



ADIKAVI NANNAYA UNIVERSITY: RAJMAHENDRAVARAM
Skill Course Syllabus (w.e.f:2023-24A.B)

Single Major
SKILL COURSE (w.e.f. AY 2023-24)
SEMESTER-I
ANALYTICAL SKILLS

Theory Credits: 2 2 hrs/week

Course Objective: Intended to inculcate quantitative analytical skills and reasoning as an inherent ability in students.

Course Outcomes:

After successful completion of this course, the student will be able to;

1. Understand the basic concepts of arithmetic ability, quantitative ability, logical reasoning, business computations and data interpretation and obtain the associated skills.
2. Acquire competency in the use of verbal reasoning.
3. Apply the skills and competencies acquired in the related areas
4. Solve problems pertaining to quantitative ability, logical reasoning and verbal ability inside and outside the campus.

UNIT – 1:

Arithmetic ability: Algebraic operations BODMAS, Fractions, Divisibility rules, LCM & GCD (HCF).

Verbal Reasoning: Number Series, Coding & Decoding, Blood relationship, Clocks, Calendars.

UNIT – 2:

Quantitative aptitude: Averages, Ratio and proportion, Problems on ages, Time-distance – speed.

Business computations: Percentages, Profit & loss, Partnership, simple compound interest.

UNIT – 3:

Data Interpretation: Tabulation, Bar Graphs, Pie Charts, line Graphs. Venn diagrams.

Recommended Co-Curricular Activities

Surprise tests / Viva-Voice / Problem solving/Group discussion.

Text Book:

Quantitative Aptitude for Competitive Examination by R.S. Agrawal, S.Chand Publications.

Reference Books

1. Analytical skills by Showick Thorpe, published by S Chand And Company Limited, Ramnagar, New Delhi-110055
2. Quantitative Aptitude and Reasoning by R V Praveen, PHI publishers.
3. Quantitative Aptitude for Competitive Examination by Abhijit Guha, Tata Mc Graw Hill Publications.



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MODEL QUESTION PAPER
Semester – I
SKILL COURSE (w.e.f. AY 2023-24)
ANALYTICAL SKILLS

Time: 2 hrs

50 Marks

1. $1800 \div [10 \{(12-6) + (24-12)\}] = ?$
(a) 1 (b) 2 (c) 10 (d) 20
2. $16 [8 - \{5 - 2(\overline{2-1+1})\}] = ?$
(a) 110 (b) 112 (c) 114 (d) 116
3. What is the value of $p + (p-q) + q + (q-p)$?
(a) $p+q$ (b) $p-q$ (c) p (d) q
4. $\frac{4}{7} \times \frac{2}{3} \times ? = 1008$
(a) 2646 (b) 6246 (c) 1616 (d) 6264
5. $17\frac{1}{3} + 21\frac{1}{2} = 33\frac{1}{3} \% \text{ of } ?$
(a) 116.5 (b) 81.5 (c) 277.5 (d) 104.5
6. $1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{2}}} = ?$
(a) 1 (b) $\frac{5}{8}$ (c) $\frac{8}{5}$ (d) 10
7. Which of the following options shows ascending order?
(a) $\frac{3}{4}, \frac{2}{3}, \frac{4}{5}, \frac{5}{6}$ (b) $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}$ (c) $\frac{5}{6}, \frac{4}{5}, \frac{3}{4}, \frac{2}{3}$ (d) $\frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{4}{5}$
8. What is the value of P when $47p05$ is divisible by 3?
(a) 1 (b) 2 (c) 3 (d) 0
9. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10, & 12 seconds respectively. In 30 minutes how many times do they toll together?
(a) 4 (b) 16 (c) 10 (d) 15
10. Find the lowest common multiple of 24, 36 & 40.
(a) 120 (b) 240 (c) 360 (d) 480
11. Find the next number in the series.
20 10 10 15 30 75 ?
(a) 150 (b) 210 (c) 220 (d) 225
12. 720 120 24 6 2 1 ?
(a) 0.5 (b) 1 (c) 1.5 (d) 2
13. In a certain code language, 'COMPUTER' is coded as 'PMOCRETU', then how is 'DECIPHER' written in that code?
(a) ICEDREHP (b) REHPICED (c) EDICHORE (d) REHPDECI
14. In a certain code language: HARYANA is coded as 8197151.; then how will you code for DELHI.
(a) 45398 (b) 43598 (c) 98354 (d) 45389
15. If A is the brother of B; B is the sister of C; C is the father of D, then how is D related A?
(a) Brother (b) Nephew (c) Niece (d) can't say
16. Introducing a boy, a girl says 'He is the son of the only Daughter of the father of my maternal uncle.'
(a) Nephew (b) Brother (c) uncle (d) son-in-law



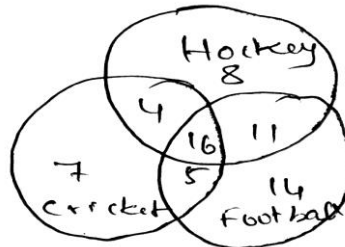
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17. Find the day of the week Dec 28, 1998?
(a) Sunday (b) Monday (c) Tuesday (d) Wednesday
18. If today is Sunday then after 86 days what day will become?
(a) Sunday (b) Monday (c) Tuesday (d) Wednesday
19. Find the angle between two hands of a clock, when clock shows 4:40?
(a) 70^0 (b) 80^0 (c) 90^0 (d) 100^0
20. How many times are the hands of a clock at right angle in a day?
(a) 22 (b) 24 (c) 44 (d) 11
21. The average of five consecutive odd numbers is 61. What is the difference between the highest & lowest numbers?
(a) 12 (b) 8 (c) 14 (d) 10
22. The Average weight of A, B, & C is 45 kg. If the Average weight of A & B is 40 kg & that of B & C is 43 kg, then the weight of B is?
(a) 17kg (b) 20kg (c) 26 kg (d) 31 kg
23. Find the fourth proportional of 4, 6, 8, ?
(a) 10 (b) 12 (c) 14 (d) 16
24. In a bag, there are coins of 25p, 10p, & 5p in the ratio of 1:2:3. If there is 30/- in all, how many 5p coins are there?
(a) 50 (b) 100 (c) 150 (d) 200
25. If A : B = 2:3; B:C 5:8 then find A: B: C =
(a) 10:15:24 (b) 8:5:12 (c) 2:3:8 (d) 6:5:4
26. The sum of ages of 5 children born at the interval of 3 years each is 50 years. What is the age of the youngest child?
(a) 4 years (b) 8 years (c) 12 years (d) 16 years.
27. A is two years older than B, who is twice as old as C. If the total of the ages of A,B,& C is 27, then how old is B?
(a) 7 (b) 8 (c) 9 (d) 10
28. A man complete a Journey in 10 hrs. He travels first half of the journey at the rate of 21 kmph and second half at the rate of 24 kmph, then find total journey in km?
(a) 220km (b) 230 km (c) 224 km (d) 234 km
29. A runner can complete a 750 m race in two and half minutes, will he be able to beat another runner who runs at 16.5 kmph?
(a) yes (b) No (c) can't say (d) Never beat
30. If A alone can complete a work in 20 days. B alone can complete the same work in 30 days. If Both A & B working together then how many days the same work would be completed?
(a) 15 days (b) 12 days (c) 10 days (d) 18 days
31. Ram salary is 50,000/-. He got a 15% increment of his salary. What is the new salary?
(a) 55,000 (b) 57,500 (c) 60, 000 (d) 56, 500
32. By how much is 80% of 40 greater than $\frac{4}{5}$ of 25?
(a) 10 (b) 15 (c) 20 (d) 12
33. A man buys a cycle for 1400 and sells it at a loss of 15%. What is the selling price of the cycle?
(a) 1090 (b) 1190 (c) 1290 (d) 990
34. 100 oranges are bought at the rate of 350/- and sold at the rate of 48/- per dozen then find percentage of profit or loss?
(a) 15% loss (b) 15% gain (c) $14\frac{2}{7}\%$ gain (d) $14\frac{2}{7}\%$ loss
35. A,B,C start a business with a total capital of 50,000. A invest 4000/- more than B and B invest 5000/- more than C. Out of a total profit of 35,000 A Receives?
(a) 8400 (b) 11,900 (c) 13, 600 (d) 14, 700

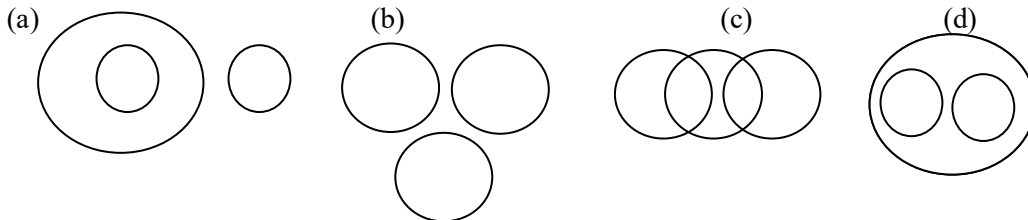


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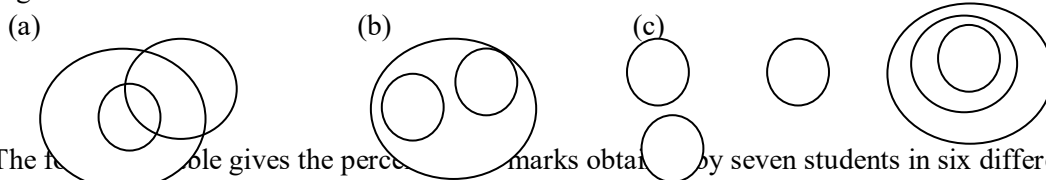
36. A starts business with Rs. 3500 and after 5 months, B joins with A as his partner. After a year, the profit is divided in the ratio 2:3. What is B's contribution in the capital?
(a)7500 (b)8000 (c)8500 (d)9000
37. A sum of Rs. 25000 will become Rs. 31000 in 48 months at some rate of Simple interest. Find the rate of interest per annum?
(a)6% (b)10% (c) 12% (d) 20%
38. A sum of money at simple interest amounts to 815/- in 3 years and amounts to 854 in 4 years then find sum?
(a)650 (b)698 (c)690 (d)700
39. Find the compound interest (CI) on Rs. 12600 for 2 years at 10% per annum compounded annually.
(a)14646 (b)2646 (c)15246 (d) 3636
40. The difference in simple interest and compound interest on a certain sum of money in 2 years at 10% p.a. is 50/- then find sum?
(a)10,000 (b)5000 (c)6000 (d)2000/-
- (41-43): The following venn diagram shows games played by the number of students in a class



41. How many students like only cricket and only football.
(a)7 (b)14 (c) 21 (d)28
42. How many students like all the three games.
(a)4 (b)16 (c)11 (d)5
43. How many students like only one game.
(a)8 (b)14 (c)7 (d) 29
44. Which of the following diagrams indicates the best relation between Travelers, Train & Bus.



45. Which of the following diagrams indicates the best relations between women, mothers and Engineer?



(46-50): The following table gives the percentage marks obtained by seven students in six different subjects in an examination. Study the table and answer the questions based on it. The numbers in the brackets give the maximum marks in each subject.



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Subjects (max.marks)	Maths (150)	Chemistry (130)	Physics (120)	Geography (100)	History (60)	Computer science (40)
Student						
Ayush	90	50	90	60	70	80
Aman	100	80	80	40	80	70
Sajal	90	60	70	70	90	70
Rohit	80	65	80	80	60	60
Muskan	80	65	85	95	50	90
Tanvi	70	75	65	85	40	60
Tarun	65	35	50	77	80	80

46. What was the aggregate of marks obtained by Sajal in all the six subjects?
(a) 409 (b) 419 (c) 429 (d) 449
47. What is the overall percentage of Tarun?
(a) 52.5% (b) 55% (c) 60% (d) 64.5%
48. What are the average marks obtained by all the seven students in Physics? (rounded off to two digits after decimal)?
(a) 77.26 (b) 89.14 (c) 91.37 (d) 96.11
49. The number of students who obtained 60% and above marks in all the subjects is:
(a) 1 (b) 2 (c) 3 (d) None
50. In which subject is the overall percentage the best?
(a) History (b) Maths (c) Physics (d) Chemistry

Key

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|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. c | 2. b | 3. a | 4. a | 5. a | 6. c | 7. b | 8. b | 9. b | 10. c |
| 11. d | 12. b | 13. a | 14. d | 15. d | 16. b | 17. b | 18. c | 19. d | 20. c |
| 21. b | 22. d | 23. b | 24. c | 25. a | 26. a | 27. d | 28. c | 29. a | 30. b |
| 31. b | 32. d | 33. b | 34. c | 35. d | 36. d | 37. a | 38. b | 39. b | 40. b |
| 41. c | 42. d | 43. d | 44. c | 45. a | 46. d | 47. c | 48. b | 49. b | 50. b |