

SAMPLE PAPER GROUP DELTA

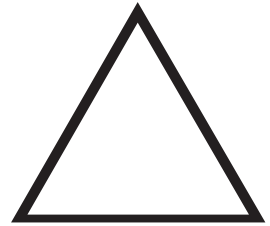
MATHEMATICS SECTION

Q1. Simplify: $(5x + 3x - 4) + (7 - 2x)$.

- a) b)
c) d)

Q2. Find area of triangle with base 12 cm, height 8 cm.

- a) b)
c) d)



Q3. Solve: $2(3y - 5) = 16$.

- a) b)
c) d)

Q4. A shopkeeper offers 20% discount on Rs. 1500. What is selling price?

- a) b)
c) d)

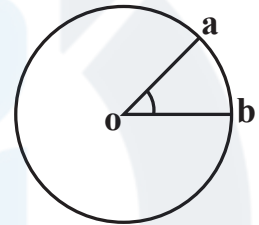
Q5. If a train travels 120 km in 2 hours, find its speed.

- a)  b) 

c)  d) 

Q6. Find area of circle ($p = 22/7$).

- a)  b) 
- c)  d) 



Q7. Probability of getting head when a coin is tossed?

- a) b)
c) d)

Q8. Ratio of boys to girls is 3:5. If 40 girls, how many boys?

- a) b)
c) d)

Q9. Expand: $(a + b)(a - b)$.

a)

b)

c)

d)

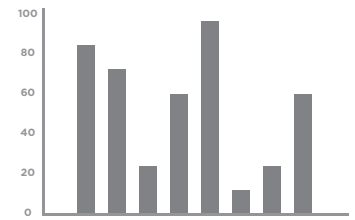
Q10. Which subject has highest marks?

a)

b)

c)

d)



Q11. Find simple interest on Rs. 5000 at 10% per annum for 2 years.

a)

b)

c)

d)

Q12. Convert 0.375 into fraction in lowest terms.

a)

b)

c)

d)

Q13. If 4 pencils cost Rs. 36, what is cost of 10 pencils?

a)

b)

c)

d)

Q14. How many vertices does a cube have?

a)

b)

c)

d)



Q15. Solve: $5x - 7 = 18$.

a)

b)

c)

d)

Q16. Average of 15, 25, 35, 45, 55 is?

a)

b)

c)

d)

Q17. If perimeter of square is 48 cm, find its side.

a)

b)

c)

d)

Q18. Simplify: $\frac{3}{5} \div \frac{9}{10}$.

a)

b)

c)

d)

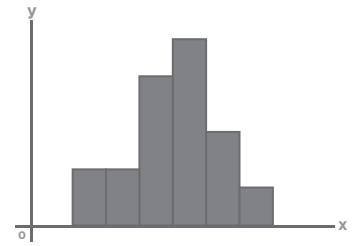
Q19. Which interval has maximum frequency?

a)

b)

c)

d)



Q20. Find HCF of 84 and 120.

a)

b)

c)

d)



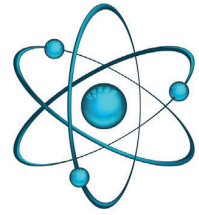
SCIENCE SECTION

Q21. State law of conservation of energy.

- a) b)
- c) d)

Q22. Which particles are inside nucleus?

- a) b)
- c) d)



Q23. Why does ice melt faster in water than in air?

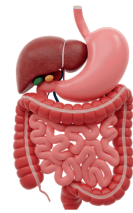
- a) b)
- c) d)

Q24. Define photosynthesis equation.

- a) b)
- c) d)

Q25. Which organ absorbs nutrients?

- a) b)
- c) d)



Q26. Which scientist proposed three laws of motion?

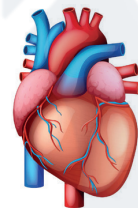
- a) b)
- c) d)

Q27. What is role of ozone layer?

- a) b)
- c) d)

Q28. Which chamber pumps blood to lungs?

- a) b)
- c) d)



Q29. What causes day and night?

- a) b)
- c) d)

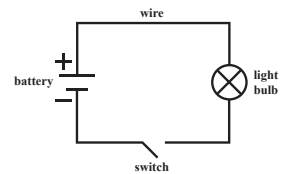
Q30. Which type of energy is stored in food?

- a) b)
- c) d)

Q31. What happens if bulb and switch are in series and switch is open?

- a)
- c)

- b)
- d)



Q32. Define acid with example.

- a)
- c)

- b)
- d)

Q33. Which planet is called Earth's twin?

- a)
- c)

- b)
- d)

Q34. Name blood component that carries oxygen.

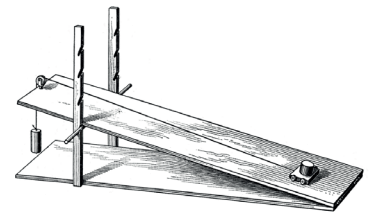
- a)
- c)

- b)
- d)

Q35. Which type of machine is an inclined plane?

- a)
- c)

- b)
- d)



Q36. Define kinetic energy.

- a)
- c)

- b)
- d)

Q37. Why does iron rust?

- a)
- c)

- b)
- d)

Q38. Which planet has shortest day?

- a)
- c)

- b)
- d)



Q39. Give one example of renewable energy.

- a)
- c)

- b)
- d)

Q40. Which process changes water into vapor?

- a)
- c)

- b)
- d)

ENGLISH SECTION

Q41. Read passage 'The Merchant and the Gold'. What was the moral of story?

- a) b)
- c) d)

Q42. Which is correct past tense of 'begin'?

- a) b)
- c) d)

Q43. Fill blank: She has lived here ____ 2015. (for/since)

- a) b)
- c) d)

Q44. Odd one out:

- a) Quickly b) Happiness
- c) Slowly d) Loudly

Q45. Which is synonym of 'angry'?

- a) b)
- c) d)

Q46. Which is antonym of 'success'?

- a) b)
- c) d)

Q47. Fill blank: Neither Ali nor Sara ____ going to market. (is/are)

- a) b)
- c) d)

Q48. Which word is adverb:

- a) Run b) Quickly
- c) Chair d) Book

Q49. Read passage 'The Lost Necklace'. Why was girl crying?

- a) b)
- c) d)

Q50. Correct spelling:

- a) Accomodate b) Accommodate
- c) Acommodate

Q51. Which pronoun replaces 'Sara and I'?

- a) b)
- c) d)

Q52. Fill blank: If it ____ tomorrow, we will stay home. (rain/rains)

- a) b)
- c) d)

Q53. Identify figure of speech: 'Time is a thief'.

- a) b)
- c) d)

Q54. Choose best title for passage about kindness.

- a) b)
- c) d)

Q55. Which is conjunction:

- a) But b) Chair
- c) Sky d) Blue

Q56. Which tense: They will have completed project by next week.

- a) b)
- c) d)

Q57. Fill blank: The boys ____ finished homework already. (have/has)

- a) b)
- c) d)

Q58. Which is antonym of 'difficult'?

- a) b)
- c) d)

Q59. Which punctuation ends imperative sentence?

- a) b)
- c) d)

Q60. Odd one out:

- a) Teacher b) Engineer
- c) Quickly d) Doctor

GENERAL KNOWLEDGE SECTION

Q61. Which is longest river in world?

- a) b)
 c) d)



Q62. Who discovered penicillin?

- a)  b) 

c)  d) 

Q63. Which battle ended Mughal rule in India?

- a) b)
 c) d)

Q64. In which city is Taj Mahal located?

- a) b)
 c) d)



Q65. Capital of Italy?

- a) b)
 c) d)

Q66. Who invented airplane?

- a)  b) 

Q67. Where is UN headquarters?

- a) b)
c) d)



Q68. Which year did Pakistan get independence?

- a) ☐ b) ☐
 c) ☐ d) ☐

Q69. Which dynasty built Great Wall?

- a) b)
c) d)



Q70. Who was first Caliph of Islam?

- a) b)
 c) d)

Q71. Which is largest ocean?

- a)
- c)

- b)
- d)



Q72. Who painted Mona Lisa?

- a)
- c)

- b)
- d)

Q73. Which is smallest country in world?

- a)
- c)

- b)
- d)

Q74. Everest is in which countries?

- a)
- c)

- b)
- d)



Q75. Who discovered gravity?

- a)
- c)

- b)
- d)

Q76. Which is currency of China?

- a)
- c)

- b)
- d)

Q77. Which desert covers most of North Africa?

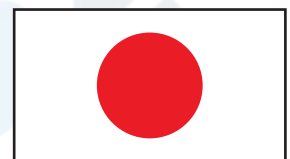
- a)
- c)

- b)
- d)

Q78. This flag belongs to which country?

- a)
- c)

- b)
- d)



Q79. Who was first Prime Minister of Pakistan?

- a)
- c)

- b)
- d)

Q80. Which gas do humans exhale during respiration?

- a)
- c)

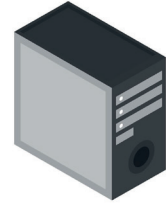
- b)
- d)

INFORMATION TECHNOLOGY SECTION

Q81. Which is main processing unit?

- a)
- c)

- b)
- d)



Q82. Expand IP address.

- a)
- c)

- b)
- d)

Q83. What device connects computer to internet?

- a)
- c)

- b)
- d)



Q84. Difference between hardware and software?

- a)
- c)

- b)
- d)

Q85. Which key deletes text right of cursor?

- a)
- c)

- b)
- d)



Q86. Which storage is temporary: RAM or ROM?

- a)
- c)

- b)
- d)

Q87. Which software is used for presentations?

- a)
- c)

- b)
- d)

Q88. A smartphone is example of what device?

- a)
- c)

- b)
- d)



Q89. Expand HTML.

- a)
- c)

- b)
- d)

Q90. Which device is output device: printer or mouse?

- a)
- c)

- b)
- d)

Q91. What is firewall in networking?

- a)
- c)

- b)
- d)

Q92. This symbol represents what?

- a)
- c)

- b)
- d)



Q93. Shortcut key to copy text in Windows?

- a)
- c)

- b)
- d)

Q94. What is phishing?

- a)
- c)

- b)
- d)

Q95. What does USB stand for?

- a)
- c)

- b)
- d)



Q96. Which part of computer stores BIOS?

- a)
- c)

- b)
- d)

Q97. Example of system software?

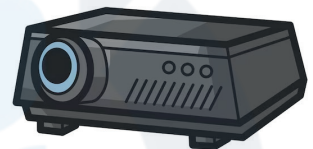
- a)
- c)

- b)
- d)

Q98. Which device shows visuals on screen?

- a)
- c)

- b)
- d)



Q99. Expand Wi-Fi.

- a)
- c)

- b)
- d)

Q100. Which company developed Windows OS?

- a)
- c)

- b)
- d)

ANSWER KEY

MATHEMATICS SECTION

Q1: $8x + 3$

Reasoning: Combine like terms: $(5x+3x) - 4 + 7 - 2x = 8x + 3$.

Q2: 48 cm^2

Reasoning: Area = $\frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times 12 \times 8$.

Q3: $y = 21/3 = 7$

Reasoning: $2(3y - 5) = 16 \text{ ® } 6y - 10 = 16 \text{ ® } 6y = 26 \text{ ® } y = 26/6 \approx 4.33$.

Q4: 1200

Reasoning: 20% of 1500 = 300. $1500 - 300 = 1200$.

Q5: 60 km/h

Reasoning: Speed = distance/time = $120/2$.

Q6: 154 cm^2

Reasoning: Area = $\pi r^2 = 22/7 \times 7 \times 7$.

Q7: 0.5

Reasoning: Probability of head = $1/2$.

Q8: 24

Reasoning: Girls = 40 ® ratio 3:5 ® Boys = $(3/5) \times 40 = 24$.

Q9: $a^2 - b^2$

Reasoning: Expansion formula: $(a+b)(a-b) = a^2 - b^2$.

Q10: Subject with highest bar

Reasoning: Check tallest bar in graph.

Q11: 1000

Reasoning: $SI = \text{PRT}/100 = 5000 \times 10 \times 2/100$.

Q12: $3/8$

Reasoning: $0.375 = 375/1000 = 3/8$.

Q13: 90

Reasoning: 4 pencils = 36 ® 1 pencil = 9 ® 10 pencils = 90.

Q14: 8

Reasoning: Cube has 8 vertices.

Q15: $x=5$

Reasoning: $5x - 7 = 18 \text{ ® } 5x = 25 \text{ ® } x=5$.

Q16: 35

Reasoning: Mean = sum/n = $175/5$.

Q17: 12

Reasoning: Perimeter=48 ® side=48/4=12.

Q18: $2/3$

Reasoning: $3/5 \div 9/10 = 3/5 \times 10/9 = 30/45 = 2/3$.

Q19: Interval with tallest bar

Reasoning: Look at histogram.

Q20: 12

Reasoning: HCF of 84 and 120 = 12.



SCIENCE SECTION

Q21: Energy conserved

Reasoning: Energy cannot be created or destroyed.

Q22: Protons and Neutrons

Reasoning: Located in nucleus.

Q23: Heat transfer

Reasoning: Water conducts heat better than air.

Q24: $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$ Glucose + O_2

Reasoning: Equation for photosynthesis.

Q25: Small intestine

Reasoning: Absorbs nutrients.

Q26: Isaac Newton

Reasoning: Proposed 3 laws of motion.

Q27: Blocks UV

Reasoning: Protects Earth from ultraviolet rays.

Q28: Right ventricle

Reasoning: Pumps blood to lungs.

Q29: Earth's rotation

Reasoning: Rotation causes day/night.

Q30: Chemical energy

Reasoning: Food stores chemical energy.

Q31: No current

Reasoning: Switch open & circuit broken.

Q32: Substance producing H^+ ions

Reasoning: Acid releases hydrogen ions.

Q33: Venus

Reasoning: Venus resembles Earth.

Q34: Red blood cells

Reasoning: RBCs carry oxygen.

Q35: Simple machine

Reasoning: Inclined plane is simple machine.

Q36: Energy of motion

Reasoning: Kinetic = energy due to motion.

Q37: Reaction with oxygen

Reasoning: Iron reacts with O_2 + moisture.

Q38: Jupiter

Reasoning: Shortest day planet.

Q39: Solar/Wind

Reasoning: Examples of renewable energy.

Q40: Evaporation

Reasoning: Turns water into vapor.



ENGLISH SECTION

Q41: Greed punished

Reasoning: Moral: Greed leads to loss.

Q42: Began

Reasoning: Past tense of begin.

Q43: since

Reasoning: Has lived here since 2015.

Q44: Happiness

Reasoning: Others are adverbs.

Q45: Furious

Reasoning: Synonym for angry.

Q46: Failure

Reasoning: Antonym of success.

Q47: is

Reasoning: Neither...nor takes singular.

Q48: Quickly

Reasoning: Adverb is Quickly.

Q49: Lost necklace

Reasoning: Girl crying because necklace lost.

Q50: b

Reasoning: Correct spelling: Accommodate.

Q51: We

Reasoning: Sara and I = We.

Q52: rains

Reasoning: If it rains tomorrow.

Q53: Metaphor

Reasoning: Time is a thief = metaphor.

Q54: Kindness matters

Reasoning: Best title.

Q55: But

Reasoning: Conjunction = But.

Q56: Future perfect

Reasoning: Will have completed = future perfect.

Q57: have

Reasoning: The boys have finished.

Q58: Easy

Reasoning: Antonym of difficult = easy.

Q59: Period

Reasoning: Imperative ends with period.

Q60: Quickly

Reasoning: Others are professions.



GENERAL KNOWLEDGE SECTION

Q61: Nile

Reasoning: Longest river is Nile.

Q62: Alexander Fleming

Reasoning: Discovered penicillin.

Q63: Battle of Plassey

Reasoning: Ended Mughal rule.

Q64: Agra

Reasoning: Taj Mahal in Agra.

Q65: Rome

Reasoning: Capital of Italy is Rome.

Q66: Wright brothers

Reasoning: Invented airplane.

Q67: New York

Reasoning: UN HQ in New York.

Q68: 1947

Reasoning: Independence in 1947.

Q69: Ming

Reasoning: Great Wall expanded by Ming dynasty.

Q70: Abu Bakr

Reasoning: First Caliph of Islam.

Q71: Pacific

Reasoning: Pacific is largest ocean.

Q72: Leonardo da Vinci

Reasoning: Painted Mona Lisa.

Q73: Vatican City

Reasoning: Smallest country in world.

Q74: Nepal & China

Reasoning: Everest in Nepal and China.

Q75: Newton

Reasoning: Gravity discovered by Newton.

Q76: Yuan

Reasoning: Currency of China is Yuan.

Q77: Sahara

Reasoning: Covers North Africa.

Q78: Japan

Reasoning: Flag of Japan shown.

Q79: Liaquat Ali Khan

Reasoning: First PM of Pakistan.

Q80: CO₂

Reasoning: Exhaled gas is carbon dioxide.

Information Technology Section

Q81: CPU

Reasoning: CPU main processing unit.

Q82: Internet Protocol

Reasoning: IP = Internet Protocol.

Q83: Router

Reasoning: Router connects to internet.

Q84: Hardware tangible, software programs

Reasoning: Hardware is physical, software is programs.



Q85: Delete

Reasoning: Delete key erases right of cursor.

Q86: RAM

Reasoning: Temporary memory is RAM.

Q87: PowerPoint

Reasoning: MS PowerPoint for presentations.

Q88: Mobile device

Reasoning: Smartphone is mobile device.

Q89: HyperText Markup Language

Reasoning: HTML = HyperText Markup Language.

Q90: Printer

Reasoning: Printer is output device.

Q91: Security system

Reasoning: Firewall protects network.

Q92: Email

Reasoning: Icon represents email.

Q93: Ctrl+C

Reasoning: Copy shortcut is Ctrl+C.

Q94: Online scam

Reasoning: Phishing is online fraud.

Q95: Universal Serial Bus

Reasoning: USB = Universal Serial Bus.

Q96: ROM

Reasoning: BIOS stored in ROM.

Q97: Operating system

Reasoning: System software like Windows.

Q98: Projector

Reasoning: Shows visuals on screen.

Q99: Wireless Fidelity

Reasoning: Wi-Fi = Wireless Fidelity.

Q100: Microsoft

Reasoning: Windows OS by Microsoft.

