Section : Elementary Mathematics (Numerical Ability)

Direction for Questions 91-110: Choose the most appropriate option:

Q.89 The number of 'three digit numbers' which are multiples of 9 are:

Ans.
1. 98
2. 101
3. 100
4. 99

Q.90 The value of a machine depreciates every year at the rate of 10% on its value at the beginning of that year. If the present value of the machine is Rs. 729, its worth three years ago was:

Ans.
1. Rs. 947.70
2. Rs. 1,000
3. Rs. 750.87
4. Rs. 800

Q.91 The angle subtended by the Minor segment of a circle at the center is _____ the angle subtended by the Major segment at the center of the circle.

Ans.
1. greater than
2. not related to
3. equal to
4. lesser than

Q.92 What is the sum of all the natural numbers from 1 to 100?

Ans.
1. 5000
2. 5050
3. 6000
4. 5052

Q.93 A part of monthly hostel charges is fixed and the remaining depends on the number of days one has taken food in the mess. When a student A takes food for 20 days, she has to pay Rs. 1000 as hostel char ges whereas a student B, who takes food for 26 days, pays Rs. 1180 as hostel charges. Find the fixed charges and the cost of food per day.
Ans.
1. 300, 30
2. 400, 40
3. 200, 20
4. 400, 30

Q.94 A library has an average of 510 visitors on Sundays and 240 on other days. What is the average number of visitors per day in the month of June beginning with a Sunday?

Ans.
1. 250
2. 280
3. 285
4. 276

Q.95 12 defective pens are accidentally mixed with 132 good ones. It is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one.

Ans.
1. 7/12
2. 11/12
3. 10/12
4. 9/12

Q.96 A man earns Rs. 20 on the first day and spends Rs. 15 on the next day. He again earns Rs. 20 on the third day and spends Rs. 15 on the fourth day. If he continues to save in this way, how soon will he have Rs. 60 in hand?

Ans.
1. on 27th day
2. on 24th day
3. on 12th day
4. on 17th day

Q.97 60 kg of an alloy X is mixed with 100 kg of an alloy Y. If alloy X has lead and tin in the ratio of 3:2 and alloy Y has tin and copper in the ratio of 1:4, then the amount of tin in the new alloy is

Ans.
1. 53 kgs.
2. 80 kgs

3. 36 kgs.
4. 44 kgs.

Q.98   Two consecutive even positive integers, sum of the squares of which is 1060 are:

Ans.
   1. 12 and 14
   2. 22 and 24
   3. 20 and 22
   4. 16 and 18

Q.99   The traffic lights at three different signal points change after every 45 seconds, 75 seconds and 90 seconds respectively. If all change simultaneously at 7:20:15 hours, then they will change again simultaneously at

Ans.
   1. 7:27:30 hours
   2. 7:28:00 hours
   3. 7:27:50 hours
   4. 7:27:45 hours

Q.100 A circular park, 42 m in diameter, has a path 3.5 m wide running around it on the outside. Find the cost of gravelling the path at Rs. 4 per m2

Ans.
   1. Rs. 1672
   2. Rs. 1652
   3. Rs. 2002
   4. Rs. 2048

Q.101 A train which is moving at an average speed of 40 kmph, reaches its destination on time. When its average speed reduces to 35 kmph, then it reaches its destination 15 minutes late. The distance travelled b y the train is:

Ans.
   1. 80 kms
   2. 40 kms
   3. 70 kms
   4. 30 kms

Q.102 4 The mean of 72 items was found to be 63. If two of the items were misrecorded as 27 and 9 instead of 72 and 90 respectively, find the correct mean.

Ans.
   1. 64.75
   2. 64.25
   3. 63.25
   4. 65.75

Q.103 A man buys Rs. 20 shares paying 9% dividend. The man expects to have an interest of 12% on his money. The market value of each share is

Ans.
1. Rs. 18
2. Rs. 15
3. Rs. 12
4. Rs. 21

Q.104 A patient in a hospital is given soup daily in a cylindrical bowl of dia meter 7 cm. If the bowl is filled with soup to a height of 4 cm, how much soup the hospital has to prepare daily to serve 250 patients?

Ans.
1. 40 litres
2. 38 litres
3. 38.5 litres
4. 39.5 litres

Q.105 The angles between the hands of a clock when the time is 4:25 am is:

Ans.
1. 14½ degrees
2. 12½ degrees
3. 17½ degrees
4. 13½ degrees

Q.106 A shop gives 15% discount on the purchase of a T.V. If paid for in cash immediately, a further discount of 12% is given. If the marked price is Rs. 15,000, what is the price of the T.V if cash purchase is made?

Ans.
1. Rs. 12,750
2. Rs. 11,220
3. Rs. 10,950
4. Rs. 11,475

Q.107 If a boy is standing at the top of the tower and another boy is at the ground at some distance from the foot of the tower, then the angle of elevation and depression between the boys when both look at each other will be

Ans.
1. Angle of elevation will be greater
2. Cannot be predicted for relation
3. Angle of depression will be greater
4. Equal

Q.108 If the product of zeroes of the polynomial ax2 - 6x - 6 is 4, find the value of 'a'

Ans.
1. -3/2
2. -1/2
3. 3/2
4. 1/2