

ஏவ்வகை பொடி கல்விக் கடத் (நேர் வை) பின்னால், 2016 கல்வியின் கல்விப் பொதுத் தராதுப் பந்திர் (உயர் தரு)’ பிரிவை, 2016 ஒக்டோபர் General Certificate of Education (Adv. Level) Examination, August 2016

சூலாங்க பொடி பரிக்ஷை பொதுச் சாதாரணப் பரிட்சை **Common General Test**

12 E

ପ୍ରେସ୍ ଦେବକାର ଲେଖିବାରୁ ନିହାର
ଇରଣ୍ୟରୁ ମଣିତତ୍ତ୍ୟାଳାମୁମ୍ ମୁପ୍ପତୁ ନିଯିଟିମୁମ୍
Two hours and thirty minutes

Instructions:

- * Arrange the question paper according to the page numbers.
- * Answer all the questions.
- * Use of calculators is not allowed.
- * Write your Index Number in the space provided in the answer sheet.
- * Instructions are given on the back of the answer sheet. Follow those carefully.
- * In each of the questions 1 to 60, pick one of the alternatives from (1), (2), (3), (4), (5) which is correct or most appropriate and mark your response on the answer sheet with a cross (x) in accordance with the instructions given on the back of the answer sheet.

1. The 2016 ICC Twenty-20 World cup cricket tournament was won by
(1) England. (2) West Indies. (3) India. (4) Sri Lanka. (5) Australia.

2. The 100th birth anniversary of the late Mrs. Sirimavo Bandaranayake was commemorated on 17th of April 2016. She was
(1) the first female Prime Minister in the world.
(2) the first female President in the world.
(3) the first President of Sri Lanka.
(4) the first Prime Minister of Sri Lanka.
(5) the first female Speaker of the parliament of Sri Lanka.

3. Sri Lankan government has decided to declare 26th of October, the birthday of an eminent civil engineer and an inventor in Sri Lanka, as the inventors' day of Sri Lanka. What is the name of this person?
(1) C. W. W. Kannangara (2) D. J. Wimalasurendra (3) A. N. S. Kulasinghe
(4) Upali Wijewardene (5) Geoffrey Bawa

4. In April 2016, Sri Lanka's Parliament was convened as a constitutional assembly with the aim of drafting a new constitution for Sri Lanka. The chairman of the constitutional assembly is
(1) the Prime Minister. (2) the Speaker of the Parliament.
(3) the Minister of Justice. (4) the Minister of Parliamentary Affairs.
(5) the Leader of the Opposition in the Parliament.

5. In February 2016, Prince Zeid Ra'ad Al Hussein visited Sri Lanka in his official capacity of the United Nations (UN). He is
(1) the High Commissioner of United Nations for Human Rights.
(2) the High Commissioner of United Nations for Refugees.
(3) the Special Envoy of United Nations for Global Education.
(4) the Special Envoy of United Nations for Youth and Sports.
(5) the Executive Director of the United Nations Children's Fund.

6. The XII South Asian Games were held in February 2016. The host country was
(1) Nepal. (2) Pakistan. (3) Sri Lanka. (4) Bangladesh. (5) India.

7. John Kerry, a senior United States government representative, visited Sri Lanka in May 2015 to renew ties between the two countries. In what capacity of the United States government did he visit Sri Lanka?
(1) The Secretary of State (2) The Secretary of the Treasury
(3) The Secretary of Defence (4) The Secretary of Agriculture
(5) The Secretary of Labour

8. In August 2015, a retired test cricketer was appointed as the brand ambassador of the National Dangerous Drugs Control Board by the President of Sri Lanka. What is the name of this cricketer?
(1) Roshan Mahanama (2) Mahela Jayawardene (3) Sanath Jayasuriya
(4) Kumar Sangakkara (5) Dulip Mendis

9. In February 2016, the World Health Organization (WHO) declared the spread of Zika virus, a public health emergency of international concern requiring immediate actions. Humans are infected by this virus primarily

- through infected mosquitoes.
- by touching a dirty surface.
- through drinking water.
- through contaminated dairy products.
- through food.

10. Which one of the following diseases is **not** preventable by vaccination?

- Rabies
- Chicken pox
- Diabetes
- Polio
- Measles

11. The headquarters of the Asian Development Bank (ADB) is in

- Philippines.
- Indonesia.
- Thailand.
- India.
- Japan.

12. Global Youth Tobacco Survey (GYTS) is a school-based survey conducted in countries worldwide to monitor tobacco use among school children. In 2015, GYTS was conducted in Sri Lanka in collaboration with the Ministry of Education and the Ministry of Health. GYTS is initiated by

- the International Monetary Fund (IMF).
- the United Nations Educational, Scientific and Cultural Organization (UNESCO).
- the World Health Organization (WHO).
- the International Labour Organization (ILO).
- the United Nations Industrial Development Organization (UNIDO).

13. The first safari park constructed in Sri Lanka was opened in March 2016. It is located in

- Ridiyagama in Hambantota District.
- Kalpitiya in Puttalam District.
- Pinnawala in Kegalle District.
- Minneriya in Polonnaruwa District.
- Delft in Jaffna District.

14. In addition to the four currencies US dollar, the Euro, the British pound and the Japanese Yen, a new currency has been introduced as one of the elite currencies of the world by the International Monetary Fund recently. What is the name of this currency?

- Chinese Renminbi
- Chinese Yuan
- Saudi Dinar
- Philippines Peso
- Russian Ruble

15. "Prohibition of Ragging and other forms of violence in educational institutions Act no. 20 of 1998" was passed by the parliament. According to this act, which one of the following is **not considered** as a punishable offence?

- Committing an act of ragging or participating in ragging, within or outside of educational institutions.
- Committing sexual harassment or grievous hurt to a student or a member of the staff of an educational institution during an act of ragging.
- Threatening verbally or in writing to tarnish the reputation of any student or a member of the staff.
- Occupation by force any premises of an educational institution.
- Display of academic posters in an educational institution.

16. The day of the date 2016-01-01 was a Friday. The day of the date 2018-01-01 is

- a Sunday.
- a Monday.
- a Tuesday.
- a Wednesday.
- a Thursday.

17. If the weight of 4 two-rupee coins and 2 one-rupee coins is equal to the weight of 2 two-rupee coins and 6 one-rupee coins, the weight of a one-rupee coin is

- $\frac{1}{4}$ of the weight of a two-rupee coin.
- $\frac{1}{3}$ of the weight of a two-rupee coin.
- $\frac{2}{3}$ of the weight of a two-rupee coin.
- $\frac{1}{2}$ of the weight of a two-rupee coin.
- $\frac{3}{4}$ of the weight of a two-rupee coin.

18. A doctor prescribed a patient two kinds of medication, of which the first kind is to be taken every six hours and the second kind every eight hours for seven days. If the patient takes both medications at 6 a.m. on the first day, when will he take both medications at the same time again?

- 12 noon of the same day
- 4 p.m. of the same day
- 8 p.m. of the same day
- 10 p.m. of the same day
- 6 a.m. of the following day

19. According to the train timetable, any train leaving station A on time can reach station B on time if it maintains an average speed of 40 km h^{-1} . The train Kishani travelled departed 15 minutes late from station A, but reached station B on time by maintaining an average speed of 45 km h^{-1} . What is the distance between the two stations A and B?

- 90 km
- 60 km
- 56 km
- 48 km
- 45 km

20. A class of 128 girls and 96 boys should be divided into a number of groups so that groups are identical with respect to the number of girls and the number of boys in a group. What is the maximum number of groups that can be formed?

(1) 2 (2) 4 (3) 24 (4) 32 (5) 48

• Questions 21, 22 and 23 are based on the following information.

Two masons have been hired to construct a wall of 800 cement blocks and plaster its two sides. The first mason lays blocks at a rate of 100 blocks per hour and plasters at a rate of 50 blocks both sides per hour. The second mason lays blocks at a rate of 60 per hour and plasters at a rate of 75 blocks both sides per hour. Both masons first started laying blocks. After both of them have collectively laid 400 blocks, the second mason moved to plastering the wall, while the first mason continued to lay the remaining blocks. Once the first mason finished laying all blocks, he joined the second mason to continue plastering the wall until all work was completed.

21. What was the time the first mason spent in laying cement blocks?

(1) 8 hours (2) 7 hours and 30 minutes (3) 6 hours and 30 minutes
 (4) 6 hours (5) 5 hours and 30 minutes

22. What was the time duration in which both masons were plastering the wall at the same time?

(1) 2 hours (2) 2 hours and 30 minutes (3) 3 hours and 30 minutes
 (4) 4 hours (5) 6 hours

23. How long did it take to complete the work?

(1) 8 hours (2) 8 hours and 30 minutes (3) 9 hours and 30 minutes
 (4) 10 hours (5) 10 hours and 30 minutes

24. Two pumps, each pumping water at a constant rate, take 3 hours to fill an empty swimming pool completely. The first pump alone takes 5 hours to fill it completely. How much time does the second pump alone take to fill it completely?

(1) 6 hours (2) $6\frac{1}{2}$ hours (3) 7 hours (4) $7\frac{1}{2}$ hours (5) 8 hours

25. Starting from the stumps at the bowler's end of a cricket ground, Ramesh walks 5 m towards east and then 9 m towards north and finally 7 m towards east and takes a position in the field. What is the distance between Ramesh and the stumps at the bowler's end?

(1) 21 m (2) 19 m (3) 16 m (4) 15 m (5) 12 m

26. A group of children consists of 10 girls and 15 boys. The average age of girls is 8 years and 4 months, while that of boys is 8 years and 9 months. What is the average age of this group of children?

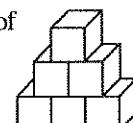
(1) 8 years and $8\frac{1}{2}$ months (2) 8 years and 7 months (3) 8 years and $6\frac{1}{2}$ months
 (4) 8 years and 6 months (5) 8 years and 5 months

27. Starting from the same position of a circular track and at the same time, Raj walked and Sera ran clockwise along the track at uniform speeds. When Raj completed his first round, Sera had passed him twice. The speed Sera ran was

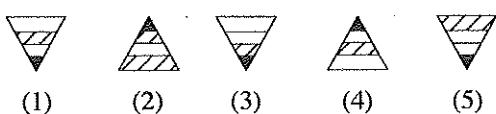
(1) more than twice but less than thrice the speed Raj walked.
 (2) exactly thrice the speed Raj walked.
 (3) exactly twice the speed Raj walked.
 (4) more than thrice the speed Raj walked.
 (5) less than twice the speed Raj walked.

28. Six cubes of size 1 m^3 are stacked on the floor to make the shape given in the figure. If all of the exposed area are painted, what is the surface area of the shape that has been painted?

(1) 21 m^2 (2) $18\frac{1}{2}\text{ m}^2$ (3) 20 m^2 (4) 19 m^2 (5) 17 m^2



29. Which one is the missing figure in the given sequence?

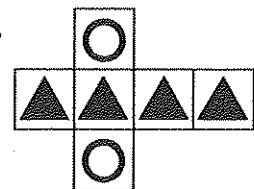
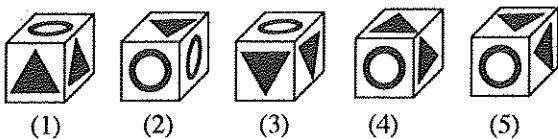


(1) (2) (3) (4) (5)

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30. Which one of the following cubes cannot be made by using the given block?



31. To make a fruit drink, concentrated orange juice, concentrated pineapple juice and water are mixed together in the ratio of 1 : 2 : 3 in volume. How many litres of concentrated pineapple juice are needed to prepare 1200 litres of this fruit drink?

(1) 600 (2) 500 (3) 400 (4) 300 (5) 200

● Questions 32 and 33 are based on the following information.

Out of 140 patients who arrived at the Out Patients' Department of a hospital on a certain day, 66 were diabetic, 79 had high blood pressure and 48 had other ailments.

32. Which one of the following statements is necessarily true?

(1) At least one patient having diabetes or high blood pressure suffers from another ailment.
 (2) Some patients who have diabetes do not have high blood pressure.
 (3) At least 27 patients have diabetes, high blood pressure and another ailment.
 (4) More than half of the diabetes patients have high blood pressure.
 (5) No patient has asthma.

33. If 42 patients have only diabetes and 13 patients have both high blood pressure and diabetes, how many patients have diabetes and another ailment, but not high blood pressure?

(1) 11 (2) 12 (3) 13 (4) 14 (5) 15

● Questions 34 and 35 are based on the information below.

Approximate total production of each principal agricultural crop in Sri Lanka during the period 2013 to 2015 is given in the table below.

Year	Tea (million kg)	Rubber (million kg)	Coconut (million nuts)
2013	340	130	2513
2014	338	99	2870
2015	329	89	3056

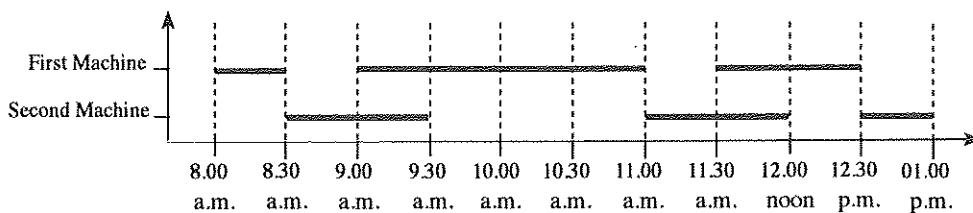
34. What is the approximate percentage of increase of the coconut production from 2014 to 2015?

(1) 2% (2) 4% (3) 6% (4) 8% (5) 10%

35. What is the average value of total tea production per year for the given period in millions of kilograms?

(1) 329 (2) 336 (3) 337 (4) 338 (5) 340

● For questions 36 and 37, consider the following graph which depicts the working time of two machines producing identical units of the same product.



36. What is the ratio between the working time of first machine and the working time of second machine from 8.00 a.m. to 1.00 p.m.?

(1) 5 : 6 (2) 5 : 7 (3) 6 : 5 (4) 7 : 5 (5) 8 : 7

37. The number of units produced by first machine and second machine from 8.00 a.m. to 1.00 p.m. are represented by U_1 and U_2 respectively. Which of the following will confirm that the first machine is more efficient than the second machine?

(1) $U_1:U_2 = 1000:750$ (2) $U_1:U_2 = 1200:1000$ (3) $U_1:U_2 = 1300:1000$
 (4) $U_1:U_2 = 1500:1000$ (5) $U_1:U_2 = 2000:1500$

38. The mosquito population in wonderland decreases by $\frac{1}{3}$ per each month. If the mosquito population by 1st of October 2015 was found to be 300, what was the mosquito population by 1st of July 2015?
 (1) 100 (2) 900 (3) 2700 (4) 8100 (5) 24300

39. What is the digit d in the following sum?

$$\begin{array}{r}
 a \quad b \quad c \\
 + a \quad b \quad c \quad d \\
 \hline
 2 \quad 0 \quad 1 \quad 6
 \end{array}$$

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(1) 1 (2) 2 (3) 3 (4) 4 (5) 5

● Questions 40 and 41 are based on the following paragraph:

Anil, Neela, Kumar, Umair and Shannon are the committee members of the Association for Ethnic Harmony. The committee consists of posts president, secretary, treasurer, convenor and spokesperson for media. During the last Annual General Meeting, Kumar, the spokesperson spoke the most, while the treasurer spoke the least. Anil spoke more than the convenor but less than the president.

40. The secretary of the committee is

(1) Shannon. (2) Anil. (3) Neela. (4) Kumar. (5) Umair.

41. In addition, both Neela and Umair spoke less than Shannon. The president of the committee is

(1) Shannon. (2) Anil. (3) Neela. (4) Kumar. (5) Umair.

● Questions 42 and 43 are based on the following description.

A movie company decides to produce three movies given below.

- * Hotwater Pond
- * Freshwater Pond
- * Saltwater Pond

The company has its own crew consisting of an actor, an actress, a musician, a cinematographer and an editor. The company will assign them, after considering their demands and conditions mentioned below, and hire the rest from outside.

- (a) The actress will appear only in one movie.
- (b) The actress will not appear in the Hotwater Pond, if the actor appears in it.
- (c) The musician will compose for the Saltwater Pond.
- (d) Either the actor or the cinematographer will work for the Saltwater Pond.
- (e) The cinematographer and the musician will refuse to work in the same movie.

42. Which of the following is a possible assignment?

	Hotwater Pond	Freshwater Pond	Saltwater Pond
(1)	actor, actress, editor	actor, musician, editor	musician, cinematographer, editor
(2)	actress, cinematographer, editor	actor, cinematographer, editor	actress, musician, editor
(3)	actor, cinematographer, editor	actress, cinematographer, editor	actor, musician, editor
(4)	actor, cinematographer, editor	actor, musician, editor	actor, actress, editor
(5)	actor, cinematographer, editor	musician, cinematographer, editor	actress, musician, cinematographer

43. Consider the following assignment.

Hotwater Pond	Freshwater Pond	Saltwater Pond
actress a b	editor c d	actor musician e

Which of the following is necessarily true?

(1) a = cinematographer (2) b = musician (3) c = actor
 (4) d = actress (5) e = editor

44. Which one of the following pairs of observation - conclusion is **not always true**?

	Observation	Conclusion
(1)	The volume of a cube is 8 cm^3 .	Its side length is 2 cm.
(2)	The circumference of a circle is $8\pi \text{ cm}$.	Its radius is 4 cm.
(3)	Three straight lines drawn on a plane intersect only at two points.	Two of them are parallel to each other.
(4)	Two sides of a right angled triangle are of length 4 cm and 5 cm.	The length of the other side is 3 cm.
(5)	The perimeter of a square measured in centimetres equals twice its area in square centimetres.	Its side length is 2 cm.

45. Commenting on unusually high temperatures experienced in Sri Lanka, a newspaper claimed that the major reason for this situation is the irregular rainfall patterns.

Which of the following statements, if true, will most seriously weaken this newspaper claim?

- (1) The rainfall patterns were very regular in Kerala in India, where the same temperature increase took place.
- (2) The rainfall patterns in Sri Lanka have been studied only during the past twenty years.
- (3) The rain cycle in Sri Lanka is often disturbed by excessive emissions from motor vehicles.
- (4) Irregular rainfall patterns have worse impact on agriculture than climate.
- (5) Irregularity of rainfall patterns is not the only reason for the increase of temperature.

● For questions 46 and 47, read the following paragraph.

In the month of May 2016, Sri Lanka has been experiencing back-to-back weather calamities in the form of a blistering drought followed by disastrous stormy rains that triggered landslips and flood, killing scores of people and rendering thousands more homeless. The havoc caused by flash floods, strong winds and lightening temporarily rendered several city roads and suburbs impassable.

In 1956, Sri Lanka's forests covered about 7 million acres of the country's total land area of approximately 16 million acres. During the past 60 years, the forest cover has been reduced from 44% to 17% and today it stands around 3 million acres.

Natural disasters are exacerbated by sand mining, destruction of mangroves, filling of water retention areas and illegal constructions which block existing drainage systems.

46. According to the paragraph, climatic disasters occur due to

- (1) the anger of weather god with Sri Lankans.
- (2) storms crossing through Sri Lanka and eastern India to Bangladesh.
- (3) mounts of garbage blocking the flood water passing to sea.
- (4) depletion of forests cover, destruction of mangroves and blocking existing drainage systems.
- (5) excess soil formation from mountain rocks in hill regions that flows down during heavy rain.

47. This passage **does not** explicitly say about

- (1) unlawful construction of buildings.
- (2) construction of two underground drainage systems leading to sea.
- (3) filling of water retention areas.
- (4) reduction of forest coverage to less than 20%.
- (5) occurrence of very high heat drought and heavy rain, flood and landslips in the month of May 2016.

48. A member of an intelligence unit received a coded message 'FTDBQFE'. It was deciphered as 'ESCAPED'. Which of the following words is the translation of his response message 'GPVOE'?

- (1) FOUND
- (2) ERASE
- (3) GUIDE
- (4) FIGHT
- (5) GROUP

● In question numbers 49, 50 and 51, a conclusion and three sets of information numbered I, II and III are given.

- * If the conclusion can be made by using only one of the three sets of information, select A,
- * If the conclusion can be made by using sets I and II together, select B,
- * If the conclusion can be made by using sets I and III together, select C,
- * If the conclusion can be made by using sets II and III together, select D,
- * If the conclusion can be made by using sets I, II and III together, select E.

49. Conclusion: Due to heavy rain experienced in mid May 2016, five districts were heavily affected by landslides.

I. Rainfall up to 350 mm for 24 hours was experienced in some parts of Sri Lanka in mid May 2016.
II. The districts Kegalle, Rathnapura, Kaluthara, Badulla and Kandy were highly affected due to very heavy stormy rain that caused flood and landslide in the month of May 2016.

III. Due to mid May 2016 rain, the wave of heat experienced in the country in April/May 2016 was cooled down.

- (1) A
- (2) B
- (3) C
- (4) D
- (5) E

50. Conclusion: Private bus transport service supplements the state bus transport service.

- Private bus service does not cover uneconomical bus routes.
- The number of buses available in the state bus transport service alone is not sufficient to meet the demand of passengers.
- The government time to time comes to agreements with private bus owners on bus fares and bus running time tables.

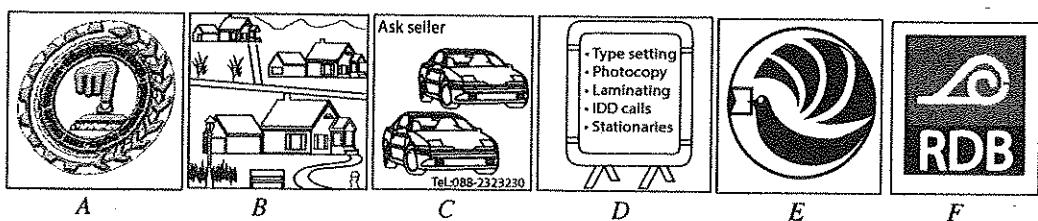
(1) A (2) B (3) C (4) D (5) E

51. Conclusion: The number of students who sat for Science for Technology (ST) is more than that of Bio-systems Technology (BT) in August 2015 G.C.E. A/L examination.

- The number of students who sat for Engineering Technology (ET) is less than that of Information and Communication Technology (ICT).
- The number of students who sat for BT is less than that of ET.
- The number of students who sat for ST is more than that of ET.

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

● Study the signs given below to respond to questions 52 and 53.



52. Which of the following pairs provide saving account facilities?

(1) A and E (2) B and C (3) C and D (4) D and E (5) E and F

53. Arrange the English letters representing the corresponding signs for the following, in sequential order from (a) to (d).

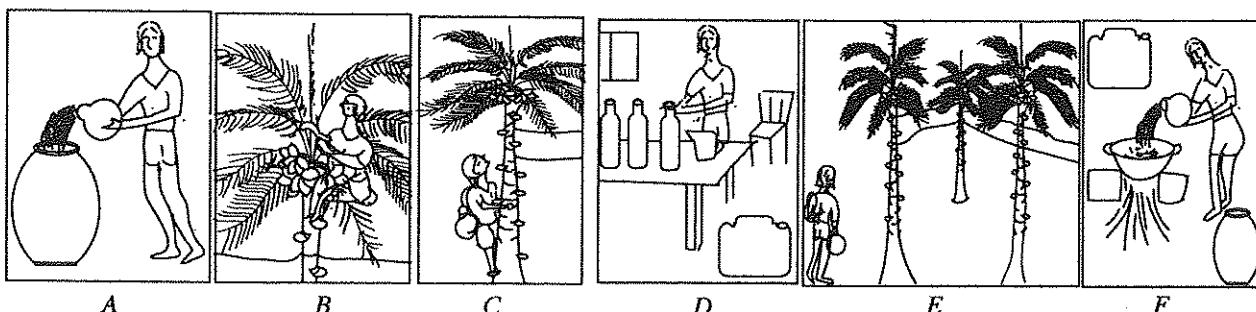
(a) Residential property	(b) Pavement board
(c) National Savings Bank	(d) Vehicle fleet

(1) BEDC (2) BDFC (3) BDAC (4) BEFC (5) BDEC

54. Choose the conceptually different sequence.

- egg → larva → pupa → moth
- seed → tree → seed → tree
- wheel → cart → steam wagon → automobile
- hunter → shepherd → farmer → craftsman
- big bang → subatomic particles → atoms → galaxies

55. Six pictures related to a particular incident are given. Choose the response which contains pictures in correct sequence.



(1) CBAFDE (2) EBAFDC (3) ECBAFD (4) CBEFAD (5) EBACFD

56. The following is a conversation that took place between a class teacher and students in a class room, but not in the correct sequence. Select the answer that represents the most logical sequence.

- For questions 57 and 58, read the following statements.

- A - Kamal was the opening batsman.
- B - Coach divided the team into small groups and provided them net practice.
- C - Kamal picked up a bat and a ball and put them in a bag.
- D - Kamal's team scored 55 runs for 4 wickets.
- E - Coach grouped them into two teams of six-a-side and set up a friendly game of 10 overs for each side.
- F - Kamal went to playground in his motor bike.
- G - Kamal was the wicket keeper in the next game.
- H - Coach declared Kamal's team as the winner of the game.
- I - Coach gave physical exercises to the team and Kamal joined the exercises.
- J - Wimal's team has scored 30 runs in 8 overs when rain washed out the game.

57. Select the correct sequence of statements up-to the net practice.

(1) C, A, B (2) F, C, B (3) I, B, E (4) F, I, B (5) E, I, B

58. Select the option with the correct sequence of statements, which are relevant to the incidents that led the coach to declare the winner.

(1) E, A, G (2) A, G, D (3) E, I, D (4) G, J, D (5) E, D, J

- In each of the questions 59 and 60, five short passages, each with three statements, are given. In only one of the passages the three statements can be rearranged in order to show a logical relationship. Select the passage which contains the statements that can be rearranged to show a logical relationship.

59. (1) Mango trees bear fruits twice a year. Cashew trees bear fruits once a year. Mango fruits are larger than cashew fruits.

(2) Paddy is grown as a rain fed crop as well as an irrigated crop. Paddy can be grown in both yala season and maha season. In order to grow paddy in yala season, irrigated water should be made available.

(3) In salterns, sea or lagoon water is pumped into salt fields. In order to initiate salt crystallisation, powdered salt is sprayed into the salt field at the correct stage. Water is evaporated by solar power under natural process.

(4) Children go to school in the morning. School children generally attend to recreational activities in the evening. Pre-school children do not have any particular time for recreational activities.

(5) Government encourages bee keeping. Bee honey is good for health. Honey is a preservative.

60. (1) Agriculture is labour-intensive. Nowadays, farm machineries are used in agriculture. It is cheaper to use farm machinery than direct labour.

(2) Ambulance service was called. The young man was knocked down by the train. A young man who was a suspect in several robberies attempted suicide.

(3) The girl left home in her push bicycle to go to school. The girl's father is a teacher. The daughter attends the school where her father is teaching.

(4) Tarun is a mechanic at a reputed motor bike Repair Centre in town. Tarun has a mini workshop at home. During off hours and non-working days Tarun does repair work at home.

(5) Deep-sea fishing industry provides jobs to many Sri Lankans. Sri Lanka has resumed export of fish to European countries. Inland fishing is common in Sri Lanka.