Course Code:PEA305
Course Title:ANALYTICAL SKILLS-I

Time Allowed: 01:00 hr.

Max. Marks: 40

Read the following instructions carefully before attempting the question paper.

1. Match the Paper Code shaded on the OMR Sheet with the Paper code mentioned on the question paper and ensure that both are the same.
2. This question paper contains 40 questions of 1 mark each. 0.25 marks will be deducted for each wrong answer.
3. All questions are compulsory.
4. Do not write or mark anything on the question paper and/or on rough sheet(s) which could be helpful to any student in copying, except your registration number on the designated space.
5. Submit the question paper and the rough sheet(s) along with the OMR sheet to the invigilator before leaving the examination hall.
6. Use on Calculator/Log table is not allowed.

Q(1) The smallest 3-digit prime number is :
(a) 103
(b) 107
(c) 109
(d) None of these   ,L4

Q(2) Which one of the following numbers will completely divide $(3^{25} + 3^{26} + 3^{27} + 3^{28})$?
(a) 11
(b) 16
(c) 25
(d) 30   ,L4

Q(3) Three numbers are in the ratio 1 : 2 : 3 and their H.C.F. is 12. The numbers are :
(a) 4, 8, 12
(b) 5, 10, 15
(c) 10, 20, 30
(d) 12, 24, 36   ,L4

Q(4) The L.C.M. of two numbers is 45 times their H.C.F. If one of the numbers is 125 and the sum of H.C.F. and L.C.M. is 1150, the other number is :
(a) 215
(b) 220
(c) 225
(d) 235   ,L4

Q(5) Find the unit digit of 234 X 121 X 89
(a) 6
(b) 8
(c) 2
(d) None   ,L4

Q(6) 7 is added to a certain number; the sum is multiplied by 5; the product is divided by 9 and 3 is subtracted from the quotient. The remainder left is 12. The number is :   CO1,L3
(a) 20
(b) 30
(c) 40
(d) 60   ,L4

Q(7) If $\frac{37}{13} = 2 + \frac{1}{x+\frac{1}{y+\frac{1}{z}}}$, where x, y, z are natural numbers, then x, y, z are :

(a) 1, 2, 5
(b) 1, 5, 2
(c) 5, 2, 11
(d) 11, 2, 5   ,L4

Q(8) Find the remainder when 14 X 16 X 20 is divided by 7
(a) 2.
(b) 0
(c) 1
(d) None   ,L4

Q(9) The sum of three consecutive odd numbers is 38 more than the average of these numbers. What is the first of these numbers ?   CO1,L3
(a) 13
(b) 17
(c) 19
(d) None of these   ,L4

Q(10) The average of five numbers is 27. If one number is excluded, the average becomes 25. The excluded number is :
(a) 25
(b) 27
(c) 30
(d) 35   ,L4

Q(11) which of them will come in the middle, if all of them are arranged alphabetically as a dictionary?
a) Animate b)Animosity c) Anguish d) Ankle e) Announce
(a) b
(b) c
(c) d
(d) e   ,L4

Q(12) A grocer has a sale of Rs. 6435, Rs. 6927, Rs. 6855, Rs. 7230 and Rs. 6562 for 5 consecutive months. How much sale must he have in the sixth month so that he gets an average sale of Rs. 6500?
(a) 4991
(b) 4981
(c) 4971
(d) 4961   ,L4

Q(13) The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?
(a) 81 KG
(b) 83 KG
(c) 85 KG
(d) 87 KG   ,L4

Q(14) If a number x is 10% less than another number y and y is 10% more than 125, then x is equal to :
(a) 123.75
(b) 140.55
(c) 143
(d) 150   ,L5

Q(15) 10% of the voters did not cast their vote in an election between two candidates. 10% of the votes polled were found invalid. The successful candidate got 54% of the valid votes and won by a majority of 1620 votes. The number of voters enrolled on the voters' list was :
(a) 25000
(b) 33000
(c) 35000
(d) 40000   ,L5

Q(16) The price of oil is increased by 25%. If the expenditure is not allowed to increase, the ratio between the reduction in consumption and the original consumption is
(a) 1 : 3
(b) 1 : 4
(c) 1 : 5
(d) 1 : 6   ,L5

Q(17) Jacob bought a scooter for a certain sum of money. He spent 10% of the cost on repairs and sold the scooter for a profit of Rs. 1100. How much did he spend on repairs if he made a profit of 20% ?
(a) Rs. 400
(b) Rs. 440
(c) Rs. 500
(d) Rs. 550   ,L5

Q(18) A shopkeeper sells one transistor for Rs. 840 at a gain of 20% and another for Rs. 960 at a loss of 4%. His total gain or loss percent is :

(a) $5\frac{15}{17}\%$ loss
(b) $5\frac{15}{17}\%$ gain
(c) $6\frac{2}{3}\%$ gain
(d) None of these ,L5

Q(19) A vendor loses the selling price of 4 oranges on selling 36 oranges. His loss percent is :

(a) 10%
(b) $11\frac{1}{9}\%$
(c) $12\frac{1}{2}\%$
(d) None of these ,L5

Q(20) Rs. 800 becomes Rs. 956 in 3 years at a certain rate of simple interest. If the rate of interest is increased by 4%, what amount will Rs. 800 become in 3 years?

(a) Rs. 1020.80
(b) Rs. 1025
(c) Rs. 1052
(d) None of these

,L5

Q(21) The interest on a certain deposit at 4.5% p.a. is Rs. 202.50 in one year. How much will the additional interest in one year be on the same deposit at 5% p.a. ?

(a) Rs. 20.25
(b) Rs. 22.50
(c) Rs. 25
(d) Rs. 42.75 ,L5

Q(22) In class A there are 39 students whose average marks is 30, and in class B there are 13 students whose average marks is 42 , if both the classes are combined then find the overall average?

(a) 33
(b) 21
(c) 29
(d) None CO1,L3

Q(23) Vidhya lent Rs. 5000 to Kavya for 3 years at the rate of 10% per annum compound interest. Calculate the amount that Vidhya will get after 3 years.

(a) 6690
(b) 6655
(c) 6658
(d) 6652 ,L5

Q(24) The price of cooking oil has increased by 25%. By what percent should a family reduce the consumption of cooking oil so as not to increase the expenditure in this account?

(a) 18%
(b) 20%
(c) 22%
(d) 24% ,L5

Q(25) In a country 55% population is female. 80% of the male population is literate. How much of females are literate if total literacy is 58%?

(a) 30%
(b) 35%
(c) 40%
(d) 45% ,L5

Q(26) 40% of greater number is equal to 60% of the smaller. If their sum is 150, then the greater number is

(a) 60
(b) 70
(c) 80
(d) 90 ,L5

Q(27) Find the missing number
7, 26, 63, 124, 215, 342, ?

(a) 511
(b) 481
(c) 421
(d) 391 ,L4

Q(28) 13, 32, 24, 43, 35, ? 46, 65, 57, 76. Find the missing term.

(a) 45
(b) 52
(c) 54
(d) 55 ,L5

Q(29) Find 14.28% of 777

(a) 111
(b) 222
(c) 132
(d) None CO6,L4

Q(30) PMT, OOS, NQR, MSQ, ?

(a) LUP
(b) LVP
(c) LVR
(d) LWP ,L5

Q(31) AYBZC, DWEXF, GUHVI, JSKTL, ?

(a) MQORN
(b) MQNRO
(c) NQMOR
(d) QMONR ,L5

Q(32) UPI, ? ODP, MBQ, IAW Find the missing term.

(a) RHJ
(b) SHJ
(c) SIJ
(d) THK ,L5

Q(33) If the positions of the third and tenth letters of the word DOCUMENTATION are interchanged, and likewise the positions of the fourth and seventh letters, the second and sixth letters, are also interchanged, which of the following will be eleventh letter from the right ?

(a) C
(b) T
(c) U
(d) None of These ,L5

Q(34) In a certain code, VISHWANATHAN is written as NAAWTHHSANIV. How is KARUNAKARANA written in that code ?

(a) AKNUARRANKA
(b) KAANRAURNAAK
(c) NKKRANKRAUK
(d) RURNKAAUNAK ,L5

Q(35) If in a language "finger" is called "toe", "toe" is called "foot", "foot" is called "thumb", "thumb" is called "ankle", "ankle is called "palm" and "palm" is called "knee", then in that language, what will an illiterate man put to mark his signatures?

(a) Toe
(b) Knee
(c) Thumb
(d) Ankle ,L5

Q(36) APZLT, CQYNR, ERXPP, GSWRN, ? Find. next term.

(a) KVIJUJ
(b) JUUVK
(c) ITVTL
(d) KUUVJ ,L5

Q(37) BAZ, DBY, FCX, ? Find next term.

(a) FXW
(b) EFX
(c) FEY
(d) HDW ,L5

Q(38) SCD, TEF, UGH, ... WKL Find missing term.

(a) CMN
(b) UJI
(c) VIJ
(d) IJT ,L5

Q(39) FAG, GAF, HAI, IAH, ... Find the next term.

(a) JAK
(b) HAI
(c) HAK
(d) JAI ,L5

Q(40) In a code language, BLEND is written as ENHPG. How will WINNER be written in the same language?

(a) ZKQPHT
(b) ZKQPHU
(c) YKQPHT
(d) ZKQPHT ,L5

--End of Question paper--

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Q(1) Find the cube root of 24389?
(a) 33
(b) 43
(c) 23
(d) 29

,L4

Q(2) What is the relation between 'a' and 'b' if 'a' represent the number of factors of 100 and 'b' represent number of odd factors in 200
(a) b > a
(b) a > b
(c) a =b
(d) Can not be determine

,L5

Q(3) Nisha is making a game board that is 9 inches by 12 inches. She wants to use square tiles. What is the largest size tile she can use?
(a) 1 inch
(b) 2 inches
(c) 3 inches
(d) None

,L4

Q(4) Nitin is making a game board that is 15 inches by 18 inches. he wants to use square tiles. What is the largest size tile he can use?
(a) 12 inches
(b) 11 inches
(c) 3 inches
(d) None

,L4

Q(5) 4a56 is a four-digit number divisible by 33. What is the value of a?
(a) 3
(b) 4
(c) 5
(d) 6

,L4

Q(6) Calculate the value of $(256)^{0.16} \times (16)^{0.18}$.
(a) 2
(b) 4
(c) 8
(d) 16

,L5

Q(7) How many factors of 24 * 53 * 74 are odd numbers?
(a) 60
(b) 10
(c) 50
(d) 20

,L4

Q(8) Manu, Vina and Riya begin to jog around a circular stadium. They complete their revolutions in42s, 56s and 63s, respectively. After how many seconds will they be together at the starting point?
(a) 366
(b) 252
(c) 504
(d) Can not be determined

,L4

Q(9) When a student weighing 45 kg left a class, the average weight of the remaining 59 students increased by200 grams. What is the average weight of the remaining 59 students?
(a) 50
(b) 65
(c) 57
(d) 80

,L4

Q(10) A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is :
(a) 235
(b) 305
(c) 285
(d) 315

,L4

Q(11) The average run rate of a cricket team during the first 20 overs is 4.5. What should be the asking rate per over for the next 30 overs, if it has to chase a target of 282 runs in total?
(a) 6.0
(b) 6.3
(c) 6.4
(d) 6.8

,L5

Q(12) Find the unit digit in the expression

$1! + 2! + 3! + 4! +$ .... $+ 100!$
(a) 3
(b) 4
(c) 6
(d) 8

,L4

Q(13) Find the remainder in expression- (1!+2!+3!+....+100!)/7
A) 2
B) 3
C) 4
D) 5

Q(14) The cost price of a purse is Rs. 1,260 and a shopkeeper sold it after giving a discount of 22% on its marked price. At what price the shopkeeper should mark the purse, so that he earns a profit of 13.1% after selling it.
(a) 1524
(b) 1710
(c) 1625
(d) 1827

,L5

Q(15) A dealer loses 20% if an article is sold at the price of 50000. At what price he/she has to sell to gain 20%?
(a) 78
(b) 75000
(c) 90000
(d) None

,L5

Q(16) A man sells two mobiles at the rate of Rs. 898989 each. On one he gains 20% and on the other, he loses 20%. What is his loss percent in the whole transaction?
(a) 2 % Loss
(b) 3 % Loss
(c) 4 % Loss
(d) None

,L5

Q(17) A reduction of 30% in the price of rice enables a housewife to purchase 6 kg more for Rs. 140. What is original price in Rs per kg of rice?
(a) 5
(b) 7
(c) 10
(d) 14

,L4

Q(18) A shopkeeper purchase some number of article for Rs.4500. He sold 2/3th of them at 10 % loss each. At what percent profit should he sell the remaining to gain overall 20 % profit.
(a) 30%
(b) 20%
(c) 25%
(d) 40%

,L5

Q(19) A shopkeeper selling his goods at 20% profit. Had he purchase it 10% less and sold it for Rs.24 less then he would get 30% profit. Find the initial CP of that article.
(a) 800
(b) 1500
(c) 200
(d) 1200

,L5

Q(20) An amount becomes 4 times in 7 years when invested under SI at a certain rate. In how many years will the amount become 16 times of the original amount at the same rate?
(a) 25 years
(b) 30 years
(c) 35 years
(d) 40 years

,L5

Q(21) At the rate of 12.5% p.a. the CI on a sum is Rs 510 in 2 years, then the sum will be:
(a) Rs 2100
(b) Rs 1950
(c) Rs 1930
(d) Rs 1920

,L5

Q(22) If A's height is 40% less than that of B, how much percent B's height is more than that of A?
(a) 66.66%
(b) 60%
(c) 40%
(d) 30%

,L5

Q(23) Entry fee in an exhibition was Rs. 1. Later, this was reduced by 25% which increased the sale by 20%. The percentage increase in the number of visitors is :
(a) 20
(b) 25
(c) 30
(d) 32

,L5

Q(24) A sum of money lent at compound interest for 2 years at 20% per annum would fetch Rs.482 more, if the interest was payable half yearly than if it was payable annually . The sum is
(a) 10000
(b) 20000
(c) 25000
(d) 16000

,L5

Q(25) A trader buys oranges at 7 for a rupee and sells them at 40% profit. How many oranges does he sell for a rupee?
A] 3
B] 4
C] 5
D] 6

,L5

Q(26) A dealer marks his goods 20% above cost price. He then allows some discount on it and makes a profit of 8%. The rate of discount is:
A] 12%
B] 10%
C] 6%
D] 4%

,L5

Q(27) Find the wrong term in the following series?
36, 40, 49, 65, 99, 126, 175
(a) 126
(b) 175
(c) 99
(d) 65

,L4

Q(28) What will come in place of the question mark (?) in the following series?

13, ?, 8, 18, 76, 616
(a) 3
(b) 15
(c) 6
(d) 7

,L5

(29) Find the wrong term in the following series.

75, 73, 69, 61, 43, 13

(a) 43   (b) 61   (c) 13   (d) 69

,L5

Q(30) find the wrong number in the series-

30, 42, 48, 54, 65, 81, 126

(a) 42   (b) 54   (c) 65   (d) 126

,L4

Q(31) Find the next one...

500,356,456,392 __

(a) 400   (b) 418   (c) 430   (d) 428

,L2

Q(32) . If tee see pee means drink fruit juice, see kee lee means juice is sweet, lee ree mee means he is intelligent,then which word means sweet?

(a) See   (b) Pee   (c) Tee   (d) Kee

,L2

Q(33) Find the next term.

1, 3, 8, 19, 42, 89, ?

(a) 108   (b) 184   (c) 167   (d) 97

,L4

Q(34) Find the missing number in the given number series?

625, 625, 600, ?, 475, 875

(a) 700   (b) 780   (c) 800   (d) 900

,L5

Q(35) In a certain code 'CERTAIN' is coded as 'BFQUZJM'. How is 'MUNDANE' coded in that code?

(a) LVMEZOD   b) NTCOMBF   (c) NTOCNBF   (d) LTMCZOF

,L5

Q(36) If Z = 52 and ACT = 48, then HAT will be equal to

A] 39   B] 41   C] 44   D] 58

,L5

Q(37) Look at this series: 36, 34, 30, 28, 24, ... What number should come next?

A] 20   B]22   C] 23   D] 26

,L5

Q(38) Look at this series: 664, 332, 340, 170, ____, 89, ... What number should fill the blank?

A]85   B]97   C]109   D]178

,L4

Q(39) Find the number which will come in the place of the question mark in the given series 4, 18, ?, 100, 180, 294, 448.

(a) 48   (b) 86   (c) 62   (d) 38

,L5

Q(40) If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH ?

(a) 214673   (b) 214763   (c) 214555   (d) 241678

,L

--End of Question paper--