in the balloon simultaneously with a needle such that the height of each hole is the same from the ground. As a result, water starts flowing from the holes down. Water from which hole would reach the ground first?



(A)

1

(B)

2

(C)

3

(D)

Water from all three will reach at the same time.

Answer: (D) Water from all three will reach at the same time.

124.

A container of depth *d* has a weighing machine of dimensions *l* × *b* at the bottom. If the thickness of the weighing machine is *h*, then what will be the value of *d*, if the weighing machine gives a readings as W newton? (The density of the liquid in the container is *ρ*

(A)

h + $\frac{W}{\rho glb}$

(B)

h - $\frac{2W}{\rho glb}$

(C)

h - $\frac{W}{\rho glb}$

(D)

h + $\frac{2W}{\rho glb}$

Answer: (C) h - $\frac{W}{\rho glb}$

125.

If the earth suddenly stops rotating, then the value g at the equator, will___

(A)

decrease

(B)

increase

(C)

remain the same

(D)

be zero

Answer: (B) increase

126.

If g is the acceleration due to gravity on the surface of the earth, the gain in the potential energy of a body of mass m raised from the surface of the earth to a height equal to the radius R of the earth, is____

(A)

mgR

(B)

1/2 mgR

(C)

1/4 mgR

(D)

2 mgR

Answer: (B) 1/2 mgR

127.

A satellite is orbiting very close to the surface of the earth. Its periodic time depends only upon the_____

(A)

mass of the earth

(B)

the density of the earth

(C)

mass of the satellite

(D)

the radius of the earth

Answer: (D) the radius of the earth

128.

For a satellite revolving around the earth_____

(A)

its P.E. and K.E. are +ve and the total energy is negative

(B)

its P.E. and K.E. are -ve but the total energy is positive

(C)

its P.E. and total energy are negative but the K.E. is positive

(D)

its P.E. and total energy are positive but its K.E. is negative

Answer: (C) its P.E. and total energy are negative but the K.E. is positive

129.

For a geostationary satellite, which one of the following statements is wrong?

(A)

It remains at a fixed height

(B)

Its period of rotation is the same as that of the earth

(C)

Its direction of motion is from west to east

(D)

Its orbital plane is inclined at a small angle to the axis of rotation of the earth.

Answer: (D) Its orbital plane is inclined at a small angle to the axis of rotation of the earth.

130.

The period of an earth satellite is 5 h. If the distance between the earth and the satellite is increased to 4 times its original value, then the new period of the satellite will be_____

(A)

20 h

(B)

30 h

(C)

40 h

(D)

80 h

Answer: (C) 40 h

131.

A wire of diameter 7 mm and length 1 m is stretched within the elastic limit by the 77 kN pull. If the elongation of the wire for this force is noted as 2 mm, then find
Young's modulus of elasticity for the material of the wire.

(A)

10^6 Pa

(B)

7×10^6 Pa

(C)

10^5 Pa

(D)

10^3 Pa

Answer: (A) 10^6 Pa

132.

Which of the following is the units of electric resistivity?

(A)

Ohms

(B)

Ohms meters

(C)

Ohms Seconds

(D)

Ohms Kg

Answer: (B) Ohms meters

133.

Mercury thermometers can be used to measure temperatures upto

(A)

100°C

(B)

212°C

(C)

360°C

(D)

500°C

Answer: (C)360°C

134.

Which one of the following electricity meters used in DC power distribution systems?

(A)

Electrolytic meter

(B)

Commutator meter

(C)

Mercury meter

(D)

DC watt hour meter

Answer: (D) DC watt hour meter

135.

The forces which meet at one point, but their lines of action do NOT lie on the same plane are known as:

(A)

Coplanar non - concurrent forces

(B)

Coplanar concurrent forces

(C)

Non - coplanar concurrent forces

(D)

Non - coplanar non concurrent forces

Answer: (C) Non - coplanar concurrent forces

136.

The moment of a force about any point is equal to the algebraic sum of moments of its components about that point is stated by:

(A)

Lufkin’s principle

(B)

Varignon’s principle

(C)

Henry’s principle

(D)

Avogadro’s principle

Answer: (B) Varignon’s principle

137.

Ram has two spheres of same size with, A of density 300kg/m^3 and B of density 8900kg/m^3 placed in a liquid of density 1500kg/m^3. Which block will float in liquid and buoyant force on blocks will be.

(A)

Both will float with the same buoyant force

(B)

Only sphere A will float with a buoyant force greater than B

(C)

Only sphere B will float with a buoyant force greater than A

(D)

Only sphere A will float with the same buoyant force

Answer: (D) Only sphere A will float with the same buoyant force

138.

A cube of the side length of 0.1 m is half-submerged into a bucket full of water. What is the mass of the cube?

(A)

0.05 Kg

(B)

0.5 Kg

(C)

1.5 Kg

(D)

2.5 Kg

Answer: (B) 0.5 Kg

139.

Specific volume is reciprocal of:

(A)

mass

(B)

area

(C)

volume

(D)

mass density

Answer: (D) mass density

140.

Hydrometer is an instrument used for measuring

(A)

relative humidity

(B)

pressure of water

(C)

volume of liquids

(D)

specific gravity

Answer: (D) specific gravity

141.

The solid angles are measured in

(A)

degrees

(B)

grades

(C)

radians

(D)

steradians.

Answer: (D) steradians.

142.

100 kN/m2 pressure is equal to

(A)

1 atm

(B)

1 bar

(C)

1 m bar

(D)

1 mm Hg

Answer: (B) 1 bar

143.

In SI system, luminous intensity is measured in

(A)

Ampere

(B)

Kelvin

(C)

Candela

(D)

Voltage

Answer: (C) candela

144.

1fermi =

(A)

10-15m

(B)

10-13m

(C)

10-12m

(D)

10-16m

Answer: (A) 10-15m

145.

According to the Kelvin scale, the frozen point of water is _____?

(A)

273.15K

(B)

373.15K

(C)

474.15K

(D)

573.15K

Answer: (A) 273.15K

146.

Conversion of temperature from celsius to kelvin is, K=____?

(A)

C+273.15

(B)

C-273.15

(C)

C/273.15

(D)

C*273.15

Answer: (A) C+273.15

147.

A hollow iron pipe is 21 cm long and its external diameter is 8 cm. If the thickness of the pipe is 1 cm and iron weights 8 g/cm, then the weight of the pipe is:

(A)

3.6 kg

(B)

3.696 kg

(C)

36 kg

(D)

36.9 kg

Answer: (B) 3.696 kg

148.

A boat having a length 3 m and breadth 2 m is floating on a lake. The boat sinks by 1 cm when a man gets on it. The mass of the man is:

(A)

12 kg

(B)

60 kg

(C)

72 kg

(D)

96 kg

Answer: (B) 60 kg

149.
What is the main characteristic of random errors used to determine maximum measuring error?

(A)

Cumulative error

(B)

Standard deviation

(C)

Variance

(D)

Median

Answer: (B) Standard deviation

150.

What is the relation between maximum error for a measurement method and standard deviation in the case of random errors?

(A)

Maximum error equal to standard deviation

(B)

Maximum error is two times of standard deviation

(C)

Maximum error is three times of standard deviation

(D)

Maximum error is four times of standard deviation

Answer: (C) Maximum error is three times of standard deviation