

VERBAL
CHAPTER – 1
NUMBER SERIES

Direction (1-25): In the following questions, a series of numbers is given with a particular logic. Find the number which can continue the series with same logic.

1. 1, 2, 3, 4, 5, _____ [**A**]
(A) 6 (B) 7 (C) 8 (D) 9
2. 2, 4, 6, 8, _____ [**A**]
(A) 10 (B) 12 (C) 14 (D) 16
3. 2, 3, 5, 7, 11, ____ [**A**]
(A) 13 (B) 12 (C) 14 (D) 19
4. 4, 9, 16, 25, 36, _____ [**C**]
(A) 40 (B) 42 (C) 49 (D) None of these
5. 3, 8, 15, 24, 35, ____ [**D**]
(A) 49 (B) 48 (C) 47 (D) 46
6. 1, 2, 3, 5, 8, ____ [**B**]
(A) 9 (B) 11 (C) 13 (D) 15
7. 33, 55, 77, 121, _____ [**A**]
(A) 143 (B) 341 (C) 314 (D) None of these
8. 8, 9, 27, 28, 64, _____ [**A**]
(A) 65 (B) 66 (C) 67 (D) 68
9. 5, 8, 13, _____, 29 [**A**]
(A) 18 (B) 19 (C) 20 (D) 21
10. 4, 6, 20, 6, 8, 44, 10, 10, _____ [**B**]
(A) 74 (B) 96 (C) 54 (D) 91
11. 7, 9, 13, 21, ____ [**D**]
(A) 35 (B) 37 (C) 39 (D) 41
12. 3, 8, 18, 23, 33, _____ [**B**]

- | | | | | | |
|-----|--|---------|----------|----------|--------------|
| | (A) 37 | (B) 38 | (C) 39 | (D) 36 | |
| 13. | 1, 2, 5, 12, 27, 58, 121, ____ | | | | [C] |
| | (A) 246 | (B) 247 | (C) 248 | (D) 249 | |
| 14. | 840, 168, 42, 14, 7, ____ | | | | [A] |
| | (A) 1 | (B) 7 | (C) 9 | (D) 12 | |
| 15. | 11, 12, 17, 18, 23, 24, ____ | | | | [B] |
| | (A) 12 | (B) 29 | (C) 30 | (D) 35 | |
| 16. | 7, 16, 25, 34, 43, 52, ____ | | | | [B] |
| | (A) 63 | (B) 61 | (C) 73 | (D) 48 | |
| 17. | 625, 576, 529, 484, 441, ____ 361, 324 | | | | [D] |
| | (A) 384 | (B) 421 | (C) 429 | (D) 400 | |
| 18. | 81, 144, 225, ____, 441, 576 | | | | [B] |
| | (A) 342 | (B) 324 | (C) 234 | (D) 328 | |
| 19. | 90, 84, 86, 80, ____, 76, 78 | | | | [D] |
| | (A) 87 | (B) 82 | (C) 77 | (D) 89 | |
| 20. | 15, 18, 36, 39, 78, ____, 162, 165 | | | | [D] |
| | (A) 86 | (B) 102 | (C) 91 | (D) 81 | |
| 21. | 8, 11, 17, 26, ____ | | | | [B] |
| | (A) 29 | (B) 35 | (C) 28 | (D) 38 | |
| 22. | 80, 65, ____, 35, 20 | | | | [C] |
| | (A) 50 | (B) 40 | (C) 45 | (D) 60 | |
| 23. | 3, 5, 9, 17, ____ | | | | [B] |
| | (A) 25 | (B) 33 | (C) 23 | (D) 49 | |
| 24. | 4, 20, 100, ____, 2500 | | | | [A] |
| | (A) 500 | (B) 400 | (C) 2000 | (D) 8000 | |
| 25. | 2, 5, 7, 12, 19, ____ | | | | [A] |
| | (A) 26 | (B) 24 | (C) 31 | (D) 38 | |

CHAPTER 2

LETTER SERIES

Directions (1-15): In the following questions, letters are arranged in a particular order with some underlying criterion. Study the sequence of letter to find out the order and select the correct alternative.

1. A, B, C, D, ____ [**A**]
(A) E (B) F (C) G (D) H
2. U, V, W, X, ____ [**D**]
(A) Z (B) A (C) B (D) Y
3. A, C, E, G, ____ [**D**]
(A) K (B) L (C) O (D) I
4. Z, X, V, T, ____ [**A**]
(A) S (B) R (C) B (D) M
5. B, D, F, ____ [**A**]
(A) H (B) J (C) L (D) O
6. B, C, E, G, ____ [**A**]
(A) I (B) J (C) K (D) L
7. AB, DE, GH, ____ [**B**]
(A) IJ (B) JK (C) LM (D) NO
8. AZ, BY, CX, ____ [**C**]
(A) VE (B) UF (C) DW (D) None of these
9. E, G, I, K, ____ [**A**]
(A) M (B) O (C) Q (D) S
10. C, F, I, ____ [**C**]
(A) O (B) U (C) L (D) None of these
11. ZA, XB, VC, TD, ____ [**C**]
(A) RA (B) SE (C) RE (D) SF
12. AC, DF, GI, JL, ____ [**B**]
(A) MN (B) MO (C) MP (D) NP

13. Z, XW, UTS, QPON, _____ [**B**]
 (A) LKJI (B) MLKJIH (C) LKJIH (D) MLKJ
14. AB, DF, HK, MQ, ____ [**C**]
 (A) RW (B) RX (C) SW (D) SX
15. ZY, XV, UR, QM, _____ [**A**]
 (A) LG (B) LI (C) LH (D) KG

Directions (16-25): In each of the following letter series, some of the letters are missing which are given in that order as one of the alternative below it. Choose the correct alternative:

16. a_ca_ca_ca_c [**A**]
 (A) bbbb (B) abca (C) acba (D) None of these
17. a_ab_bc_ca_a [**B**]
 (A) abbc (B) abca (C) acba (D) aacb
18. a_baa_aa__ab [**B**]
 (A) baba (B) abba (C) aabb (D) baab
19. a_ba_ba_b_bb [**C**]
 (A) bbba (B) abbb (C) abab (D) None of these
20. a_cc_bb_aa_c [**A**]
 (A) bacb (B) bbac (C) cabb (D) abcb
21. _yzx_zxy__yz [**D**]
 (A) yyyy (B) xyzx (C) xzyx (D) xxyz
22. _yyx_yxy__yy [**C**]
 (A) xyyx (B) yyxx (C) xyxy (D) None of these
23. xx__xyx_y_xy [**A**]
 (A) zyyz (B) yxxx (C) yyyy (D) None of these
24. _yz_xy_zx_yz [**D**]
 (A) yyyy (B) zzzz (C) xxxx (D) xzyx
25. t_t t_tts_ts_ [**B**]
 (A) tttt (B) ssst (C) ttss (D) sstt

CHAPTER – 3

ALPHA NUMERIC SERIES

Direction (1-25): In the following questions, letters and numbers are arranged in a particular order with some underlying criterion. Study the pattern to find out the correct alternative.

1. C4X, F9U, 116R, ____ [**C**]
(A) K25P (B) L25P (C) L25O (D) L27P
2. KM5, IP8, GS11, EV14, ____ [**D**]
(A) BX17 (B) BY17 (C) CY18 (D) CY17
3. 2Z5, 7Y7, 14X9, 23W11, 34V13, ____ [**B**]
(A) 27U24 (B) 47U15 (C) 45U15 (D) 47U14
4. 5A, 7C, 11E, 13G, ____ [**B**]
(A) 9J (B) 15I (C) 17I (D) 18H
5. C13A, H68F, M1113K, ____ [**B**]
(A) Q1617P (B) R1618P (C) R1817Q (D) R1816P
6. C1L, F4O, 19R, L16U, ____, R36A [**C**]
(A) O20X (B) N25Y (C) O25X (D) N20Z
7. D-4, F-6, H-8, J-10, ____, ____ [**D**]
(A) K – 12, M-13 (B) L-12, M-14 (C) L-12, N-14 (D) K-12, M-14
8. A1B, C2D, E3F, ____ [**D**]
(A) G4H (B) H4G (C) G3H (D) G2H
9. B2D, D4F, F6H, ____ [**A**]
(A) H8J (B) J8H (C) H7J (D) J7H
10. T4E, Y5E, X6D, ____ [**A**]
(A) U7C (B) C7U (C) U5C (D) U6C
11. P3C, R5F, T8I, V12L, ____ [**C**]
(A) Y17O (B) X17M (C) X17O (D) X16O
12. 3F, 6G, 11I, 18L, ____ [**C**]

- | | | | | | |
|-----|---|-----------|-----------|------------|--------------|
| | (A) 210 | (B) 25N | (C) 27P | (D) 27Q | |
| 13. | 2A11, 4D13, 12G17, _____ | | | | [B] |
| | (A) 36I19 | (B) 36J21 | (C) 48J21 | (D) 48J23 | |
| 14. | Q1F, S2E, U6D, W21C, _____ | | | | [C] |
| | (A) Y44B | (B) Y66B | (C) Y88B | (D) Z88B | |
| 15. | A2B, D20E, G56H, _____ | | | | [B] |
| | (A) J90K | (B) J100K | (C) J110K | (D) J120K | |
| 16. | W – 144, _____, S - 100, Q - 81, O - 64 | | | | [B] |
| | (A) U-121 | (B) U-122 | (C) V-121 | (D) V-128 | |
| 17. | AC3, DF24, GI63, _____ | | | | [C] |
| | (A) JL110 | (B) JK110 | (C) JL120 | (D) JL 100 | |
| 18. | N5V, K7T , _____, E14P, B19N | | | | [C] |
| | (A) H9R | (B) H10Q | (C) H10R | (D) I10R | |
| 19. | A1C, D2G, H3L, M4R, _____ | | | | [A] |
| | (A) S5Y | (B) Y4Y | (C) S3Y | (D) Y3S | |
| 20. | 2B, 4C, 8E, 14H, _____ | | | | [A] |
| | (A) 16K | (B) 20I | (C) 20L | (D) 22L | |
| 21. | AC2, FH7, KM12, _____ | | | | [A] |
| | (A) OP17 | (B) PR17 | (C) PQ15 | (D) PR16 | |
| 22. | AZ7, ZA12, YB22, XC42, _____ | | | | [A] |
| | (A) WD82 | (B) WD80 | (C) DW82 | (D) DW80 | |
| 23. | A3B, D9E, G15H, _____ | | | | [A] |
| | (A) J21K | (B) K21J | (C) I19J | (D) I20J | |
| 24. | J2Z, K4X, 17V, ?, H16R, M22P | | | | [D] |
| | (A) I11T | (B) L11S | (C) I12T | (D) L11T | |
| 25. | B2CD, _____, BCD4, B5CD, BC6D | | | | [B] |
| | (A) B2C2D | (B) BC3D | (C) B2C3D | (D) BCD7 | |

CHAPTER – 4

NUMBER ANALOGY

Direction (1-25): In the following questions, the first two numbers are related to each other some way. Identify the relation and establish the same relation between the next two numbers by choosing the correct alternative.

1. $5 : 24 :: 7 : ?$ [**B**]
(A) 3 (B) 48 (C) 63 (D) 70
2. $916 : 619 :: 871 : ?$ [**A**]
(A) 178 (B) 817 (C) 718 (D) 781
3. $9 : 80 :: 7 : ?$ [**A**]
(A) 48 (B) 50 (C) 78 (D) 82
4. Which set of numbers is like the given set (64, 32, 8)? [**C**]
(A) (125, 25, 5) (B) (81, 27, 3) (C) (56, 28, 7) (D) (112, 56, 16)
5. $8 : 30 :: ? : 22$ [**D**]
(A) 5 (B) 6 (C) 7 (D) 8
6. $18 : 30 :: 36 : ?$ [**A**]
(A) 54 (B) 62 (C) 64 (D) 66
7. $19 : 58 :: 7 : ?$ [**A**]
(A) 22 (B) 23 (C) 21 (D) 24
8. $3 : 243 :: 5 : ?$ [**B**]
(A) 425 (B) 465 (C) 546 (D) 3125
9. $121 : 169 :: 289 : ?$ [**B**]
(A) 324 (B) 361 (C) 341 (D) 441
10. $7 : 15 :: 9 : ?$ [**D**]
(A) 17 (B) 20 (C) 23 (D) 18
11. $16 : 56 :: 32 : ?$ [**B**]
(A) 96 (B) 112 (C) 118 (D) 128
12. $10 : 99 :: 9 : ?$ [**B**]
(A) 69 (B) 80 (C) 97 (D) 49

13. $372 : 124 :: 624 : ?$ [**A**]
(A) 243 (B) 450 (C) 208 (D) 161
14. $144 : 10 :: 169 : ?$ [**D**]
(A) 14 (B) 11 (C) 13 (D) 12
15. $9 : 8 :: 16 : ?$ [**D**]
(A) 27 (B) 17 (C) 16 (D) 18
16. $441 : 361 :: 729 : ?$ [**C**]
(A) 841 (B) 676 (C) 625 (D) 684
17. $27 : 216 :: 64 : ?$ [**A**]
(A) 216 (B) 1331 (C) 512 (D) 729
18. $105 : 150 :: 39 : ?$ [**A**]
(A) 68 (B) 64 (C) 60 (D) 72
19. $6 : 222 :: 9 : ?$ [**B**]
(A) 729 (B) 738 (C) 632 (D) 623
20. $25 : 36 :: 49 : ?$ [**B**]
(A) 61 (B) 63 (C) 60 (D) 65
21. $27 : 51 :: 83 : ?$ [**C**]
(A) 102 (B) 117 (C) 123 (D) 138
22. $11 : 25 :: 17 : ?$ [**D**]
(A) 33 (B) 28 (C) 41 (D) 37
23. $47 : 121 :: 89 : ?$ [**A**]
(A) 187 (B) 183 (C) 191 (D) 193
24. $7 : 18 :: 12 : ?$ [**D**]
(A) 26 (B) 28 (C) 32 (D) 37
25. $16 : 68 :: 36 : ?$ [**C**]
(A) 216 (B) 210 (C) 222 (D) 226

CHAPTER – 5

LETTER ANALOGY

Direction (1-25): In the following questions, the first two set of letters are related to each other some way. Identify the relation and establish the same relation between the next two set of letters by choosing the correct alternative.

1. GPO : FQN :: UWS : ? [**D**]
(A) VVR (B) TXT (C) VXR (D) TXR
2. GEL : HGO :: QRF : ? [**B**]
(A) STI (B) RTI (C) SUJ (D) RTH
3. REM : QCJ :: BIP : ? [**C**]
(A) AHG (B) AGO (C) AGM (D) CLO
4. ZSJ : YRI :: RGF : ? [**C**]
(A) QED (B) QGU (C) QFE (D) RED
5. FLR : DJP :: BHN : ? [**A**]
(A) ZFL (B) XBP (C) ZBL (D) ZFP
6. ACBD : FHGI :: RTSU : ? [**B**]
(A) WXYZ (B) WYXZ (C) WZXY (D) ZYWX
7. BEGH : ADFG :: PSUY : ? [**A**]
(A) ORTX (B) ROUX (C) UROX (D) XVRO
8. ZXYW : USTR :: PNOM : ? [**C**]
(A) HIJK (B) KHIJ (C) KIJH (D) IHJK
9. ABDH : ZYWS :: EFHL : ? [**C**]
(A) VOSU (B) USOV (C) VUSO (D) TUSV
10. ERTG : HUWJ :: CPRE : ? [**B**]
(A) FSHU (B) FSUH (C) HUSF (D) HSUF
11. NOIT : OPHS :: ? : MBMQ [**D**]
(A) NCLP (B) LANR (C) LCLR (D) NANP
12. NASU : MBRV :: ? : DMRF [**A**]
(A) CNQG (B) ENSO (C) CLQE (D) ELSE

13. MOHT : SINN :: LHEM: ? [B]
(A) LFGM (B) QFKI (C) SFMI (D) QDKG
14. PSQR : CFED :: JMKL : ? [B]
(A) WYXZ (B) WZYX (C) YVZX (D) YXZW
15. MLKJ : DCBA :: ZYXW : ? [B]
(A) QNPQ (B) QPON (C) OPQR (D) PONM
16. MIND : KGLB :: DIAGRAM : ? [B]
(A) BGYEPYK (B) BGYPYEK (C) GLPEYKB (D) LKBGYPK
17. DECEMBER : ERMBCED : : NOVEMBER : ? [C]
(A) ERMBNOVE (B) ERBMONVE (C) ERMBVENO (D) EBRMOVNE
18. RATIO : OITAR :: ? : RATIOG [B]
(A) AUTIGR (B) GUITAR (C) RUGTIA (D) GRUITA
19. FORTY : ENQSD :: ? : RDUDMSX [B]
(A) SIXTEEN (B) SEVENTY (C) SEVERE (D) SCISSOR
20. BARTER : BARRET :: ? : LETRET [A]
(A) LETTER (B) LETERT (C) TELLER (D) TELRET
21. LAMP : ETEI :: BAND: ? [B]
(A) VURX (B) UTGW (C) NBST (D) VTGW
22. PARK : QZSJ :: TANK : ? [A]
(A) SBML (B) UZOJ (C) UBOL (D) UZMJ
23. ACDF: CGJN :: BEHI: ? [A]
(A) DJNQ (B) DINQ (C) DINR (D) DKMR
24. WST : TOO :: BTU : ? [C]
(A) PPY (B) XOO (C) CTP (D) YPP
25. AB : ZY :: DE : ? [B]
(A) WV (B) WX (C) VX (D) VY

CHAPTER – 6

WORD ANALOGY

Direction (1 - 25): In the following questions, there are two pairs of words. Choose the correct option to fill “?” in the second pair using the relation between the words in the first pair.

1. Above : Below :: Begin : ? [**B**]
(A) Start (B) End (C) Run (D) Join
2. Eye : Vitamin A :: Bone : ? [**C**]
(A) Vitamin B (B) Mineral (C) Calcium (D) Iron
3. Clown : Fun :: Teacher : ? [**D**]
(A) Instruct (B) Examine (C) Learn (D) Educate
4. Plough : Farmer :: Sword : ? [**A**]
(A) Soldier (B) Surgeon (C) Tailor (D) Carpenter
5. Moose : Deer : Poodle : ? [**A**]
(A) Dog (B) Fowl (C) Donkey (D) Duck
6. Books : Library :: Words : ? [**B**]
(A) Books (B) Dictionary (C) Sentences (D) None of these
7. Telangana : Hyderabad :: Tamilnadu : ? [**B**]
(A) Chennai (B) Madurai (C) Pondicherry (D) None of these
8. Mango : Fruit :: Jasmine : ? [**C**]
(A) Root (B) Fruit (C) Flower (D) Branch
9. Pen : Write :: Food : ? [**B**]
(A) Stomach (B) Eat (C) Prepare (D) None of these
10. Neck : Tie :: Waist : ? [**C**]
(A) Shirt (B) Ribbon (C) Belt (D) Watch
11. South : North-West :: West : ? [**C**]
(A) North (B) South-West (C) North-East (D) East
12. Needle : Stitch :: Scissor : ? [**A**]
(A) Cut (B) Stitch (C) Join (D) None of these

13. Chef : Restaurant :: Druggist : ? [**B**]
(A) Medicine (B) Pharmacy (C) Store (D) Chemist
14. Biscuit : Eat :: Coffee : ? [**A**]
(A) Drink (B) Eat (C) Snacks (D) Tea
15. Problem : Solution :: Question : ? [**C**]
(A) Solution (B) Figure (C) Answer (D) All of the above
16. Clock : Time :: Thermometer : ? [**D**]
(A) Heat (B) Radiation (C) Energy (D) Temperature
17. Bank : River :: Coast : ? [**D**]
(A) Flood (B) Waves (C) Sea (D) Beach
18. Newspaper : Press :: Cloth : ? [**A**]
(A) Tailor (B) Textile (C) Fibre (D) Mill
19. Coconut : Shell :: Letter : ? [**C**]
(A) Letter-box (B) Stamp (C) Mail (D) Envelope
20. Leather : Cobbler :: Wood : ? [**C**]
(A) Furniture (B) Cottage (C) Carpenter (D) Mason
21. Malaria : Disease :: Spear : ? [**C**]
(A) Wound (B) Sword (C) Weapon (D) War
22. Push : Pull :: Throw : ? [**C**]
(A) Jump (B) Collect (C) Pick (D) Game
23. Cricket : Bat :: Hockey : ? [**A**]
(A) Stick (B) Ball (C) Goal (D) Field
24. Lata Mangeshkar : Singer :: Amitabh Bachchan : ? [**C**]
(A) Player (B) Writer (C) Actor (D) Teacher
25. Ship : Sea :: Camel : ? [**B**]
(A) Land (B) Desert (C) Mountain (D) Forest

CHAPTER – 7

CLASSIFICATION

Part A: Word Classification

Direction (1-10): In the following questions, five words are given. Four of them are alike while the fifth one is different. Find the odd one out.

1. (A) Apple (B) Marigold (C) Rose (D) Lily (E) Lotus [**A**]
2. (A) Zebra (B) Lion (C) Tiger (D) Horse (E) Giraffe [**D**]
3. (A) Pen (B) Keyboard (C) Pencil (D) Ink (E) Eraser [**D**]
4. (A) Carrot (B) Radish (C) Potato (D) Sweet potato (E) Beet [**C**]
5. (A) Shop (B) Pencil (C) Canvas (D) Paint (E) Brush [**A**]
6. (A) Snake (B) Lizard (C) Turtle (D) Whale (E) Crocodile [**D**]
7. (A) Ring (B) Ornament (C) Necklace (D) Bangle (E) Bracelet [**B**]
8. (A) Lake (B) Pond (C) Pool (D) Tank (E) Brook [**D**]
9. (A) Almond (B) Turmeric (C) Pepper (D) Cumin seed (E) Chillies [**A**]
10. (A) Bean (B) Grapes (C) Carrot (D) Banana (E) Tomato [**C**]

Part B: Alphabet Classification

Direction (11-20): In the following questions, three of them belong to same category while fourth is different. Find the odd one out of them.

11. (A) H (B) Q (C) J (D) Z [**B**]
12. (A) A (B) O (C) U (D) Y [**D**]
13. (A) DE (B) PQ (C) TU (D) MO [**D**]
14. (A) XW (B) FG (C) ML (D) PO [**B**]
15. (A) HL (B) CF (C) TW (D) WZ [**A**]
16. (A) PUT (B) END (C) OWL (D) ARM [**A**]
17. (A) RNJ (B) XTP (C) MIE (D) ZWR [**D**]
18. (A) FAA (B) OFF (C) ATT (D) IFF [**A**]
19. (A) DEB (B) HIF (C) NOL (D) RTP [**D**]
20. (A) PQs (B) AtB (C) SiM (D) mnZ [**D**]

Part C: Number Classification

Direction (21-25): In the following questions, four of the given numbers belong to same category and one will be different. Find the odd one out of them.

21. (A) 2 (B) 3 (C) 5 (D) 7 (E) 11 [**A**]
22. (A) 3 (B) 5 (C) 7 (D) 9 (E) 11 [**D**]
23. (A) 125 (B) 49 (C) 64 (D) 27 (E) 216 [**B**]
24. (A) 123 (B) 22 (C) 42 (D) 72 (E) 111 [**B**]
25. (A) 11 (B) 13 (C) 15 (D) 17 (E) 19 [**C**]

CHAPTER – 8

CODING AND DECODING

Direction (1 – 5): If in English alphabet A is coded as 1, B is coded as 2 and so on how are the following letter combinations coded? Choose the correct answer.

1. DEAH [**C**]
(A) 4517 (B) 4528 (C) 4518 (D) 5417
2. GFEAC [**A**]
(A) 76513 (B) 75412 (C) 74513 (D) 6512
3. AHDE [**D**]
(A) 1736 (B) 1846 (C) 1756 (D) 1845
4. IGECA [**B**]
(A) 87632 (B) 97531 (C) 98532 (D) 96531
5. HDDAB [**D**]
(A) 83312 (B) 84312 (C) 74412 (D) 84412

Direction (6-13): If CHEST is coded as 45723 and BALL is coded as 6899, how are the following words coded?

6. CAT [**B**]

(A) 473 (B) 483 (C) 423 (D) 583

7. HALL [**D**]

(A) 4899 (B) 6899 (C) 5832 (D) 5899

8. EAST [**C**]

(A) 8723 (B) 8722 (C) 7823 (D) 7723

9. BELT [**A**]

(A) 6793 (B) 6693 (C) 6893 (D) 7633

10. LAST [**B**]

(A) 9923 (B) 9823 (C) 4893 (D) 9723

11. TEST [**B**]

(A) 8723 (B) 3723 (C) 4393 (D) 7293

12. SALT [**D**]

(A) 7283 (B) 9823 (C) 8932 (D) 2893

13. BAT [**C**]

(A) 836 (B) 639 (C) 683 (D) 238

Direction (14 – 25): The following questions are based on coding and decoding. Choose the correct answer.

14. In a certain code, TELEPHONE is written as ENOHPELET. How is ALIGATOR written in that code? [**A**]

(A) ROTAGILA (B) ROTAGAIL (C) ROTAGILE (D) ROTEGILA

15. In a certain code, INACTIVE is written as VITCANIE. How is COMPUTER written in the same code? [**B**]

(A) PMOCRETU (B) ETUPMOCR (C) UTEPMOCR (D) MOCPETUR

16. In a certain code, CAT is written as SATC and DEAR is written as SEARD. How would SING be written in that code? [**B**]

(A) BGINS (B) SGNIS (C) SINGS (D) GNISS

17. If SYSTEM is coded as SYSMET and NEARER as AENRER, then FRACTION will be coded as [**A**]
(A) CARFNOIT (B) NOITFRAC (C) FRACNOIT (D) CARFTION
18. In a certain code, KAVERI is written as VAKIRE. How is MYSORE written in that code? [**C**]
(A) EROSYM (B) SYMROE (C) SYMERO (D) SMYERP
19. If in a certain language, TRIANGLE is coded as SQHZMFKD, which word would be coded as DWZLOKD? [**D**]
(A) EXAMPLE (B) FIGMENT (C) DISMISS (D) DISJOIN
20. If BACK is written as AZBJ, how is LACK written? [**B**]
(A) JZBJ (B) KZBJ (C) LZBJ (D) MZBJ
21. If 'oranges' are 'apples', 'bananas' are 'apricots', 'apples' are 'chillies', 'apricots' are 'oranges' and 'chillies' are 'bananas', then which of the following are green in colour? [**B**]
(A) Apricots (B) Apples (C) Chillies (D) Bananas
22. If 'pen' is 'table' is 'fan', 'fan' is 'chair' is 'roof', on which of the following will a person sit? [**A**]
(A) Fan (B) Chair (C) Roof (D) Table
23. If 'bat' is 'racket', is 'football', 'football' is 'shuttle', 'shuttle' is 'ludo' and 'ludo' is 'carrom', what is cricket played with? [**A**]
(A) Racket (B) Football (C) Bat (D) Shuttle
24. If 'sky' is 'star' is 'cloud', 'cloud' is 'earth', 'earth' is 'tree' and 'tree' is 'book', then where do the birds fly? [**C**]
(A) Cloud (B) Sky (C) Star (D) Data inadequate
25. If 'room' is called 'bed', 'bed' is called 'window', 'window' is called 'flower' and 'flower' is called 'cooler', on what would a man sleep? [**B**]
(A) Window (B) Bed (C) Flower (D) Cooler

CHAPTER – 9

CHAPTER – 10

DICTIONARY TEST

Directions (1 to 5): Select the word that comes first when these words are arranged in alphabetical order.

- | | | | | | |
|----|--------------|--------------|-------------|-------------|--------------|
| 1. | (A) altitude | (B) attitude | (C) alter | (D) attire | [C] |
| 2. | (A) duster | (B) dust | (C) dustbin | (D) dusk | [D] |
| 3. | (A) tennis | (B) tendon | (C) tender | (D) tempest | [D] |
| 4. | (A) rigour | (B) remove | (C) rumour | (D) revive | [B] |
| 5. | (A) cough | (B) council | (C) couch | (D) count | [C] |

Directions (6 to 10): Select the word that comes last when the words are arranged in a way it is arranged in a dictionary.

- | | | | | | |
|-----|----------------|-----------------|---------------|---------------|--------------|
| 6. | (A) radical | (B) radiate | (C) racket | (D) radar | [A] |
| 7. | (A) section | (B) secular | (C) seclude | (D) secure | [D] |
| 8. | (A) savour | (B) save | (C) savage | (D) saviour | [A] |
| 9. | (A) understand | (B) unnecessary | (C) uncertain | (D) unethical | [A] |
| 10. | (A) descant | (B) descent | (C) derive | (D) derogate | [B] |

Directions (11 – 15): In the words given below, choose the one arranged in alphabetical order as done in a dictionary.

- | | | | | | |
|-----|----------------|----------------|----------------|----------------|--------------|
| 11. | (1) Wasp | (2) Waste | (3) War | (4) Warm | [A] |
| | (A) 3, 4, 1, 2 | (B) 2, 3, 4, 1 | (C) 3, 1, 4, 2 | (D) 2, 4, 3, 1 | |
| 12. | (1) Science | (2) Scrutiny | (3) Scripture | (4) Scramble | [B] |
| | (A) 2, 4, 3, 1 | (B) 1, 4, 3, 2 | (C) 3, 4, 2, 1 | (D) 2, 4, 1, 3 | |
| 13. | (1) Quarter | (2) Quarrel | (3) Quarry | (4) Quart | [A] |
| | (A) 1, 2, 3, 4 | (B) 2, 3, 4, 1 | (C) 2, 1, 3, 4 | (D) 4, 3, 2, 1 | |
| 14. | (1) Necessary | (2) Naval | (3) Navigate | (4) Nautical | [D] |
| | (A) 1, 2, 3, 4 | (B) 3, 4, 2, 1 | (C) 1, 4, 2, 3 | (D) 4, 2, 3, 1 | |
| 15. | (1) Plane | (2) Plain | (3) Player | (4) Place | [C] |
| | (A) 1, 2, 3, 4 | (B) 2, 3, 4, 1 | (C) 4, 2, 1, 3 | (D) 3, 2, 1, 4 | |

Directions (16 to 20): In the words given below choose the one that comes second when arranged in alphabetical order as is done in dictionary.

- | | | | | | |
|-----|------------|--------------|------------|-------------|--------------|
| 16. | (A) guilty | (B) guinea | (C) grudge | (D) guest | [A] |
| 17. | (A) mouse | (B) mortar | (C) moth | (D) mortal | [D] |
| 18. | (A) paper | (B) palmtree | (C) pane | (D) pampas | [D] |
| 19. | (A) rapid | (B) rash | (C) ration | (D) ray | [B] |
| 20. | (A) dive | (B) doily | (C) dormer | (D) dolphin | [B] |

Directions (21 – 25): In the words given below, choose the word that comes third when arranged in alphabetical order as done in a dictionary.

- | | | | | |
|-----|-------------|-------------|-------------|---------------------------|
| 21. | (A) Plastic | (B) Plateau | (C) Plasma | (D) Platinum [A] |
| 22. | (A) Elite | (B) Elicit | (C) Elixir | (D) Ellipse [A] |
| 23. | (A) Delude | (B) Deliver | (C) Delight | (D) Demand [B] |
| 24. | (A) Resound | (B) Respect | (C) Resign | (D) Resist [B] |
| 25. | (A) Spoon | (B) Spoof | (C) Spoor | (D) Spook [A] |

CHAPTER – 11

BASIC ARITHMETIC

Direction (1-25): Read the following questions carefully and choose the right answer.

1. A shepherd had 17 sheep. All but nine died. How many was he left with? [**B**]
(A) 8 (B) 9 (C) 17 (D) Nil
2. Find the number which when added to 13 times of itself gives 112. [**B**]
(A) 7 (B) 8 (C) 9 (D) 11
3. $93 - (27 + 63) = ?$ [**C**]
(A) 7 (B) 5 (C) 3 (D) 8
4. $7691 - \underline{\hspace{2cm}} = 3481$ [**D**]
(A) 4211 (B) 4310 (C) 4410 (D) 4210
5. $0.07 \times 0.008 = ?$ [**A**]
(A) 0.00056 (B) 0.056 (C) 56 (D) 0.56
6. 25% of 60 = ? [**B**]
(A) 20 (B) 15 (C) 10 (D) 30
7. $1344/8 = ?$ [**D**]
(A) 162 (B) 164 (C) 166 (D) 168
8. $(205 \times 4) + 2 = ?$ [**A**]
(A) 820 (B) 822 (C) 821 (D) 824
9. $(12 - 3)2 - 9 = ?$ [**D**]
(A) 82 (B) 71 (C) 73 (D) 72
10. $\sqrt{25} + x = 10; x = ?$ [**B**]
(A) 5 (B) 4 (C) 10 (D) 2
11. If \div means \times , \times means $+$, $+$ means $-$ and $-$ means \div find the value of $16 \times 3 + 5 - 2 \div 4$ [**A**]
(A) 9 (B) 10 (C) 19 (D) None of these
12. If $+$ mean \div , \div means $-$, $-$ means \times , \times means $+$, then $12 + 6 \div 3 - 2 \times 8 = ?$ [**D**]
(A) -2 (B) 2 (C) 4 (D) 8

13. If + means -, - means x, \div means + and x means \div , then $15 - 3 + 10 \times 5 \div 5 = ?$ [**C**]
 (A) 5 (B) 22 (C) 48 (D) 52
14. If x means \div , - means x, \div means + and + means -, then $(3 - 15 \div 19) \times 8 + 6 = ?$ [**B**]
 (A) -1 (B) 2 (C) 4 (D) 8
15. If x means +, + means \div , - means x and \div means -, then $8 \times 7 - 8 + 40 \div 2 = ?$ [**A**]
 (A) 1 (B) $7(2/5)$ (C) $8(3/5)$ (D) 44
16. $[77 \div (8 + 3)] / [2.5 + 8/8] = ?$ [**A**]
 (A) 2 (B) 5 (C) 11 (D) None of these
17. $6666 + 666 + 66 + 6 = ?$ [**C**]
 (A) 7404 (B) 6404 (C) 8414 (D) 8404
18. $[5 \times 2 + 2^2] / [3 \times 4 - (3 + 2)] = ?$ [**C**]
 (A) $4/3$ (B) $4/5$ (C) 2 (D) 1
19. $1 + [1/(1+1/4)] = ?$ [**A**]
 (A) $9/5$ (B) $5/9$ (C) $6/5$ (D) $5/6$
20. $(0.05)^4$ [**C**]
 (A) 0.0001255 (B) 0.0000625 (C) 0.00000625 (D) 0.000625
21. $1 - 2 + 3 - 4 + 5 \dots\dots\dots - 10 + 11 =$ [**C**]
 (A) 0 (B) 1 (C) 6 (D) -55
22. $\frac{1}{2}[1/3 + 1/4] - 7/24 =$ [**C**]
 (A) $7/12$ (B) $14/48$ (C) 0 (D) 1
23. $0.3 \times 0.04 \times 0.002 =$ [**D**]
 (A) 0.0024 (B) 0.00024 (C) 0.000204 (D) None of these
24. $(3 + 2)(9 - 6 + 4) \div (27 + 8) =$ [**A**]
 (A) 1 (B) 0 (C) 25 (D) 50

QUANTITATIVE REASONING

CHAPTER – 1

BASICS OF NUMBER SYSTEM

- Oh! I am really heavy. If you add 10 kg to my weight. I will weight a quintal. My weight is ____kg. (Hint: 1 quintal = 100kg) [**C**]
(A) 10 (B) 50 (C) 90 (D) 100
- Anup filled his car petrol tank with 12 litres of petrol on Sunday. On Thursday he again filled his tank with 10 litres of petrol. If the petrol costs Rs 77 per litre, how much did he spent in all on petrol? [**A**]
(A) 1694 (B) 924 (C) 770 (D) 1760
- Rohan is a waiter at a restaurant. On Saturday he gets up at 6:30 A.M., starts work at 10 A.M. and finishes at 10 P.M. then he works on Saturday for ____ hours. [**D**]
(A) 8 (B) 24 (C) 15(1/2) (D) 12
- The number 7404 is not divisible by [**D**]
(A) 2 (B) 3 (C) 6 (D) 11
- The product of two numbers is 10115 and the LCM of the numbers is 595, then HCF of the numbers is [**B**]
(A) 35 (B) 17 (C) 25 (D) 19
- Which of the following is the least number divisible by 2, 3, 4, 5, 6, 8 and 9? [**C**]
(A) GCD of the 2, 3, 4, 5, 6, 8, 9 (B) LCM of 2, 3, 4, 5, 6, 9 (C) 360 (D) 720
- Among the following a prime number is [**B**]
(A) 91 (B) 41 (C) 81 (D) 51
- Co-primes among the following are [**C**]
(i) (7, 14) (ii) (8, 18) (iii) (3, 4) (iv) (16, 15)
(A) (i), (ii) (B) (ii), (iii) (C) (iii), (iv) (D) all of the above
- The product of $\frac{a}{b}$ and $\frac{c}{d}$ is [**D**]
(A) $\frac{ab}{cd}$ (B) $\frac{ad}{bc}$ (C) $\frac{ac}{(b+d)}$ (D) $\frac{ac}{bd}$

10. _____ x (-14) = 70 [**A**]
(A) -5 (B) 5 (C) -1/5 (D) 1/5
11. -72 x _____ = -360 [**B**]
(A) -5 (B) 5 (C) -1/5 (D) 1/5
12. If you multiply a negative integer by a positive integer or a positive integer by a negative integer, the product is a _____ integer. [**A**]
(A) Negative integer (B) Positive integer (C) Zero (D) cannot be determined
13. If you multiply two negative integers, the product is a _____ integer. [**B**]
(A) Negative integer (B) Positive integer (C) Zero (D) cannot be determined
14. The Product of even number of negative integers is a _____ integer. [**B**]
(A) Negative integer (B) Positive integer (C) Zero (D) cannot be determined
15. The Product of odd number of negative integers is a _____ integer. [**A**]
(A) Negative integer (B) Positive integer (C) Zero (D) cannot be determined
16. Division of a negative integer by a positive integer or a positive integer by a negative integer gives the quotient a _____ integer. [**A**]
(A) Negative integer (B) Positive integer (C) Zero (D) cannot be determined
17. The sum of the additive inverse and multiplicative inverse of 2 is..... [**C**]
(A) 3/2 (B) 1/2 (C) -3/4 (D) -1/2
18. What number should be added to -3/4 to get +7/6? [**C**]
(A) 11/24 (B) 10/25 (C) 23/12 (D) 9/24
19. A perfect square number doesn't end with the following digit [**A**]
(A) 3 (B) 4 (C) 5 (D) 6
20. 0.037 is equal to [**C**]
(A) 37/10 (B) 37/100 (C) 37/1000 (D) None
21. The square root of 144 is [**C**]
(A) 10 (B) 11 (C) 12 (D) 122
22. The value of $\sqrt{36} + \sqrt{64}$ is [**C**]
(A) 10 (B) 12 (C) 14 (D) 100
23. Identify the perfect cube from the given numbers. [**D**]

- (A) 125 (B) 81 (C) 64 (D) both A and C
24. Additive inverse of 5 is _____ [**A**]
- (A) -5 (B) 0 (C) 1 (D) 1/5
25. Multiplicative inverse of 11 is _____ [**C**]
- (A) -1/11 (B) 0 (C) 1/11 (D) 1

CHAPTER – 2

FRACTIONS AND DECIMALS

1. Avni completed $\frac{1}{5}$ of her holiday homework on Monday and $\frac{3}{4}$ of it on Tuesday. How much of her holiday homework did Avni complete in the two days? [**D**]
- (A) 1 (B) $\frac{4}{9}$ (C) $\frac{3}{20}$ (D) $\frac{19}{20}$
2. In a class of 50 students, 15 are girls. 5 girls and $\frac{2}{7}$ of the boys were chosen to play a match. The total number of students chosen to play a match is _____ [**C**]
- (A) 24 (B) 25 (C) 15 (D) 42
3. What fraction of a day is 8 hours? [**B**]
- (A) $\frac{9}{24}$ (B) $\frac{8}{24}$ (C) $\frac{8}{60}$ (D) $\frac{3}{4}$
4. Kanchan dyes dresses. She had to dye 30 dresses. She has so far finished 20 dresses. What fraction of dresses has she finished? [**B**]
- (A) $\frac{1}{3}$ (B) $\frac{2}{3}$ (C) $\frac{3}{2}$ (D) $\frac{3}{4}$
5. Mother made a roti in a round shape. She divided it into 5 parts. Seema ate one place from it. If I eat another piece then how much would be left? [**B**]
- (A) $\frac{2}{3}$ (B) $\frac{3}{5}$ (C) $\frac{1}{5}$ (D) $\frac{4}{5}$
6. Reshma bought $5\frac{1}{2}$ m ribbon from the market. She cut off a $2\frac{3}{4}$ m piece of ribbon from it and gave it to Sushima. What length of ribbon is left with her? [**A**]
- (A) $2\frac{3}{4}$ (B) $3\frac{2}{4}$ (C) $4\frac{2}{3}$ (D) $\frac{12}{4}$
7. Naina was given $1\frac{1}{2}$ piece of cake and Najma was given $1\frac{1}{3}$ piece of cake. Find the total amount of cake given to both of them. [**B**]
- (A) $\frac{2}{7}$ (B) $\frac{17}{6}$ (C) $\frac{17}{16}$ (D) $\frac{17}{7}$
8. Sita was given $\frac{5}{7}$ of a basket of apples. What fraction of apples was left in the basket? [**C**]
- (A) $\frac{3}{7}$ (B) $\frac{4}{7}$ (C) $\frac{2}{7}$ (D) $\frac{6}{7}$

9. My elder sister divided the watermelon into 16 parts. I ate 7 out them. My friend ate 4. How much did we eat altogether? [**A**]
 (A) $11/16$ (B) $13/16$ (C) $7/16$ (D) $10/16$
10. When any number is divided by 1, the quotient is _____. [**D**]
 (A) 0 (B) 1 (C) 2 (D) number itself
11. Subtract 3.36 from 7.03 [**C**]
 (A) 3.76 (B) 4.36 (C) 3.67 (D) 3.57
12. Three equivalent fractions of $2/3$ are _____. [**B**]
 (A) $2/6, 3/6, 4/12$ (B) $4/6, 6/9, 8/12$ (C) $3/6, 8/6, 8/12$ (D) $4/6, 7/6, 3/6$
13. The fractional form of 0.7 is _____. [**A**]
 (A) $7/10$ (B) $7/100$ (C) $7/2$ (D) $10/7$
14. The whole number part of 16.8 is _____. [**C**]
 (A) 8 (B) 168 (C) 16 (D) $168/10$
15. The digit in the hundredths place of 1792.635 is _____. [**D**]
 (A) 6 (B) 5 (C) 9 (D) 3
16. The place value of 7 in 6.7 is _____. [**C**]
 (A) tens (B) hundreds (C) tenths (D) hundredths
17. The point between the whole number part and the decimal part of the decimal number is called _____. [**B**]
 (A) decimal point (B) whole number (C) fraction (D) fractional point
18. Decimal form of $9/1000$ is _____. [**B**]
 (A) 0.09 (B) 0.009 (C) 0.0009 (D) 0.00009
19. Jhanvi had Rs 16.50. She bought one Ice cream for Rs 7.75. Money left with her now is _____. [**C**]
 (A) Rs. 8 (B) Rs.8.50 (C) Rs. 8.75 (D) Rs. 24.25
20. Arrange the following in ascending order. $3/5, 2/3, 1/2, 1/4$ [**A**]
 (A) $1/4, 1/2, 3/5, 2/3$ (B) $1/2, 2/3, 1/4, 3/5$ (C) $1/4, 2/3, 1/2, 3/5$ (D) $1/4, 1/2, 2/3, 3/5$
21. Krishna travelled 6km 48m by car, 1km 138m by walk and 12km 500m by bus. How much distance did he travel in all? [**A**]
 (A) 19km 686m (B) 18km 676m (C) 19km 676m (D) 18km 686m

22. Radha bought 7.9m of dress material for her sister and 8.15m for herself. How much dress material did she buy for both? [**C**]
 (A) 15.95m (B) 16.05m (C) 15.24m (D) 16.24m
23. Add $9.34 + 5.77$ [**B**]
 (A) 15.01m (B) 15.11m (C) 14.91m (D) 15.07m
24. Ashish walks 4.23km in the morning and 3.78km in the evening. How much distance does he cover each day [**B**]
 (A) 8.11km (B) 8.01km (C) 7.91km (D) 8.04km
25. $9.34 \div 4.67 =$ [**C**]
 (A) 2.2 (B) 2.22 (C) 2 (D) None of these

CHAPTER – 3

SIMPLE EQUATIONS

1. Solve for x: $3x - 5 = 7x - 45$ [**B**]
 (A) 10 (B) -20 (C) 5 (D) -15
2. Find the value of x if $2(x - 1) = x - 5$ [**A**]
 (A) -3 (B) -2 (C) -4 (D) -5
3. Thrice a number is 24 more than one-third of it. Find the number. [**B**]
 (A) 8 (B) 9 (C) 12 (D) 15
4. The solution of the equation $x - 5 = 2$ is: [**B**]
 (A) $x = 3$ (B) $x = 7$ (C) $x = -3$ (D) $x = -7$
5. The solution of the equation $2x - 3 = 5$ is: [**B**]
 (A) $x = 3$ (B) $x = 6$ (C) $x = 5$ (D) $x = 4$
6. The solution of the equation $(2x + 5)/3 = 7$ is [**A**]
 (A) $x = 8$ (B) $x = 21$ (C) $x = 5$ (D) $x = 1$
7. Which of the following is not an equation? [**A**]
 (A) $2x + 5 < 5$ (B) $2x + 5 = 15$ (C) $-2x + 5 = 15$ (D) $2x + 5 = -15$
8. The equation corresponding to the statement if you add 3 to one – third of x, you get 18 is: [**D**]

(A) $3 + x/3 = 18$ (B) $3x(x/3) = 18$ (C) $3x + 1/3 = 18$ (D) $1/3x3x = 18$

9. If $2x - 4 = x + 5$ then the value of x is [**A**]

(A) 3 (B) 6 (C) 9 (D) 4

10. If $(1 - 9y)/(19 - 3y) = 5/8$, then the value of y is [**C**]

(A) $19/29$ (B) $-77/19$ (C) $29/19$ (D) $-29/19$

11. The solution for $a/3 - a/4 = 5$ is [**C**]

(A) 60 (B) -60 (C) 5 (D) -5

12. If $7p + 5 - p = 4p$ then p equals [**D**]

(A) 5 (B) $5/2$ (C) $-5/2$ (D) $-2/5$

13. In $2/3p - 2(1/2) = 3(1/2)$, the value of p is _____ [**C**]

(A) -9 (B) 6 (C) 9 (D) 0

14. If $3/4x + 8 = 17$, then the value of x is _____ [**C**]

(A) -12 (B) 36 (C) 12 (D) -36

15. The value of x which satisfies the equation $5/(x-3) = 2/(3-x)$ is _____ [**D**]

(A) 2 (B) 3 (C) 4 (D) 5

16. The solution of $2(2x-1) - 5(3x-1) = 4$ is [**B**]

(A) $-1/11$ (B) $1/11$ (C) $3/11$ (D) $-3/11$

17. Given that $-2 + 4k = 9 - 7k$. Find k [**A**]

(A) $1/3$ (B) $2/3$ (C) $3/2$ (D) 1

18. If $(2n+5) = 3(3n-10)$, then the value of n is _____. [**D**]

(A) -5 (B) 5 (C) 4 (D) -4

19. If $2x + 3/2x = 49$ then $1/7x = ?$ [**A**]

(A) 2 (B) 1 (C) 3 (D) 7

20. The equation $7/(x-3) = -2/(x+5)$ has [**C**]

(A) many solutions (B) No solutions (C) One solution (D) Two solutions

CHAPTER – 4

PROBLEMS ON AGES AND NUMBERS

1. The sum of two numbers is 45 and their ratio is 7:8. The numbers are [**C**]
(A) 28; 32 (B) 35; 40 (C) 21; 24 (D) none of these
2. The sum of two digits of a two digit number is 12. If the digits are reversed, then the number so formed exceeds the original number by 18. Find the original number. [**A**]
(A) 57 (B) 58 (C) 56 (D) 55
3. Ramu's father is thrice as old as Ramu. If father's age is 45 years then Ramu's age [**C**]
(A) 45yrs (B) 30yrs (C) 15yrs (D) 10yrs
4. One number is 3 less than two times of the other. If their sum is increased by 7, the result is 37. Find the numbers. [**C**]
(A) 9, 11 (B) 11, 13 (C) 11, 19 (D) 9, 13
5. If the sum of the five consecutive numbers is 360, then the middle number is [**B**]
(A) 71 (B) 72 (C) 73 (D) 74
6. Sum of 2 digit number and its digits reversed number is always [**C**]
(A) multiple of 9 (B) odd (C) multiple of 11 (D) even
7. A boy was asked to multiply a certain number by 25 multiplies it by 52 and got answer more than the correct one by 324. The number to be multiplied was: [**A**]
(A) 12 (B) 15 (C) 25 (D) 32
8. What fraction must be subtracted from the sum of $\frac{1}{4}$ and $\frac{1}{6}$ to get $\frac{1}{12}$? [**B**]
(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{1}{12}$
9. In a garden, there are 10 rows and 12 columns of mango trees. The distance between two trees is 2 meters and a distance of one meter is left from all sides of the boundary of the garden. The length of the garden is [**C**]
(A) 18 m (B) 22 m (C) 24 m (D) 26 m
10. In a school, $\frac{1}{6}$ th of the girls and $\frac{1}{7}$ th of the boys took part in N.C.C. camp. What fraction of the total number of students in the college took part in the camp? [**D**]
(A) $\frac{13}{40}$ (B) $\frac{13}{80}$ (C) $\frac{2}{13}$ (D) Data inadequate
11. $\frac{1}{4}$ of Nikhil's money is equal to $\frac{1}{6}$ of Yogesh's money. If both together have Rs. 600, the difference between their amounts is [**D**]
(A) Rs. 50 (B) Rs. 120 (C) Rs. 240 (D) Rs. 360

12. The sum of two numbers is 45 and their ratio is 7 : 8. The numbers are [**C**]
(A) 28; 32 (B) 35; 40 (C) 21; 24 (D) none of these
13. The sum of two digits of a two digit number is 12. If the digits are reversed , the number so formed exceeds the original number by 18. Find the original number. [**A**]
(A) 57 (B) 58 (C) 56 (D) 55
14. If the sum of the five consecutive number is 360, then the middle number is [**B**]
(A) 71 (B) 72 (C) 73 (D) 74
15. The ages of two persons differ by 20 years. If 5 years ago, the elder one be 5 times as old as the younger one, their present ages (in years) are respectively [**D**]
(A) 20, 20 (B) 20, 10 (C) 25, 15 (D) 30, 10
16. Cost of five pencils and three erasers is Rs. 31 and cost of two pencils and four erasers is Rs. 18. Cost of pencil and eraser is_____ and _____ respectively. [**A**]
(A) Rs. 5, Rs. 2 (B) Rs. 3, Rs. 1 (C) Rs. 4, Rs. 2 (D) Rs. 5, Rs. 3
17. One number is 3 less than two times the other. If their sum is increased by 7, the result is 37. Find the numbers. [**C**]
(A) 9, 11 (B) 11, 13 (C) 11, 19 (D) 9, 13
18. The sum of the digits of a two-digit number is 9. When 45 is added to this number, the digits are reversed. The number is: [**B**]
(A) 72 (B) 27 (C) 54 (D) 45
19. Two complementary angles differ by 20° . The larger angle is: [**D**]
(A) 35° (B) 50° (C) 70° (D) 55°
20. Cost of 25 pencils and 20 sharpeners is Rs. 100. If the cost of sharpener is more than the cost of pencil by 50 paise, what is the total cost of 3 pencils and 4 sharpeners? [**C**]
(A) Rs. 10 (B) Rs. 20 (C) Rs. 16 (D) None of these
21. 2 chairs and 3 tables cost Rs. 1025 and 3 chairs and 2 tables cost Rs. 1100. What is the difference between the cost of the one table and one chair? [**C**]
(A) -75 (B) -70 (C) 75 (D) None of these
22. the numbers x, y, z are such that $xy=96050$ and $xz=95625$ and y is greater than z by one. Find out the number z. [**B**]
(A) 250 (B) 230 (C) 210 (D) 225
23. The difference between the largest and smallest three digits number formed by using the digit 1, 9, 8 is _____ [**A**]

9. 10% of 25 : 10% of 250 - [**A**]
 (A) 1:10 (B) 1:100 (C) 1:1 (D) 1:20
10. If $2.4p = 0.08q$, then $(q+p)/(q-p) =$ [**C**]
 (A) $31/28$ (B) $31/27$ (C) $31/29$ (D) $39/35$
11. If $a = (9/8)b$, then $(3b/4a) =$ [**A**]
 (A) $2/3$ (B) $1/3$ (C) $31/29$ (D) $39/35$
12. Thirty five sweets are distributed among Sita and Gita in the ratio 4:3. Find the number of Sweets received by Sita. [**C**]
 (A) 28 (B) 21 (C) 20 (D) 15
13. In a ratio, which is equal to 3:4, if the antecedent is 18, then the consequent is ____? [**B**]
 (A) 9 (B) 16 (C) 20 (D) 24
14. The simplest form of the ratio 130:80 is _____ [**B**]
 (A) 16 : 13 (B) 13 : 8 (C) 13 : 16 (D) 8 : 13
15. The ratio $1/3:1/4$ with their terms as natural numbers is _____ [**B**]
 (A) 4 : 6 (B) 4 : 3 (C) 3 : 4 (D) 12 : 17
16. In the word HANDSOME, the ratio of number of consonants to the number of vowels is _____ [**C**]
 (A) 2:3 (B) 4:1 (C) 5:3 (D) 1:1
17. The ratio of 7 m and 5 cm is equal to _____. [**D**]
 (A) $7/5$ (B) $1400/100$ (C) $0.14 : 10$ (D) $140 : 1$
18. A bag contains an equal number of one rupee, 50 paise, and 25 paise coins respectively. If the total value is Rs. 70, how many coins of each type are there? [**A**]
 (A) 40 (B) 50 (C) 60 (D) 80
19. The ratio of the number of boys and girls in a school is 4:3. If there are 350 students in the school, find the number of boys in the school. [**A**]
 (A) 200 (B) 150 (C) 140 (D) 210
20. The sum of the present ages of A, B and C is 90 years. Six years ago, their ages were in the ratio 1:2:3. What is the present age of B? [**A**]
 (A) 30 years (B) 18 years (C) 42 years (D) 36 years

21. There are three numbers x , y and z in the ratio 3:2:5 such that sum of their squares is equal to 1862. Find x . [**C**]
(A) 14 (B) 10 (C) 7 (D) 21
22. The scores of Mohan and Sohan in a test are in the ratio 5:4. If their total score is 135, find Mohan's score? [**B**]
(A) 60 (B) 75 (C) 45 (D) 90
23. If $a:b = 3:4$, then find $(3a+4b) : (4a+5b)$. [**B**]
(A) $5/6$ (B) $32/35$ (C) $25/32$ (D) $6/5$
24. A husband's age exceeds that of his wife by 6 years. 10 years ago, the ratio of their ages was 5:4. Find the present age of the husband. [**A**]
(A) 30 years (B) 50 years (C) 40 years (D) 20 years
25. If $a:b = b:c = 2:3$, find $a:b:c$. [**D**]
(A) 2:3:1 (B) 1:2:3 (C) 2:3:4 (D) 4:6:9

CHAPTER – 6

PERCENTAGES

1. What percent of 270 kg is 108 kg? [**C**]
(A) 36% (B) 39.75% (C) 40% (D) 42.5%
2. What percent of 50 is b ? [**D**]
(A) $b/50$ (B) $b/2$ (C) $50/b$ (D) $2b$
3. 9 is $1/3\%$ of _____. [**D**]
(A) 27 (B) 3 (C) 36 (D) 2700
4. 5% of 25 = [**C**]
(A) 1.25 (B) 25 (C) 5 (D) 50
5. If 10% of an electricity bill is deducted, Rs. 45 is the final bill. The original bill was _____. [**B**]
(A) Rs. 55 (B) Rs. 50 (C) Rs. 105 (D) Rs. 95
6. What percent of 200 kg is 80 kg? [**C**]
(A) 36% (B) 39.75% (C) 40% (D) 42.5%

7. What percent of 30 is 6? [**B**]
(A) 20 (B) 15 (C) 22 (D) 25
8. 64% of a number is 416, Find 85% of that number. [**A**]
(A) 552.5 (B) 450 (C) 457.5 (D) 352.5
9. The height as well as the base of a triangle are increased by 30%, Find the increase in its area. [**B**]
(A) 69% (B) 60% (C) 30% (D) 75%
10. If 40% of 50 = x% of 80, what is the value of x? [**B**]
(A) 20 (B) 25 (C) 30 (D) 40
11. What percentage of 80 is 200? [**A**]
(A) 50% (B) 40% (C) 200% (D) 250%
12. 32% of what number is 256? [**B**]
(A) 1024 (B) 800 (C) 640 (D) 400
13. If 60% of x is 60 more than 60% of 60, then 60% of x is [**C**]
(A) 90 (B) 94 (C) 96 (D) 92
14. If 60% of 70% of a number is 1680, then find the number. [**A**]
(A) 2000 (B) 3000 (C) 4000 (D) 5000
15. If 'a' is a positive number, 200% of 'a' is what percent of 200a? [**A**]
(A) 1% (B) 10% (C) 100% (D) None of these
16. If 30 students took an examination and 6 of them failed, what percent of them passed. [**B**]
(A) 80% (B) 60% (C) 20% (D) 40%
17. 50% of the students of a school are from Kerala and out of this 50% are from Kochi. What percent of the students in the school are from Kochi? [**A**]
(A) 25% (B) 20% (C) 40% (D) 10%
18. A positive number was decreased by 20% and then increased by 20%, Find the percentage change in it. [**C**]
(A) 2% decrease (B) 0% (C) 4% decrease (D) 4% increase
19. 250% of 500 is: [**B**]
(A) 750 (B) 1250 (C) 1000 (D) 1750

20. 1% of 100 + 100% of 1 is: [**A**]
(A) 2 (B) 11 (C) 101 (D) 200
21. If Ram's salary is 20% less than Shyam's salary, by what percentage is Shyam's salary more than Ram's salary? [**B**]
(A) 20% (B) 25% (C) $16\frac{2}{3}\%$ (D) $33\frac{1}{3}\%$
22. The price of Swiss watch was Rs. 10000 in 2001. Due to devaluation of the rupee, it becomes Rs. 12,000 in 2002. [**A**]
(A) 20% (B) 25% (C) 10% (D) $16\frac{2}{3}\%$
23. If a% of b is b, then what is b% of a? [**B**]
(A) a (B) b (C) ab (D) a/b
24. A man's salary is increased by 5% and his new salary is Rs. 1680. What was his original salary? [**C**]
(A) Rs. 1600 (B) Rs. 1540 (C) Rs. 1620 (D) Rs. 1400
25. In an election between two candidates, the candidate who gets 30% of the votes polled is defeated by 15,000 votes. What is the number of votes polled for the winning candidate? [**A**]
(A) 50000 (B) 25000 (C) 26250 (D) 75000

CHAPTER – 7

AVERAGES

1. The average of the numbers 41, 45, 49, 53, 57, 61, 65, 69 and 73 is: [**B**]
(A) 58 (B) 57 (C) 59 (D) 60
2. Find the average of the numbers from 21 to 30 [**C**]
(A) 25 (B) 19 (C) 25.5 (D) 21.5
3. Find the average of two digit numbers up to 50 that are divisible by 10. [**B**]
(A) 40 (B) 30 (C) 45 (D) 60
4. Find the average of all the odd numbers less than 20. [**C**]
(A) 8 (B) 9 (C) 10 (D) 11
5. Find x, if the average of 17, 26 and x is 22. [**B**]
(A) 18 (B) 22 (C) 1 (D) 23

6. Find the average of the numbers 13, 17, 220, 20, 30. [**D**]
(A) 60 (B) 48 (C) 50 (D) 58
7. Find the average of first six multiples of 2. [**A**]
(A) 7 (B) 6 (C) 12 (D) 14
8. The average of N numbers is x. If each number is doubled, find the new average. [**B**]
(A) x (B) 2x (C) $x/2$ (D) $x+2$
9. The average age of three boys is 14 years. If their ages are in the ratio 3:4:7, the age of the youngest boy is [**A**]
(A) 9 years (B) 12 years (C) 21 years (D) none of these
10. Find the average of all the multiples of 12 less than 100. [**D**]
(A) 48 (B) 54 (C) 60 (D) 66
11. Find the average of first 5 multiples of 50. [**B**]
(A) 100 (B) 150 (C) 50 (D) 125
12. Find the average of first 10 prime numbers. [**A**]
(A) 12.9 (B) 10 (C) 13.1 (D) 11.01
13. A man buys 100 articles at Rs. 3 each. He sells 70 of them at Rs. 4 each, and the rest at Rs. 2 each. Find his average profit per article sold. [**B**]
(A) Rs. 1.10 (B) Rs. 0.4 (C) Rs. 2.80 (D) Rs. 2.15
14. A tree is 24.6 m in height, another tree is half its height and the third one is its one-third. What is the average height of the three trees? [**D**]
(A) 8.2 m (B) 16.4 m (C) 12.3 m (D) none of these
15. The average age of four friends is 13 years. Now, with a new friend joining the group, their average becomes 13.5 years. What is the present age of the new friend? [**C**]
(A) 16 years (B) 15 years (C) 15.5 years (D) 13.5 years
16. The average of four number is 15 and the sum of three numbers is 50. Find the fourth number. [**A**]
(A) 10 (B) 12 (C) 14 (D) 15
17. The average of all the multiples of five from 5 to 35 inclusive is____ [**B**]
(A) 25 (B) 20 (C) 25.5 (D) 27

18. The average of 5 quantities is 5. The average of three of those 5 quantities is 7. The average of the two remaining quantities is [**B**]
(A) 3 (B) 2 (C) 4 (D) 5
19. The average weight of 8 boys is 40 kg. Two more boys of weights 38 kg and 40 kg join the group. The average weight of the new group so formed is [**B**]
(A) 41.5 kg (B) 39.8 kg (C) 43.8 kg (D) 40 kg
20. In first three tests the average score of Srinidh was 60 marks. After the fourth test his average score was 70 marks. His score in 4th test was _____ [**B**]
(A) 200 (B) 100 (C) 50 (D) 400
21. The average of three numbers is 30. If two of these numbers are 30 and 40, find the third number. [**D**]
(A) 20 (B) 30 (C) 40 (D) 35
22. The average of four consecutive odd numbers is 6. Find the largest number? [**D**]
(A) 5 (B) 9 (C) 7 (D) 11
23. The average of 12 results is 15. The average of the first 5 results is 13 and that of the last 5 is 16. Find the average of the other two. [**B**]
(A) 15 (B) 17.5 (C) 12.5 (D) 16.5
24. The average of a set of numbers is b . If each number is decreased by 50%, find the new average. [**C**]
(A) b (B) $2b$ (C) $b/2$ (D) None of these
25. The average monthly salary of 20 employees in an organization is Rs. 2000. If the manager's salary is added, then the average salary increases by Rs. 200. What is the manager's monthly salary? [**D**]
(A) Rs. 6200 (B) Rs. 6000 (C) Rs. 4400 (D) Rs. 4000