



FCO ASSESSMENT FOUNDATION

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

SAMPLE QUESTION PAPER — CLASS 11

Senior 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 of the following is a scalar quantity?

- (A) Acceleration (B) Velocity
(C) Force (D) Work

2. The SI unit of electric current is

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

3. What is the value of acceleration due to gravity on Earth (approx)?

- (A) 8.9 m/s² (B) 9.8 m/s²
(C) 10.8 m/s² (D) 11.2 m/s²

4. Which law states that pressure and volume of a gas are inversely proportional at constant temperature?

- (A) Boyle Law (B) Gay-Lussac Law
(C) Charles Law (D) Avogadro Law

5. The pH of a neutral solution at 25 degrees Celsius is

- (A) 0 (B) 7
(C) 14 (D) 1

6. Which of the following is an example of an ionic bond?

- (A) H₂ (B) NaCl
(C) CH₄ (D) O₂

7. The powerhouse of the cell is

- (A) Ribosome (B) Golgi body
(C) Nucleus (D) Mitochondria

8. Which kingdom includes organisms that are prokaryotic?

- (A) Fungi (B) Plantae
(C) Monera (D) Animalia

9. The process by which plants lose water in vapor form is called

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

10. In a right triangle, the ratio of the opposite side to the hypotenuse is called

- (A) Secant (B) Cosine
(C) Sine (D) Tangent

11. The value of sin 30 degrees is

- (A) 0.5 (B) 1
(C) 1.5 (D) 0

12. Which of the following is a complex number?

- (A) -2 (B) Square root of 4
(C) 3 plus 4i (D) 5

13. The derivative of x squared with respect to x is

- (A) x (B) x squared
(C) 2 (D) 2x

14. In economics, the study of individual units like households and firms is called

- (A) Development economics (B) Macroeconomics
(C) Public economics (D) Microeconomics

15. Which of the following is a fixed cost for a firm?

- (A) Wages of daily workers (B) Raw material cost
(C) Fuel cost (D) Rent of factory

16. Identify the correctly punctuated sentence.

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

17. Choose the correct synonym for Benevolent.

- (A) Angry (B) Kind
(C) Selfish (D) Cruel

18. Which figure of speech compares two things using like or as?

- (A) Simile (B) Personification
(C) Metaphor (D) Hyperbole

19. The chemical formula of methane is

- (A) C₂H₆ (B) CO₂
(C) CH₃OH (D) CH₄

20. Which organelle is responsible for protein synthesis in a cell?

- (A) Vacuole (B) Peroxisome
(C) Lysosome (D) Ribosome

Section B — Reasoning & Mathematics

Questions 21 to 40 • 20 marks

21. If all roses are flowers and some flowers fade quickly, which conclusion is valid?

- (A) All flowers are roses (B) No roses fade quickly
(C) All roses fade quickly (D) Some flowers are roses

22. Find the next number in the series 2, 6, 12, 20, 30, ?

- (A) 36 (B) 40
(C) 44 (D) 42

23. If A is the sister of B and B is the son of C, then A is the daughter of

- (A) A's mother (B) C
(C) Cannot be determined (D) B

24. A train travels 60 km in 45 minutes. What is its speed in km per hour?

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

25. Which number is the odd one out: 3, 5, 7, 9, 11?

- (A) 9 (B) 11
(C) 3 (D) 5

26. If 20 percent of a number is 50, what is the number?

- (A) 250 (B) 200
(C) 100 (D) 150

27. Solve for x: 2x plus 5 equals 15

- (A) 4 (B) 6
(C) 5 (D) 7

28. What comes next in the pattern A, C, E, G, ?

- (A) J (B) H
(C) I (D) K

29. Two dice are thrown, what is the probability of getting a sum of 7?

- (A) $\frac{1}{9}$ (B) $\frac{1}{6}$
(C) $\frac{1}{12}$ (D) $\frac{1}{36}$

30. If today is Monday, what day will it be after 100 days?

- (A) Tuesday (B) Wednesday
(C) Monday (D) Thursday

31. A boat travels upstream at 8 km/h and downstream at 12 km/h. What is the speed of the stream?

- (A) 2 km/h (B) 4 km/h
(C) 3 km/h (D) 1 km/h

32. Statement: All pens are books. All books are papers. Conclusion: All pens are papers.

- (A) False (B) Partially true
(C) True (D) Cannot be determined

33. The average of 10, 20, 30, 40, and 50 is

- (A) 35 (B) 25
(C) 30 (D) 40

34. Which term does not belong: Square, Circle, Triangle, Sphere?

- (A) Triangle (B) Sphere
(C) Square (D) Circle

35. A clock shows 3:15. What is the angle between the hour and minute hands?

- (A) 30 degrees (B) 0 degrees
(C) 7.5 degrees (D) 15 degrees

36. If x is to y as 3 is to 4, and x equals 9, find y

- (A) 11 (B) 10
(C) 12 (D) 13

37. Which of the following numbers is a prime number?

- (A) 33 (B) 21
(C) 29 (D) 39

38. Simplify: (2 to the power 3) multiplied by (2 to the power 2)

- (A) 64 (B) 32
(C) 8 (D) 16

39. A can complete a work in 10 days and B in 15 days. Working together, how many days will they take?

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

40. What is the missing number in the series 5, 11, 23, 47, ?

- (A) 96 (B) 95
(C) 94 (D) 93

Section C — General Knowledge & Current Awareness

Questions 41 to 60 • 20 marks

41. Who is the current Prime Minister of India as of 2024?

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

42. The headquarters of the United Nations is located in

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

43. Which Indian city is known as the Silicon Valley of India?

- (A) Bengaluru (B) Hyderabad
(C) Pune (D) Chennai

44. India's national currency is called

- (A) Dinar (B) Taka
(C) Rupee (D) Rupiah

45. Which of the following is the largest state in India by area?

- (A) Rajasthan (B) Madhya Pradesh
(C) Uttar Pradesh (D) Maharashtra

46. The Reserve Bank of India functions as India's

- (A) Investment bank (B) Central bank
(C) Cooperative bank (D) Commercial bank

47. Which Indian scheme aims to provide affordable housing for all?

- (A) Pradhan Mantri Awas Yojana
(B) Ujjwala Yojana
(C) Jan Dhan Yojana (D) Ayushman Bharat

48. Who was awarded the Nobel Peace Prize in 2023?

- (A) Malala Yousafzai (B) Denis Mukwege
(C) Narges Mohammadi (D) Abiy Ahmed

49. The Chandrayaan-3 mission successfully landed near which region of the Moon?

- (A) Equator (B) Far side
(C) South Pole (D) North Pole

50. Which organization is responsible for maintaining international peace and security?

- (A) United Nations (B) WHO
(C) IMF (D) WTO

51. G20 summit 2023 was hosted by which country?

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

52. The Indian Constitution came into effect on

- (A) 26 January 1950 (B) 2 October 1950
(C) 26 November 1949 (D) 15 August 1947

53. Which Indian ministry launched the Digital India initiative?

- (A) Ministry of Home Affairs (B) Ministry of Finance
(C) Ministry of Defence (D) Ministry of Electronics and Information Technology

54. The full form of GDP is

- (A) Gross Domestic Product (B) General Domestic Product
(C) Global Domestic Product (D) Gross Development Plan

55. Which country recently became the most populous in the world, surpassing China?

- (A) India (B) Nigeria
(C) Indonesia (D) Pakistan

56. The Paris Agreement is primarily related to

- (A) Trade tariffs (B) Human rights
(C) Climate change (D) Nuclear disarmament

57. Which body regulates the securities market in India?

- (A) RBI (B) NABARD
(C) SEBI (D) IRDAI

58. Who is the current Secretary-General of the United Nations?

- | | |
|-----------------------------|----------------------|
| (A) Kofi Annan | (B) Ban Ki-moon |
| (C) Javier Perez de Cuellar | (D) Antonio Guterres |

59. Which Indian mission focuses on studying the Sun?

- | | |
|----------------|-----------------|
| (A) Gaganyaan | (B) Aditya-L1 |
| (C) Mangalyaan | (D) Chandrayaan |

60. BRICS is an association of which group of nations?

- | | |
|--|--|
| (A) Britain, Russia, India, Canada, Spain | (B) Belgium, Russia, Iceland, China, Sudan |
| (C) Brazil, Russia, India, China, South Africa | (D) Brazil, Romania, India, Chile, Spain |

Section D — Future Skills, Technology & AI Awareness

Questions 61 to 100 • 40 marks

61. What does AI stand for?

- | | |
|---------------------------|-----------------------------|
| (A) Applied Informatics | (B) Artificial Intelligence |
| (C) Automated Information | (D) Advanced Integration |

62. Which of these is a type of machine learning?

- | | |
|----------------------|-------------------------|
| (A) Passive learning | (B) Static learning |
| (C) Manual learning | (D) Supervised learning |

63. A neural network is inspired by the structure of the

- | | |
|-----------------|--------------------|
| (A) Human brain | (B) Human liver |
| (C) Human heart | (D) Human skeleton |

64. Which of the following is used to train a machine learning model?

- | | |
|---------------|-------------|
| (A) Compiler | (B) Router |
| (C) Antivirus | (D) Dataset |

65. What is the term for a computer program that mimics human conversation?

- | | |
|-------------|--------------|
| (A) Server | (B) Firewall |
| (C) Chatbot | (D) Browser |

66. Which company developed the ChatGPT language model?

- | | |
|---------------|------------|
| (A) Google | (B) OpenAI |
| (C) Microsoft | (D) Amazon |

67. In cybersecurity, what does the term phishing refer to?

- | | |
|--|--------------------------|
| (A) A fraudulent attempt to obtain sensitive information | (B) A type of firewall |
| (C) A software update | (D) A type of encryption |

68. What does the term Big Data refer to?

- | | |
|--|-------------------------------|
| (A) A single database table | (B) Small structured datasets |
| (C) Extremely large and complex datasets | (D) A type of hardware |

69. Which of the following is an example of supervised learning task?

- | | |
|--------------------------------------|-------------------------------|
| (A) Anomaly detection without labels | (B) Clustering customers |
| (C) Dimensionality reduction | (D) Spam email classification |

70. What is the primary purpose of encryption?

- | | |
|---|-------------------------------|
| (A) To delete data permanently | (B) To compress files |
| (C) To protect data by converting it into unreadable form | (D) To speed up data transfer |

71. Which of the following best defines an algorithm?

- | | |
|---|----------------------------------|
| (A) A programming language | (B) A type of computer hardware |
| (C) A step-by-step procedure to solve a problem | (D) A database management system |

72. What is the role of a firewall in a computer network?

- | | |
|--|--------------------------------|
| (A) To monitor and control incoming and outgoing network traffic | (B) To increase internet speed |
| (C) To store data | (D) To display graphics |

73. Which term describes making ethical decisions about how data is collected and used?

- | | |
|-----------------|----------------------|
| (A) Data ethics | (B) Data compression |
| (C) Data mining | (D) Data warehousing |

74. What is the term for self-employment involving starting and running a new business?

- | | |
|----------------------|-----------------|
| (A) Internship | (B) Outsourcing |
| (C) Entrepreneurship | (D) Employment |

75. Which of the following is a popular programming language used for AI and machine learning?

- | | |
|------------|--------------|
| (A) CSS | (B) SQL only |
| (C) Python | (D) HTML |

76. What does the term IoT stand for?

- | | |
|-----------------------------|------------------------------|
| (A) Input Output Technology | (B) Integration of Telecom |
| (C) Internet of Things | (D) Internal Operating Trend |

77. Which of the following best describes cloud computing?

- | | |
|-----------------------------------|---|
| (A) A programming paradigm | (B) Delivering computing services over the internet |
| (C) A type of weather forecasting | (D) Storing data only on local hard drives |

78. What is a key ethical concern regarding facial recognition technology?

- | | |
|---------------------------------------|-------------------------------|
| (A) Privacy and surveillance concerns | (B) It is too slow |
| (C) It uses too much electricity | (D) It cannot be used indoors |

79. Which of these skills is considered essential for future careers in technology?

- | | |
|----------------------------|---|
| (A) Avoiding computers | (B) Handwriting speed |
| (C) Rote memorization only | (D) Critical thinking and problem-solving |

80. What is the term for a network of interconnected devices that communicate data over the internet?

- | | |
|---------------|-----------------------------|
| (A) Intranet | (B) Internet of Things |
| (C) Bluetooth | (D) Local Area Network only |

81. Which of the following is a common application of natural language processing?

- | | |
|------------------------|--------------------------|
| (A) Image compression | (B) Language translation |
| (C) Sorting algorithms | (D) Circuit design |

82. What is meant by the term automation in the workplace?

- | | |
|--|-----------------------------|
| (A) Use of technology to perform tasks with minimal human intervention | (B) Increasing paperwork |
| (C) Manual completion of tasks | (D) Reducing computer usage |

83. Which of the following best describes a startup?

- | | |
|--|-------------------------------------|
| (A) An old established corporation | (B) A large government organization |
| (C) A newly established business, typically small and innovative | (D) A non-profit charity only |

84. What is the purpose of a resume in career building?

- | | |
|---|-----------------------------------|
| (A) To summarize skills, education, and experience for job applications | (B) To list personal hobbies only |
| (C) To apply for a passport | (D) To register for college exams |

85. Which term refers to protecting computer systems from digital attacks?

- | | |
|------------------------|-------------------|
| (A) Cybercafe | (B) Cyberbullying |
| (C) Cyberspace mapping | (D) Cybersecurity |

86. What does the acronym API stand for in computing?

- | | |
|---------------------------------------|-----------------------------------|
| (A) Application Programming Interface | (B) Advanced Program Installer |
| (C) Application Process Index | (D) Automated Process Integration |

87. Which of the following is an example of a soft skill valuable for future careers?

- | | |
|-----------------------|--------------------------------|
| (A) Coding syntax | (B) Data entry speed |
| (C) Hardware assembly | (D) Communication and teamwork |

88. What is a key benefit of remote work enabled by technology?

- | | |
|---|---------------------------------|
| (A) Increased flexibility and reduced commuting | (B) Mandatory office attendance |
| (C) Reduced flexibility | (D) Elimination of internet use |

89. Which term describes bias that can occur in AI systems due to unrepresentative training data?

- (A) Algorithmic bias
- (B) Data compression
- (C) Data encryption
- (D) Data redundancy

90. Which of the following is a renewable energy technology increasingly integrated with smart grids?

- (A) Solar panels
- (B) Coal power plants
- (C) Diesel generators
- (D) Kerosene lamps

91. What does the term UX stand for in technology design?

- (A) Unified Extension
- (B) Universal Exchange
- (C) User Experience
- (D) Utility Export

92. Which of these is a common tool used for version control in software development?

- (A) Photoshop
- (B) PowerPoint
- (C) Excel
- (D) Git

93. What is blockchain technology primarily known for enabling?

- (A) Centralized data storage
- (B) Video editing
- (C) Faster printing
- (D) Decentralized and secure record-keeping

94. Which career field combines biology and technology to develop new medical solutions?

- (A) Metallurgy
- (B) Cartography
- (C) Astronomy
- (D) Biotechnology

95. What is the main goal of digital literacy education?

- (A) To replace traditional literacy
- (B) To discourage computer use
- (C) To equip individuals with skills to effectively use digital technology
- (D) To teach only hardware repair

96. Which of the following best describes an internship?

- (A) A temporary work experience often for students or trainees
- (B) A permanent full-time job
- (C) A government subsidy
- (D) A type of pension plan

97. What is a common risk associated with sharing personal information on social media?

- (A) Identity theft and data misuse
- (B) Increased bandwidth
- (C) Faster internet speed
- (D) Improved privacy

98. Which emerging technology uses sensors and connectivity to make devices smart, such as smart homes?

- (A) Analog radio
- (B) Fax machines
- (C) Typewriters
- (D) Internet of Things

99. What does the term upskilling mean in the context of future careers?

- (A) Learning new skills to improve job performance and adapt to change
- (B) Quitting a job
- (C) Reducing job responsibilities
- (D) Avoiding technology

100. Which of the following is an ethical guideline important when developing AI systems?

- (A) Ignoring user privacy
- (B) Ensuring fairness, transparency, and accountability
- (C) Avoiding testing before deployment
- (D) Maximizing data collection without consent

Answer Key — Class 11 Sample Question Paper

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

Section-wise Distribution of Answers

Section	Questions	A	B	C	D
Section A — Subject Knowledge	1 – 20	3	6	4	7
Section B — Reasoning & Mathematics	21 – 40	3	6	7	4
Section C — General Knowledge & Current Awareness	41 – 60	8	2	7	3
Section D — Future Skills, Technology & AI Awareness	61 – 100	14	6	10	10

© FCO Assessment Foundation • This sample paper is for practice purposes only and may be freely shared with students, parents and schools.