General English

1.

If you work really hard, you _____ good score in the upcoming examination.

(A)

will get

(B)

will got

(C)

would get

(D)

would got

Answer: (A) will get

2.

When she was in the university, she _____ wake up early in the morning.

(A)

should

(B)

would

(C)

will

(D)

would have

Answer: (B) would

3.

He devotes much of his time _____ for the future.

(A)

to planning

(B)

to plan

(C)

plan

(D)

planning

Answer: (A) to planning

4.

She took lessons _____ how to swim.

(A)

learn

(B)

for learning

(C)

to learn

(D)

learning

Answer: (C) to learn

5.

The class teacher _____ Anna move to another chair.

(A)

allows

(B)

allowed

(C)

let

(D)

permitted

Answer: (C) let

6.

Doesn’t it (intrigue) you. The word in the brackets means:

(A)

Arouse interest

(B)

Pleases

(C)

Offends

(D)

Tiredness

Answer: (A) Arouse interest

7.

The branches of trees were (fondling) the sky. The word in brackets means:

(A)

Moving

(B)

Leaning

(C)

Touching

(D)

Reaching

Answer: (C) Touching

8.

What is the synonym of “feisty”?

(A)

lessen

(B)

passive

(C)

spiritless

(D)

fearless

Answer: (D) fearless

9.

What is the synonym of “Baffle”?

(A)

Confuse

(B)

Confirm

(C)

Clear

(D)

Enlighten

Answer: (A) Confuse

10.

What is the synonym of “Countenance”?

(A)

Tolerate

(B)

Impatience

(C)

Confrontation

(D)

Conflict

Answer: (A) Tolerate

11.

What is the antonym of “Adumbrate”?

(A)

Suggest

(B)

Hint

(C)

Insinuate

(D)

Abduct

Answer: (D) Abduct

12.

What is the antonym of “Equivocal”?

(A)

dubious

(B)

vague

(C)

ambiguous

(D)

clear

Answer: (D) clear

13.

What is the antonym of “Intransigent”?

(A)

Energetic

(B)

Obedient

(C)

Faithful

(D)

Flexible

Answer: (D) Flexible

14.

What is the antonym of “Indolent”?

(A)

Sanity

(B)

Cheap

(C)

Energetic

(D)

Faithful

Answer: (C) Energetic

15.

What is the antonym of “PROHIBIT”?

(A)

Allow

(B)

Outlaw

(C)

Failure

(D)

Not Allow

Answer: (A) Allow

16

Anaya _____ in her remote colony since January 1998.

(A)

was living

(B)

has lived

(C)

has been living

(D)

lived

Answer: (C) has been living

17

Yesterday the weather was not good; it was _____ pleasant.

(A)

fairly

(B)

a little

(C)

rather

(D)

to some extent

Answer: (A) fairly

18.

If he had been careful, the accident _____.

(A)

were avoided

(B)

might have avoided

(C)

could have been avoided

(D)

would be avoided

Answer: (C) could have been avoided

19.

Let her _____ to leave the classroom at once.

(A)

have been told

(B)

told

(C)

be told

(D)

tell

Answer: (C) be told

20.

There were _____ people in the hall, so we were not completely alone.

(A)

very little

(B)

little

(C)

fewer

(D)

a few

Answer: (D) a few

(21-25)

Read the following passage carefully and answer the given questions.

Unemployment is a key index of economic slack and lost output. But it is not distributed in proportion to people's ability to face it. It affects painfully the young, women, the unskilled as well as semiskilled, the black person, the older people, and underemployed people in rural areas.

The unemployment among specific groups means greater costs to society that can be calculated easily in hours of idleness or dollars of income lost. The other costs include disturbance of the careers and increased juvenile delinquency.

There is another cost of unemployment. For labour's, continuous unemployment results in "share-the-work" pressures for shorter hours and escalate resistance to technological advances. On business side, the shortcomings of markets result in attempts to raise prices to cover increased costs and to pressures for protection against buying products from abroad

QUESTIONS

21.

Unemployment is an index of?

(A)

the employment rate

(B)

economic slack and lost output

(C)

diminished resources

(D)

over utilization of capacity

Answer: (B) economic slack and lost output

22.

According to the passage, the unemployment falls most heavily upon all except the?

(A)

unskilled worker

(B)

semiskilled worker

(C)

black people

(D)

white middle class

Answer: (D) white middle class

23.

The cost to society of unemployment can be measured by all except?

(A)

disruption of careers

(B)

idleness

(C)

the death rate

(D)

lost incomes

Answer: (C) the death rate

24.

Serious unemployment results in labor groups to demand?

(A)

more jobs with shorter hours

(B)

“no fire” policies

(C)

higher wages to those employed

(D)

cost-cutting solutions

Answer: (A) more jobs with shorter hours

25.

A normal business reaction to a recession is to press for?

(A)

restrictive business practices

(B)

protection against imports

(C)

government action

(D)

higher unemployment insurance

Answer: (B) protection against imports

General Intelligence and Reasoning

26.

If SUMMER is coded RUNNER, the code for WINTER is

(A)

SUITER

(B)

VIOUER

(C)

WALKER

(D)

SUFFER

Answer: (B) VIOUER

27.

If MIND becomes KGLB and ARGUE becomes YPESC, then what will DIAGRAM be in that code?

(A)

BGYEPYK

(B)

BGYPYEK

(C)

GLPEYKB

(D)

LKBGYPK

Answer: (A) BGYEPYK

28.

In a certain language PRACTICE is coded as PICCTRAE, how is FLAMES coded in that code?

(A)

FEMALS

(B)

FALMES

(C)

FMELAS

(D)

FALEMS

Answer: (C) FMELAS

29.

Find out the missing number in the following sequence: 1, 3, 3, 6, 7, 9, ?, 12, 21.

(A)

10

(B)

11

(C)

12

(D)

13

Answer: (D) 13

30.

In the series 357, 363, 369, …. what will be the 10th term?

(A)

405

(B)

411

(C)

413

(D)

417

Answer: (B) 411

31.

How many terms are there in the series 201, 208, 215, ….., 369?

(A)

23

(B)

24

(C)

25

(D)

26

Answer: (C) 25

32.

Two bus tickets from city A to B and three tickets from city A to C cost Rs. 77 but three tickets from city A to B and two tickets from city A to C cost Rs. 73. What are the fares for cities B and C from A?

(A)
Rs. 4, Rs. 23

(B)

Rs. 13, Rs. 17

(C)

Rs. 15, Rs. 14

(D)

Rs. 17, Rs. 13

Answer: (B) Rs. 13, Rs. 17

33.

A number of friends decided to go on a picnic and planned to spend Rs. 96 on eatables. Four of them, however, did not turn up. As a consequence, the remaining ones had to contribute Rs. 4 each extra The number of those who attended the picnic was

(A)

8

(B)

12

(C)

16

(D)

24

Answer: (A) 8

34.

A, B, C, D and E play a game of cards. A says to B, "If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has." A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have?

(A)

22

(B)

23

(C)

25

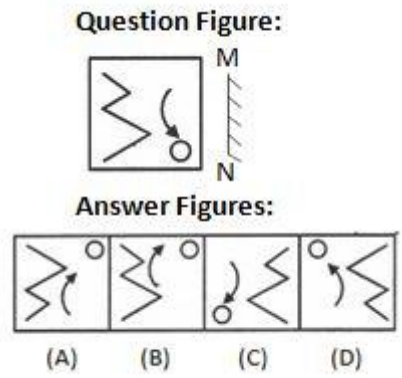
(D)

35

Answer: (C) 25

35.

If a mirror is placed on the line MN, then which of the answer figures is the right image of the given question figure?



(A)

A

(B)

B

(C)

C

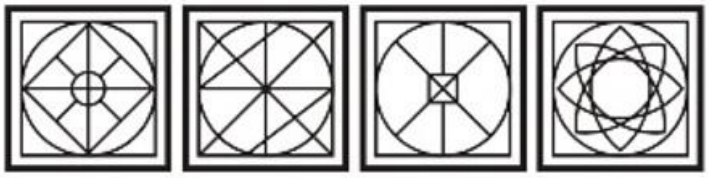
(D)

D

Answer: (C) C

36.

From the given answer figures, select the one in which the question figure in hidden/embedded



(A)

1

(B)

2

(C)

3

(D)

4

Answer: (B) 2

37.

What is the sum of numbers on any two adjacent faces of a standard six-faced dice?

(A)

4

(B)

7

(C)

9

(D)

11

Answer: (C) 9

38.

If a dice is thrown, what is the probability of getting a number greater than 4?

(A)

1/3

(B)

2/3

(C)

1/6

(D)

5/6

Answer: (D) 1/3

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.

Looking at a portrait of a man, Sanjay said, "His mother is the wife of my father's son. Brothers and sisters I have none." At whose portrait was Sanjay Looking.

(A)

His son

(B)

His nephew

(C)

His cousin

(D)

His uncle

Answer: (A) His son

41.

A man said to a lady, "The son of your only brother is the brother of my wife." What is the lady to the man.

(A)

Mother

(B)

Sister

(C)

Sister of father-in-law

(D)

Grandfather

Answer: (C) Sister of father-in-law

42.

If A is the brother of B and K, D is the mother of B and E is the father of a Which one of the following statements is not definitely true?

(A)

B is the brother of K

(B)

A is the father of K

(C)

A is the son of D

(D)

D is the wife of E

Answer: (B) A is the father of K

43.

Choose the word which is different from the rest.

(A)

Cap

(B)

Turban

(C)

Helmet

(D)

Veil

Answer: (D) Veil

44.

Book : Cover :: Painting : ?

(A)

Example

(B)

Wall

(C)

Colour

(D)

Frame

Answer: (D) Frame

45.

The sum of two numbers is 15 and the sum of their squares is 113. find the numbers.

(A)

3 and 4

(B)

4 and 6

(C)

7 and 8

(D)

8 and 10

Answer: (C) 7 and 8

46.

A boy multiplied 987 by a certain number and obtained 559981 as his answer. If in the answer both 98 are wrong and the other digits are correct, then the correct answer would be:

(A)

553681

(B)

555181

(C)

555681

(D)

556581

Answer: (C) 555681

47.

Arrange the words given below in a meaningful sequence.
1. Police
2. Punishment
3. Crime
4. Judge
5. Judgement

(A)

3, 1, 2, 4, 5

(B)

1, 2, 4, 3, 5

(C)

5, 4, 3, 2, 1

(D)

3, 1, 4, 5, 2

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

48.

Arrange the words given below in a meaningful sequence.
1. Family
2. Community
3. Member
4. Locality
5. Country

(A)

3, 1, 2, 4, 5

(B)

3, 1, 2, 5, 4

(C)

3, 1, 4, 2, 5

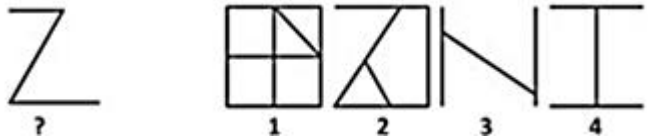
(D)

3, 1, 4, 5, 2

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

49.

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



(A)

1

(B)

2

(C)

3

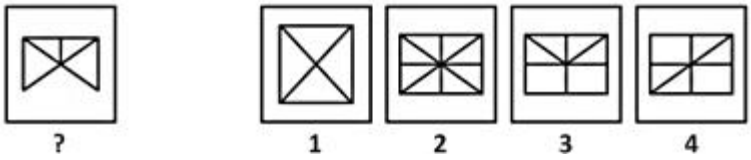
(D)

4

Answer: (B) 2

50.

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



(A)

1

(B)

2

(C)

3

(D)

4

Answer: (B) 2

Numerical Ability

51.

Which of the following numbers does not lie between $\frac{4}{5}$ and $\frac{7}{13}$ =?

(A)

$\frac{1}{2}$

(B)

$\frac{2}{3}$

(C)

$\frac{3}{4}$

(D)

$\frac{5}{7}$

Answer: (A) $\frac{1}{2}$

52.

383 × 38 × 3.8 =?

(A)

55305.2

(B)

56305.4

(C)

57305.6

(D)

58305.8

Answer: (A) 55305.2

53.

4.036 divided by 0.04 gives:

(A)

1.009

(B)

10.09

(C)

100.9

(D)

10.9

Answer: (C) 100.9

54.

A company has 12 machines of equal efficiency in its factory. The annual manufacturing expenses are Rs. 24,000 and the establishment charges are Rs. 10,000. The annual output of the company is Rs. 48,000. The annual output and manufacturing costs are directly proportional to the no. of machines while the shareholders get the 10% profit, which is directly proportional to the annual output of the company. If 8.33% of machines remained close throughout the year. Then the percentage decrease in the amount of shar holders is:

(A)

14.28%

(B)

11.11%

(C)

16.66%

(D)

8.33%

Answer: (A) 14.28%

55.

Every month a man consumes 25 kg rice and 9 kg wheat. The price of rice is 20% of the price of wheat and thus he spends total Rs. 350 on the rice and wheat per month. If the price of wheat is increased by 20% then what is the percentage reduction of rice consumption for the same expenditure of Rs. 350? Given that the price of rice and consumption of wheat is constant:

(A)

40%

(B)

25%

(C)

36%

(D)

24%

Answer: (C) 36%

56.

The price of raw materials has gone up by 15%, labor cost has also increased from 25% of the cost of raw material to 30% of the cost of raw material. By how much percentage should there be reduction in the usage of raw materials so as to keep the cost same?

(A)

28%

(B)

17%

(C)

27%

(D)

24%

Answer: (B) 17%

57.

The ratio of the present ages of Ragini and Ravi is 8:11. Twenty years hence the ratio of their ages will be 4:5. What will be the ratio of their ages thirty-five years hence?

(A)

6:5

(B)

6:7

(C)

5:8

(D)

5:6

Answer: (D) 5:6

58.

Akshay has Rs. 7000 which he wants to donate in 4 NGOs in ratio 2:3:4:5. If on the day of donation, he decided to donate only 90% of what he had decided earlier. Find least amount donated to a particular NGO?

(A)

Rs. 1800

(B)

Rs. 900

(C)

Rs. 1350

(D)

Rs. 2250

Answer: (B) Rs. 900

59.

In a school, the ratio of boys and girls in 2020 was 14: 11. Next year no. of boys and girls increased by 10% and 15% respectively. If total no. of students in 2021 are 561, then find the no. of boys in school in 2020.

(A)

280

(B)

240

(C)

250

(D)

220

Answer: (A) 280

60.

Of three numbers, the first is twice the second and the second is twice the third the average of the reciprocal of the numbers is 7/72. The numbers are:

(A)

16, 8, 4

(B)

20, 10, 5

(C)

24, 12, 6

(D)

36, 18, 9

Answer: (C) 24, 12, 6

61.

The average of 19 results is 122. If the average of first 10 results is 92 and that of the last 10 results is 149, then what will be the 10 result?

(A)

0

(B)

92

(C)

82

(D)

111

Answer: (B) 92

62.

Among three numbers, the second is thrice the first and also 6 times the third If the average of the three numbers is 63, then the largest number is:

(A)

115

(B)

126

(C)

96

(D)

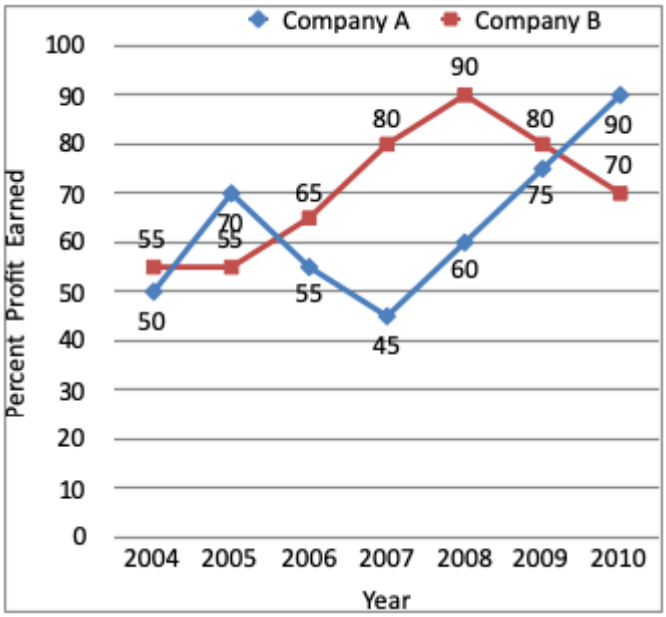
168

Answer: (B) 126

(63 – 65)

Study the following graphs carefully and answer the questions that follow:
Percent Profit Earned by Companies A and B Producing Electronic Goods Over the Years.
Percent Profit = (Profit Earned Total Investment×100) %

Profit Earned = (Total income) - (Total Investment in the Year)
Direction image of Line Chart chapter



63.

If the amount invested by the two companies in 2005 were equal, what was the ratio of the total income of Company A to that of B on 2005?

(A)

31 : 33

(B)

33 : 31

(C)

34 : 31

(D)

14 : 11

Answer: (C) 34 : 31

64.

If the income of Company A in 2007 and that in 2008 were equal and the amount invested in 2007 was Rs. 12 lakhs, what was the amount invested in 2008?

(A)

Rs. 1087500

(B)

Rs. 1085700

(C)

Rs. 1245000

(D)

Rs. 1285000

Answer: (A) Rs. 1087500

65.

If each of the companies A and B invested Rs. 25 lakhs in 2010, what was the average profit earned by the two companies?

(A)

Rs. 18 lakhs

(B)

Rs. 22.5 lakhs

(C)

Rs. 17.5 lakhs

(D)

Rs. 20 lakhs

Answer: (D) Rs. 20 lakhs

66.

The ratio of the area of a square to that of the square drawn on its diagonal is

(A)

1 : 1

(B)

1 : 2

(C)

1 : 3

(D)

1 : 4

Answer: (B) 1 : 2

67.

A room is rectangular in shape and has a flat roof. It is 10 m wide, 13 m long and 5 m high. It is to be painted inside and outside and on the floor but not on the ceiling, then the total area to be painted is

(A)

360 m square

(B)

460 m square

(C)

590 m square

(D)

490 m square

Answer: (C) 590 m square

68.

The sides of an equilateral triangle are (2a – b) cm, (a + 3b) cm and (2a – 2b + 1) cm then the perimeter of the triangle is

(A)

3 cm

(B)

12 cm

(C)

15 cm

(D)

21 cm

Answer: (D) 21 cm

69.

In a race of 200 meters, B can give a start of 10 meters to A, and C can give a start of 20 meters to B The starts that C can gives to A, in the same race is:

(A)

30 meters

(B)

25 meters

(C)

29 meters

(D)

27 meters

Answer: (C) 29 meters

70.

In a 1-kilometre race, A can beat B by 30 meters, while in a 500-meter race B can beat C by 25 meters. By how many meters will A beats C in a 100-meter race?

(A)

7.85

(B)

7.25

(C)

7.15

(D)

7.03

Answer: (A) 7.85

71.

A plane left half an hour later than the scheduled time and in order to reach its destination 1500 kilometres away in time, it had to increase its speed by 33.33 percent over its usual speed Find its increased speed

(A)

250 kmph

(B)

500 kmph

(C)

750 kmph

(D)

1000 kmph

Answer: (D) 1000 kmph

72.

To complete a piece of work A and B take 8 days, B and C 12 days. A, B and C take 6 days. A and C will take:

(A)

7 Days

(B)

7.5 Days

(C)

8 Days

(D)

8.5 Days

Answer: (C) 8 Days

73.

Two pipes can fill the cistern in 10hr and 12 hr respectively, while the third empty it in 20hr. If all pipes are opened simultaneously, then the cistern will be filled in:

(A)

7.5 hr

(B)

8 hr

(C)

8.5 hr

(D)

10 hr

Answer: (A) 7.5 hr

74.

Three taps A, B and C together can fill an empty cistern in 10 minutes. The tap A alone can fill it in 30 minutes and the tap B alone in 40 minutes. How long will the tap C alone take to fill it?

(A)

16 minutes

(B)

24 minutes

(C)

32 minutes

(D)

40 minutes

Answer: (B) 24 minutes

75.

A can finish a piece of work in 18 days and B can do the same work in half of the time taken by A Then working together what part of the same work they can finish in a day?

(A)

$\frac{1}{6}$

(B)

$\frac{2}{5}$

(C)

$\frac{1}{9}$

(D)

$\frac{2}{7}$

Answer: (A) $\frac{1}{6}$

GENERAL KNOWLEDGE AND AWARNESS

76.

The first Viceroy of India was

(A)

Lord Canning

(B)

Lord Hardinge

(C)

Lord Dalhousie

(D)

Lord Elgin

Answer: (A) Lord Canning

77.

The East India Association was set up in:

(A)

1866

(B)

1857

(C)

1836

(D)

1885

Answer: (A) 1866

78.

The office of Governor-General of India was created by the

(A)

Government of India Act, 1833

(B)

Government of India Act, 1858

(C)

Charter Act, 1833

(D)

Charter Act, 1813

Answer: (C) Charter Act, 1833

79.

Who was the US President during World War II

(A)

Winston Churchill

(B)

Joseph Stalin

(C)

Franklin D Roosevelt

(D)

Harry S Truman

Answer: (C) Franklin D Roosevelt

80.

The basic architecture of computer was developed by

(A)

John Von Neumann

(B)

Charles Babbage

(C)

Blaise Pascal

(D)

Garden Moore

Answer: (A) John Von Neumann

81.

'National council of educational research and training' was established in

(A)

1961

(B)

1962

(C)

1963

(D)

1964

Answer: (A) 1961

82.

Essay type test are not reliable because

(A)

Their answers are different

(B)

Their results are different

(C)

Their checking is affected by examiner's mood

(D)

Their responding styles are different

Answer: (C) Their checking is affected by examiner's mood

83.

Which of the following is used as a moderator in nuclear reactor?

(A)

Thorium

(B)

Graphite

(C)

Radium

(D)

Ordinary water

Answer: (D) Ordinary water

84.

Which among the following is a positively charged particle emitted by a radioactive element?

(A)

Beta ray

(B)

Alpha ray

(C)

Cathode ray

(D)

Gamma ray

Answer: (B) Alpha ray

85.

What is laughing gas?

(A)

Nitrous Oxide

(B)

Carbon monoxide

(C)

Sulphur dioxide

(D)

Hydrogen peroxide

Answer: (A) Nitrous Oxide

86.

Actinides are the elements with atomic numbers from

(A)

97 to 104

(B)

101 to 115

(C)

89 to 103

(D)

36 from 43

Answer: (C) 89 to 103

87.

Who attained Kaivalya (i.e., the supreme knowledge and final deliverance from the bonds of pleasure and pain) at the age of 42?

(A)

Rishabhanath

(B)

Aristhanemia

(C)

Parsva Natha

(D)

Vardhamana Mahavira

Answer: (D) Vardhamana Mahavira

88.

The oldest among the spoken literary languages of South India is:

(A)

Kannada

(B)

Malayalam

(C)

Telugu

(D)

Tamil Language

Answer: (D) Tamil Language

89.

Who gave the call for Evergreen Revolution?

(A)

M. S. Swaminathan

(B)

Verghese Kurien

(C)

Tribhuvandas Patel

(D)

H. M. Dalaya

Answer: (A) M. S. Swaminathan

90.

The Ministry and programme Implementation - as an independent Ministry came into existence on:

(A)

October 15, 1999

(B)

January 15, 1998

(C)

September 15, 1999

(D)

June 15, 1999

Answer: (A) October 15, 1999

91.

By which Constitutional Amendment Act was the number of Lok sabha seats increased from 525 to 545?

(A)

The Twentieth Amendment Act, 1966.

(B)

The Forty-second Amendment Act, 1976.

(C)

The Forty-fourth Amendment Act, 1978.

(D)

Thirty-first Constitutional Amendment Act, 1973.

Answer: (D) Thirty-first Constitutional Amendment Act, 1973.

92.

The first Backward Class commission was appointed in 1953 under the chairmanship of :

(A)

Deepak Katole

(B)

S.K.Kharventhan

(C)

Kaka Kalelkar

(D)

Shakeel-uz-Zaman Ansari

Answer: (C) Kaka Kalelkar

93.

The category of operating system that you most likely have running on your PDA computer is a ..... Operating system

(A)

Real time

(B)

Single user, single task

(C)

Single user, multitask

(D)

Multiuser, multitask

Answer: (B) Single user, single task

94.

Running multiple programs at the same time is called:

(A)

Multitasking

(B)

Foreground tasking

(C)

Single tasking

(D)

Symmetric

Answer: (A) Multitasking

95.

The layer of ocean water between the depth zone of 300 m- 1000 m characterized by sharp change of temperature in the vertical section of sea water is called:

(A)

Isoline

(B)

Insiline

(C)

Thermoarea

(D)

Thermocline

Answer: (D) Thermocline

96.

The planet which has maximum number of satellites is:

(A)

Saturn

(B)

Venus

(C)

Jupiter

(D)

Mars

Answer: (A) Saturn

97.

Doctrine of Passive Resistance was published in the daily Vande Mataram in:

(A)

April 1907

(B)

April 1906

(C)

April 1905

(D)

April 1904

Answer: (A) April 1907

98.

Who said “Curzon’s partition of Bengal gave unwitting initiative to events of such magnitude which returned many years later to port with the cargo of freedom”?

(A)

Syed Hasan Imam

(B)

Dr. S.Gopal

(C)

M.A. Ansari

(D)

Bharat Kumar

Answer: (B) Dr. S.Gopal

99.

The world famous 'Khajuraho' sculptures are located in

(A)

Gujarat

(B)

Madhya Pradesh

(C)

Orissa

(D)

Maharashtra

Answer: (B) Madhya Pradesh

100.

'Kandla' is situated on the Gulf of Kachh is well known for which of the following?

(A)

Export Processing Zone

(B)

Centre for Marine Food products

(C)

Cutting and polishing of diamonds

(D)

Ship breaking industry

Answer: (A) Export Processing Zone

LEGAL METROLOGY

101.

What type of mass movement would be caused by ice melting on a volcano after an eruption

(A)

Creep

(B)

Slump

(C)

Lahar

(D)

Mudflow

Answer: (C) Lahar

102.

Average sun density is equal to

(A)

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

(B)

$2.8x10^3$ kg/m^3

(C)

$1.4x10^3$ kg/m^3

(D)

$1.6x10^5$ kg/m^3

Answer: (C) $1.4x10^3$ kg/m^3

103.

What is the average mass of a substance with specific gravity 10, and its volume varies with time as V = t/500, from t = 2, to t = 0 seconds? (Density of water = 1000 kg/m)

(A)

25

(B)

20

(C)

40

(D)

75

Answer: (B) 20

104.

A teacher carries a stack of books weighing a total of 30N through 2m. What is the work done by the teacher?

(A)

60 Jcorrect

(B)

15 J

(C)

50 J

(D)

600 J

Answer: (A) 60 J

105.

When we shake the branch of a tree, its fruits and dry leaves fall down. This is an example of _____

(A)

Inertia of motion

(B)

Inertia of rest

(C)

Inertia of direction

(D)

Newton’s third law of motion

Answer: (B) Inertia of rest

106.

A small table weighing 40 N stands on four legs, each having an area of 0.001 m20.001 m2. What is the pressure of the table on the floor?

(A)

40000N m^{-2}

(B)

400N m^{-2}

(C)

1000N m^{-2}

(D)

10000N m^{-2}

Answer: (D) 10000N m^{-2}

107.

_____ torsion is produced when twisting couple coincides with the axis of the shaft.

(A)

Exact

(B)

Pure

(C)

Nominal

(D)

Mild

Answer: (B) Pure

108.

Which of the following is a thermodynamics law?

(A)

Zeroth law of thermodynamics

(B)

Faraday’s Law of thermodynamics

(C)

Ideal Gas Law of thermodynamics

(D)

Boyle’s Law of thermodynamics

Answer: (C) Ideal Gas Law of thermodynamics

109.

Amount of water vapour in air is regarded as

(A)

water vapour

(B)

Humidity

(C)

Mildness

(D)

Pressure

Answer: (B) Humidity

110.

For the determination of the fluid pressure the body to be experimented is _____ in the liquid.

(A)

Immersed

(B)

Non-immersed

(C)

Parallel

(D)

Normal

Answer: (A) Immersed

111.

Mass can be measured using _____

(A)

Beam balance

(B)

Clock

(C)

Our hands

(D)

Water

Answer: (A) Beam balance

112.

The law which defines force is:

(A)

Newton’s third law

(B)

Newton’s first law

(C)

Newton’s second law

(D)

Faraday’s law

Answer: (B) Newton’s first law

113.

A man sitting in a train in motion is facing the engine. He tosses a coin up, the coin falls behind him. The train is moving:

(A)

forward with uniform speed

(B)

backward with uniform speed

(C)

forward with acceleration

(D)

forward with deceleration

Answer: (C) forward with acceleration

114.

Which force causes a charged balloon to attract another balloon?

(A)

Electrostatic force

(B)

Gravitational force

(C)

Muscular force

(D)

Magnetic force

Answer: (A) Electrostatic force

115.

A force acts at a point. Let the magnitude of the torque about the point m be N-m. The value of x is:

(A)

145

(B)

195

(C)

245

(D)

295

Answer: (B) 195

116.

A piston-cylinder device initially contains air at 150 kPa and 27°C. At this state, the volume is 400 litres. The mass of the piston is such that a 350 kPa pressure is required to move it. The air is now heated until its volume has doubled. Determine the final temperature.

(A)

1400 K

(B)

400 K

(C)

500 K

(D)

1500 K

Answer: (A) 1400 K

117.

What is relative humidity?

(A)

It is the ratio of specific humidity

(B)

It is the indicator of moisture content in the atmosphere.

(C)

It implies maximum vapour pressure in the atmosphere.

(D)

It is present everywhere

Answer: (A) It is the ratio of specific humidity

118.

A solid right circular cylinder is attached to a solid hemisphere of equal base. Find the ratio of the height of the cylinder to the radius of the base so that the combined centre of gravity may be at the centre of the base.

(A)

1 : 2

(B)

1 : √2

(C)

2 : √3

(D)

√2 : √3

Answer: (B) 1 : √2

119.

Ice floats on water because _____.

(A)

ice has more density than water.

(B)

ice has less density than water

(C)

ice has more temperature than water

(D)

ice is heavier than water

Answer: (B) ice has less density than water

120.

Specific gravity of a substance is 2.42. What is the density of the substance in lb/ft?

(A)

151

(B)

252

(C)

302

(D)

402

Answer: (A) 151

121.

The statement, "The pressure in a fluid at rest is the same at all points if they are at the same height" represents which of the following?

(A)

Bernoulli's principle

(B)

Archimedes ' principle

(C)

Pascal's Law

(D)

Boyle's law

Answer: (C) Pascal's Law

122.

A hydraulic lift has two pistons with area 1 m^2 and 0.25 m^2. What is the force exerted by the smaller piston when 40 N is placed on the larger piston?

(A)

160 N

(B)

10 N

(C)

40 N

(D)

20 N

Answer: (B) 10 N

123.

Which of the following is based on Pascal's law?

(A)

Centrifuge

(B)

Hydraulic Lift

(C)

Motor

(D)

Lever

Answer: (B) Hydraulic Lift

124.

The resultant pressure on a body submerged in a fluid due to the fluid acts at which of the following points in the body?

(A)

Centre of pressure

(B)

Centre of mass

(C)

Centre of buoyancy

(D)

Metacentre

Answer: (A) Centre of pressure

125.

The universal constant of gravitation_____

(A)

Has no units and dimensions as it is a constant

(B)

Its value remains constant in all systems of units

(C)

That’s not dependent upon the nature of the medium in which the bodies are placed

(D)

It’s a force of repulsion

Answer: (C) That’s not dependent upon the nature of the medium in which the bodies are placed

126.

The weight of a body at the center of the earth is____

(A)

infinite

(B)

zero

(C)

same as that on the surface of the earth

(D)

half of that on the surface of the earth

Answer: (D) half of that on the surface of the earth

127.

Where does a body has the maximum weight?

(A)

at the poles

(B)

in an orbiting satellite

(C)

at the equator

(D)

on the moon

Answer: (A) at the poles

128.

Gravitational force is a mutual force. Hence it is_____

(A)

an action force

(B)

a reaction force

(C)

an action-reaction force

(D)

an action force but not a reaction force

Answer: (C) an action-reaction force

129.

Choose the wrong statement from the following:

(A)

weight of a body is more at the poles than that at the equator

(B)

weight of a body is more on the surface of the earth than on top of Mount Everest

(C)

weight of a body on the moon is less than that on the earth

(D)

All the statements are correct

Answer: (D) All the statements are correct

130.

Universal gravitational constant (G) is_____

(A)

the gravitational force of attraction between two bodies

(B)

the gravitational force of attraction between two bodies each of unit mass.

(C)

the gravitational force of attraction between two bodies separated by unit distance.

(D)

the gravitational force of attraction between two bodies each of unit mass, separated from each other by a unit distance.

Answer: (D) the gravitational force of attraction between two bodies each of unit mass, separated from each other by a unit distance.

131.

Two rods A and B are made of the same material. The diameter of both the rods are equal but the length of the rod A is more than rod B. If the tensile force applied on both the rods are equal, then which of the following statement is correct?

(A)

Elongation in rod A is more than rod B

(B)

Elongation in rod A is less than rod B

(C)

Elongation in rod A is equal to rod B

(D)

Will not Elongation

Answer: (A) Elongation in rod A is more than rod B

132.

Which of the following is the formula for electromagnetic ohms law?

(A)

V=IR

(B)

J= sigma E

(C)

J= I/E

(D)

V=I/R

Answer: (B) J= sigma E

133.

Standardisation of thermometers is obtained with

(A)

Jolly's thermometer

(B)

Platinum resistance thermometer

(C)

Thermocouple thermometer

(D)

Gas thermometer

Answer: (D) Gas thermometer

134.

Which one of the following meters primarily used in commercial or industrial buildings?

(A)

BTU meter

(B)

Prepaid meter

(C)

Anemometer meter

(D)

Smart meter

Answer: (A) BTU meter

135.

Bottle openers, scissors and our arm are the examples of

(A)

lever

(B)

base quantities

(C)

motion

(D)

pendulum

Answer: (A) lever

136.

The algebraic sum of moments of two unlike parallel forces about any point in their plane will be

(A)

Zero

(B)

Constant

(C)

Always anticlockwise

(D)

Always clockwise

Answer: (B) Constant

137.

An object of mass 5 kg is placed in liquid. The increase in the volume of liquid is $2m^3$ and he density of the liquid is $1.5kg/m^3$, the weight of the object in the liquid will be.

(A)

30 N

(B)

10N

(C)

20N

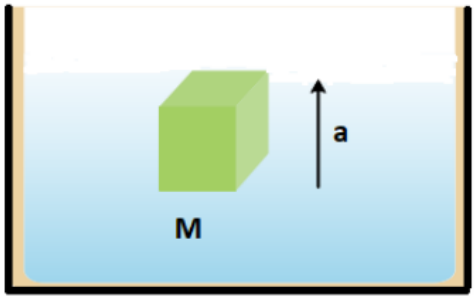
(D)

40N

Answer: (C) 20N

138.

A body of mass 50 Kg is immersed in water forcefully, when left freely it starts accelerating in an upward direction, find the value of the acceleration.
[density of body$500kg/m^3$ density of water$1000kg/m^3$]



(A)

$10m/s^2$

(B)

$15m/s^2$

(C)

$5m/s^2$

(D)

$20m/s^2$

Answer: (A)$10m/s^2$

139.

The CGS unit of mass density is _____.

(A)

gram per cubic centimetre

(B)

kilogram per cubic metre

(C)

gram per cubic metre

(D)

kilogram per cubic centimetre

Answer: (A) gram per cubic centimetre

140.

One litre of water occupies a volume of:

(A)

100 cm^3

(B)

250 cm^3

(C)

500 cm^3

(D)

1000 cm^3

Answer: (D)1000 cm^3

141.

If α is the angular acceleration of a body of moment of inertia I, the torque is

(A)

I2 α

(B)

I α

(C)

I/α

(D)

I2/α

Answer: (B) I α

142.

The intensity of pressure at a certain place is 1 kg (f)/m2, the intensity of pressur e in SI units will be

(A)

47.88 N/m2

(B)

9.81 N/m2

(C)

4.882 N/m2

(D)

0.07013 N/m2

Answer: (B) 9.81 N/m2

143.

In SI system, ampere is the unit of

(A)

Charge

(B)

Potential

(C)

Electric current

(D)

Hendry

Ans: (C) electric current

144.

In SI system, temperature is measured in

(A)

Kelvin

(B)

Fehrenite

(C)

Celsius

(D)

Ohm

Answer: (A) Kelvin

145.

_____ is used for measuring the electron temperature of a plasma?

(A)

Langmuir Probe

(B)

High Probes

(C)

Low Probes

(D)

Constant probes

Answer: (A) Langmuir Probe

146.

RTD Stands for_____?

(A)

Resistance Termo detect

(B)

Resistance temperature detector

(C)

Resistance Thermal device

(D)

Resistance Temperature device

Answer: (B) Resistance temperature detector

147.

A hall is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of four walls, the volume of the hall is:

(A)

720 m^3

(B)

900 m^3

(C)

1200 m^3

(D)

1800 m^3

Answer: (C) 1200 m^3

148.

66 cubic centimetres of silver is drawn into a wire 1 mm in diameter. The length of the wire in metres will be:

(A)

84 meters

(B)

90 meters

(C)

168 meters

(D)

336 meters

Answer: (A) 84 meters

149.

How many methods of evaluation of uncertainty are based upon modern approach?

(A)

2 methods namely Type-A and Type-B

(B)

2 methods namely Type-1 and Type-2

(C)

3 methods namely Type-A, Type-B and Type-C

(D)

3 methods namely Type-1, Type-2 and Type-3

Answer: (A) 2 methods namely Type-A and Type-B

150.

Which type of approach is followed by random errors?

(A)

Poisson distribution approach

(B)

Binomial distribution approach

(C)
Gaussian distribution approach

(D)

Polynomial distribution approach

Answer: (C) Gaussian distribution approach