



FCO ASSESSMENT FOUNDATION

Section 8 Non-Profit Organisation • FCO 2026-27 Scholarship Assessment

SAMPLE QUESTION PAPER — CLASS 10

Advanced Level • Assessment Window: January 2027

Total Questions	100 (Multiple Choice)
Maximum Marks	100
Duration	90 minutes
Marking Scheme	1 mark per correct answer • No negative marking
Medium	English
Answer Key	Provided at the end of this paper

Paper Structure

Section	Area Assessed	Questions	Marks
Section A	Subject Knowledge	1 – 20	20
Section B	Reasoning & Mathematics	21 – 40	20
Section C	General Knowledge & Current Awareness	41 – 60	20
Section D	Future Skills, Technology & AI Awareness	61 – 100	40

General Instructions

1. All questions are compulsory. Each question carries one mark.
2. Each question has four options; exactly one option is correct.
3. Darken only one circle per question on the OMR sheet. Multiple marks will be treated as incorrect.
4. Use a blue or black ballpoint pen. Rough work may be done on the space provided in the booklet.
5. Calculators, mobile phones and smart devices are not permitted in the examination hall.
6. This is a sample paper for practice. The actual paper will follow the same structure and difficulty.

FCO is a year-long student development journey. Every registered learner receives a detailed skill report, personalised guidance and continuous support through the assessment year — not just a score.

Section A — Subject Knowledge

Questions 1 to 20 • 20 marks

1. Which gas is evolved when dilute HCl reacts with zinc metal?

- (A) Nitrogen (B) Oxygen
(C) Carbon dioxide (D) Hydrogen

2. What type of reaction is photosynthesis in terms of energy?

- (A) Exothermic (B) Redox only
(C) Endothermic (D) Displacement

3. Which mirror is used as a side mirror in vehicles?

- (A) Plane mirror (B) Cylindrical mirror
(C) Concave mirror (D) Convex mirror

4. The SI unit of electric resistance is

- (A) Ohm (B) Watt
(C) Ampere (D) Volt

5. Which part of the human body is the site of complete digestion?

- (A) Small intestine (B) Stomach
(C) Esophagus (D) Large intestine

6. In a concave lens, the image formed is always

- (A) Real and inverted (B) Real and erect
(C) Virtual and erect (D) Virtual and inverted

7. Which of the following is a strong electrolyte?

- (A) Sodium chloride solution (B) Alcohol
(C) Glucose solution (D) Sugar solution

8. The functional unit of kidney is called

- (A) Nucleolus (B) Nucleus
(C) Neuron (D) Nephron

9. Identify the correct synonym of the word Abundant

- (A) Empty (B) Plentiful
(C) Rare (D) Scarce

10. Choose the correctly punctuated sentence

- (A) Where are you going? (B) Where, are you going?
(C) where are you going? (D) Where are you going.

11. The process of loss of water in the form of vapour from leaves is called

- (A) Transpiration (B) Excretion
(C) Photosynthesis (D) Respiration

12. Which of the following is a renewable source of energy

- (A) Solar energy (B) Natural gas
(C) Petroleum (D) Coal

13. Federalism in India is an example of

- (A) Military rule (B) Monarchy
(C) Unitary government (D) Division of powers between centre and states

14. Which article of the Indian Constitution abolished untouchability

- (A) Article 14 (B) Article 15
(C) Article 21 (D) Article 17

15. The main crop grown in the Rabi season is

- (A) Sugarcane (B) Rice
(C) Jute (D) Wheat

16. Who was the first Governor-General of independent India

- (A) Sardar Patel (B) C Rajagopalachari
(C) Jawaharlal Nehru (D) Lord Mountbatten

17. Which of these is an example of a non-verbal communication

- (A) Report (B) Handshake
(C) Email (D) Letter

18. The chemical formula of washing soda is

- (A) NaHCO_3 (B) NaOH
(C) $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ (D) CaOCl_2

19. Choose the correct passive voice of She writes a letter

- (A) A letter was written (B) Letter is write by her by her
(C) A letter is written by (D) A letter writes her her

20. Which organ in plants is primarily responsible for absorption of water

- (A) Stem (B) Flower
(C) Root (D) Leaf

Section B — Reasoning & Mathematics

Questions 21 to 40 • 20 marks

21. If the sum of two numbers is 25 and their difference is 5 find the numbers

- (A) 20 and 5 (B) 16 and 9
(C) 15 and 10 (D) 18 and 7

22. The roots of the quadratic equation $x^2 - 5x + 6 = 0$ are

- (A) -2 and -3 (B) 2 and -3
(C) 1 and 6 (D) 2 and 3

23. The value of $\sin 30^\circ$ is

- (A) 0.5 (B) 0.866
(C) 1 (D) 0

24. In an AP if first term is 3 and common difference is 4 the 5th term is

- (A) 17 (B) 19
(C) 21 (D) 15

25. A dice is thrown once, the probability of getting an even number is

- (A) $\frac{1}{2}$ (B) $\frac{1}{6}$
(C) $\frac{1}{3}$ (D) $\frac{2}{3}$

26. If two triangles are similar their corresponding sides are

- (A) Proportional (B) Equal
(C) Parallel (D) Perpendicular

27. The distance between points (0,0) and (3,4) is

- (A) 4 (B) 5
(C) 7 (D) 3

28. The value of $\cos 0^\circ$ is

- (A) Undefined (B) 1
(C) 0.5 (D) 0

29. What is the next number in the series 2, 6, 12, 20, 30, ____

- (A) 36 (B) 38
(C) 40 (D) 42

30. If a train travels 60 km in 45 minutes, its speed in km/h is

- (A) 60 (B) 90
(C) 75 (D) 80

31. The HCF of 12 and 18 is

- (A) 9 (B) 3
(C) 6 (D) 12

32. Solve for x: $2x + 3 = 11$

- (A) 3 (B) 6
(C) 4 (D) 5

33. The area of a circle with radius 7 cm is (use $\pi = \frac{22}{7}$)

- (A) 132 sq cm (B) 166 sq cm
(C) 154 sq cm (D) 144 sq cm

34. A man is facing north and turns 90 degrees clockwise, he now faces

- (A) West (B) East
(C) South (D) North

35. The mean of 2, 4, 6, 8, 10 is

- (A) 7 (B) 5
(C) 8 (D) 6

36. If $x^2 = 49$, the value of x is

- (A) 7 or -7 (B) Only -7
(C) 49 (D) Only 7

37. The total surface area of a cube with side 4 cm is

- (A) 16 sq cm (B) 64 sq cm
(C) 48 sq cm (D) 96 sq cm

38. A sum of money doubles itself in 8 years at simple interest, the rate is

- (A) 8 percent (B) 10 percent
(C) 15 percent (D) 12.5 percent

39. Complete the analogy Pen is to Write as Knife is to ____

- (A) Kitchen (B) Cut
(C) Blade (D) Sharp

40. Who is the current Prime Minister of India as of 2024

- (A) Rahul Gandhi (B) Narendra Modi
(C) Manmohan Singh (D) Amit Shah

Section C — General Knowledge & Current Awareness

Questions 41 to 60 • 20 marks

41. Which Indian state is known as the Spice Garden of India

- (A) Gujarat (B) Kerala
(C) Punjab (D) Assam

42. The headquarters of the United Nations is located in

- (A) London (B) Geneva
(C) New York (D) Paris

43. India's national animal is the

- (A) Elephant (B) Tiger
(C) Lion (D) Leopard

44. Which Indian mission successfully landed near the lunar south pole in 2023

- (A) Chandrayaan-2 (B) Chandrayaan-3
(C) Mangalyaan (D) Aditya-L1

45. The currency of Japan is called

- (A) Ringgit (B) Won
(C) Yen (D) Yuan

46. Which is the longest river in India

- (A) Yamuna (B) Brahmaputra
(C) Godavari (D) Ganga

47. The Nobel Prize is awarded annually in the city of

- (A) Oslo and Stockholm (B) Paris
(C) London (D) Geneva

48. Which festival is known as the Festival of Colours in India

- (A) Eid (B) Holi
(C) Pongal (D) Diwali

49. The Sun Temple at Konark is located in which state

- (A) Karnataka (B) Odisha
(C) Tamil Nadu (D) Bihar

50. Which is the smallest continent by area

- (A) Asia (B) Australia
(C) Europe (D) Africa

51. Who wrote the Indian National Anthem

- (A) Bankim Chandra Chatterjee (B) Subhas Chandra Bose
(C) Rabindranath Tagore (D) Sarojini Naidu

52. Which country hosted the 2023 Cricket World Cup

- (A) England (B) Australia
(C) India (D) South Africa

53. The Reserve Bank of India is headquartered in

- (A) Chennai (B) Mumbai
(C) New Delhi (D) Kolkata

54. Which gas is most responsible for global warming

- (A) Helium (B) Oxygen
(C) Nitrogen (D) Carbon dioxide

55. ISRO stands for

- (A) International Space Research Office (B) Indian Space Research Organisation
(C) Indian Satellite Research Organisation (D) Indian Space Radar Organisation

56. Which Indian state has the largest coastline

- (A) Gujarat (B) Tamil Nadu
(C) Maharashtra (D) Andhra Pradesh

57. The G20 summit in 2023 was hosted by

- (A) Japan (B) Indonesia
(C) India (D) Brazil

58. Who is known as the Missile Man of India

- (A) A P J Abdul Kalam (B) Vikram Sarabhai
(C) C V Raman (D) Homi Bhabha

59. The World Health Organization headquarters is in

- (A) Paris (B) Geneva
(C) Vienna (D) Rome

60. Which is the highest civilian award in India

- (A) Bharat Ratna (B) Padma Shri
(C) Padma Vibhushan (D) Ashoka Chakra

Section D — Future Skills, Technology & AI Awareness

Questions 61 to 100 • 40 marks

61. Artificial Intelligence is best defined as

- (A) A programming language (B) A robot that looks like a human
(C) A type of computer hardware (D) Simulation of human intelligence by machines

62. In machine learning, supervised learning requires

- (A) Only unlabeled data (B) Labeled input-output data
(C) Only images (D) No data at all

63. Which of these is an example of unsupervised learning

- (A) Predicting exam scores (B) Customer segmentation without labels
(C) Spam email classification (D) Predicting house prices

64. LLM stands for

- (A) Large Logic Machine (B) Linear Logic Model
(C) Large Language Model (D) Long Learning Machine

65. Which metric is commonly used to evaluate classification models

- (A) Mean Squared Error (B) Standard Deviation
(C) Variance (D) Accuracy

66. A confusion matrix is used to evaluate

- (A) Regression models (B) Classification models
(C) Data cleaning (D) Clustering only

67. Overfitting in a machine learning model means

- (A) The model performs well on training data but poorly on new data
(B) The model has too little data
(C) The model has no data
(D) The model performs well on both training and new data

68. Which of the following is a responsible AI practice

- (A) Ignoring data bias (B) Ensuring transparency and fairness
(C) Avoiding user consent (D) Hiding model limitations

69. Which term refers to unfair outcomes in AI due to skewed training data

- (A) Underfitting (B) Regression
(C) Overfitting (D) Bias

70. What does GPT in ChatGPT stand for

- (A) Generative Pre-trained Transformer (B) Graphic Processing Terminal
(C) Global Processing Technique (D) General Purpose Tool

71. Which of the following is a common cybersecurity threat

- (A) Phishing (B) Firewall
(C) Encryption (D) Antivirus

72. A strong password typically should

- (A) Be your name (B) Be the same for all accounts
(C) Be short and simple (D) Include a mix of letters, numbers and symbols

73. Two-factor authentication adds security by

- (A) Using two different browsers (B) Using two email accounts
(C) Doubling the password length (D) Requiring a second verification step beyond password

74. Which of the following best describes phishing

- (A) A fraudulent attempt to obtain sensitive information
(B) A method to speed up internet
(C) A type of firewall (D) A data backup method

75. Encryption is used to

- (A) Compress files (B) Delete data permanently
(C) Speed up the internet (D) Convert data into unreadable form for unauthorized users

76. Which of the following is an example of an entrepreneurial mindset

- | | |
|---|-------------------------------|
| (A) Identifying problems and creating solutions | (B) Waiting for opportunities |
| (C) Copying competitors exactly | (D) Avoiding risks always |

77. A startup's Minimum Viable Product refers to

- | | |
|---|--------------------------------|
| (A) The final polished product | (B) A marketing brochure |
| (C) A basic version to test market response | (D) A product with no features |

78. Which of these is a key trait of a successful entrepreneur

- | | |
|-----------------------|---------------------------------|
| (A) Risk aversion | (B) Rigid thinking |
| (C) Avoiding feedback | (D) Innovation and adaptability |

79. Cloud computing primarily allows users to

- | | |
|------------------------------|---|
| (A) Only use local storage | (B) Store and access data over the internet |
| (C) Avoid using the internet | (D) Delete files automatically |

80. The Internet of Things refers to

- | | |
|--|---|
| (A) Only smartphones connected to WiFi | (B) Everyday devices connected and exchanging data online |
| (C) A single computer network | (D) A social media platform |

81. Which of the following is a benefit of automation in industries

- | | |
|---|----------------------------|
| (A) Higher costs always | (B) Increased manual labor |
| (C) Increased efficiency and reduced errors | (D) Slower production |

82. Blockchain technology is primarily known for use in

- | | |
|---------------------|---|
| (A) Music streaming | (B) Secure and transparent record keeping |
| (C) Cooking recipes | (D) Weather forecasting |

83. Which skill is considered essential for future employability alongside technical skills

- | | |
|---|----------------------------|
| (A) Critical thinking and problem solving | (B) Rote memorization |
| (C) Avoiding teamwork | (D) Ignoring communication |

84. A chatbot commonly uses which AI technique to understand text

- | | |
|---------------------------------|---------------------|
| (A) Natural Language Processing | (B) File formatting |
| (C) Image compression | (D) Data encryption |

85. Which of the following is an example of AI in healthcare

- | | |
|---|-------------------------------|
| (A) Traditional prescriptions only | (B) Physical examination only |
| (C) Disease diagnosis using image recognition | (D) Manual paper filing |

86. Data privacy laws are designed to

- | | |
|--|----------------------------|
| (A) Allow unrestricted data sharing | (B) Delete all user data |
| (C) Protect personal information from misuse | (D) Prevent internet usage |

87. Which of these describes a neural network in AI

- | | |
|--|----------------------------------|
| (A) A social network platform | (B) A type of computer virus |
| (C) A computing system inspired by the human brain | (D) A biological brain structure |

88. Training data in machine learning refers to

- | | |
|---|----------------------------------|
| (A) Data used to teach the model patterns | (B) Data used only for marketing |
| (C) Data used to test the final model | (D) Random unused data |

89. Which of the following is an example of a soft skill important for the future workforce

- | | |
|-------------------------------------|-------------------------|
| (A) Communication and collaboration | (B) Memorizing formulas |
| (C) Hardware assembly | (D) Coding syntax |

90. A digital footprint refers to

- | | |
|----------------------------|---|
| (A) A hardware component | (B) The trail of data left by online activity |
| (C) A type of software bug | (D) Physical footprints in snow |

91. Which of these is a green technology practice

- | | |
|------------------------------------|-------------------------------|
| (A) Using renewable energy sources | (B) Ignoring e-waste disposal |
| (C) Wasting electricity | (D) Excessive paper printing |

92. What is the main purpose of A/B testing in product development

- | | |
|---|----------------------------|
| (A) To test two versions to see which performs better | (B) To delete old versions |
| (C) To increase server load | (D) To reduce team size |

93. Which of the following best defines automation bias

- | | |
|--|-------------------------------------|
| (A) Always questioning automated systems | (B) Avoiding technology completely |
| (C) Trusting automated systems without questioning even when wrong | (D) Manual verification of all data |

94. Which of these is a key component of a good AI model evaluation

- | | |
|------------------------|---|
| (A) Ignoring test data | (B) Precision, recall and validation on unseen data |
| (C) Using no metrics | (D) Only training accuracy |

95. E-waste management is important mainly because

- | | |
|--|------------------------------------|
| (A) Improper disposal harms environment and health | (B) Recycling is illegal |
| (C) Electronics never contain harmful materials | (D) It has no environmental impact |

96. Which of the following best describes deepfake technology

- | | |
|---|----------------------------------|
| (A) A cloud storage service | (B) A method to encrypt files |
| (C) AI-generated fake media that appears real | (D) A type of antivirus software |

97. A key ethical concern with facial recognition technology is

- | | |
|---|-------------------------|
| (A) It is free for all uses | (B) It requires no data |
| (C) Privacy invasion and potential misuse | (D) It never works |

98. Which career skill combines creativity with data analysis in the digital age

- | | |
|-----------------------|-----------------------|
| (A) Typing speed only | (B) Paper printing |
| (C) Manual filing | (D) Data storytelling |

99. Which of the following is a benefit of remote collaboration tools

- | | |
|---|----------------------------------|
| (A) Enabling teamwork across locations in real time | (B) Elimination of internet need |
| (C) Reduced communication | (D) Preventing file sharing |

100. A digital entrepreneur primarily leverages which of the following to grow a business

- | | |
|--------------------------------|--|
| (A) Only physical stores | (B) Paper advertisements only |
| (C) Avoiding customer feedback | (D) Online platforms and digital marketing |

Answer Key — Class 10 Sample Question Paper

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	D	21	C	41	B	61	D	81	C
2	C	22	D	42	C	62	B	82	B
3	D	23	A	43	B	63	B	83	A
4	A	24	B	44	B	64	C	84	A
5	A	25	A	45	C	65	D	85	C
6	C	26	A	46	D	66	B	86	C
7	A	27	B	47	A	67	A	87	C
8	D	28	B	48	B	68	B	88	A
9	B	29	D	49	B	69	D	89	A
10	A	30	D	50	B	70	A	90	B
11	A	31	C	51	C	71	A	91	A
12	A	32	D	52	C	72	D	92	A
13	D	33	C	53	B	73	D	93	C
14	D	34	B	54	D	74	A	94	B
15	D	35	D	55	B	75	D	95	A
16	D	36	A	56	A	76	A	96	C
17	B	37	D	57	C	77	C	97	C
18	C	38	D	58	A	78	D	98	D
19	C	39	B	59	B	79	B	99	A
20	C	40	B	60	A	80	B	100	D

Section-wise Distribution of Answers

Section	Questions	A	B	C	D
Section A — Subject Knowledge	1 – 20	6	2	5	7
Section B — Reasoning & Mathematics	21 – 40	4	6	3	7
Section C — General Knowledge & Current Awareness	41 – 60	4	9	5	2
Section D — Future Skills, Technology & AI Awareness	61 – 100	13	9	9	9

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