

**TEST CODE  
111116**



**WGSE 2016**

**CLASS 11&12  
PART 1: LOGIC,  
WASTE MANAGEMENT & GK**

**World Genius Search  
Examination™ - 2016**

Time : 120 Minutes for Part 1&2

Your WGSE Roll No

Student's Name

Student's Signature \_\_\_\_\_

**INSTRUCTIONS TO THE CANDIDATE**

- DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO.**
- Fill and sign the Question Booklet. You can carry this booklet with you after you finish the test at the scheduled time.
- Fill the information required in the answer sheet. Answer sheets with incomplete information may not be evaluated.
- Do not seek clarification on any item in the test booklet from anyone including the test invigilator or the center supervisor. Use your best judgement.
- This booklet consists of Part 1 – **LOGIC & GENERAL KNOWLEDGE**. PART - 1 is compulsory and it is the same test for Class 11 & 12. But PART – 2 differs both class wise and subject wise.
- In case of any problem with your test booklet, inform the invigilator immediately. You will be provided with a replacement.
- Use of standalone Calculator is allowed. Mobile phones are strictly prohibited.
- Use **BLACK BALL POINT PEN** only for marking answers on the OMR sheet. Do not use gel pens or pencils.
- Each question carries 2 marks. Section 1 Questions 1 to 30 will have one correct answer as per the directions given. Shading wrong bubbles make the answer wrong. There are no negative marks allotted to wrong answers.**
- Use the margin in the **Question Booklet** for rough work. No other piece of paper is permitted to be used for rough work. Failure to follow instructions and examination norms will lead to disqualification.
- Your **ADMIT CARD** should be returned to the invigilator with your answer sheets.

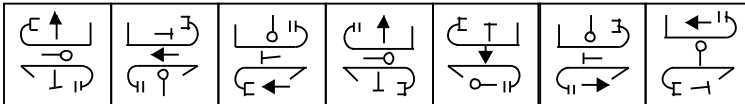
**PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET**

Open from this side —————>

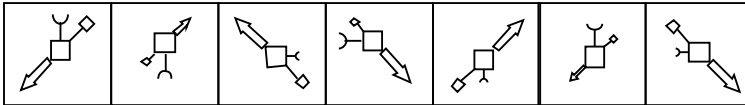


**LOGIC**

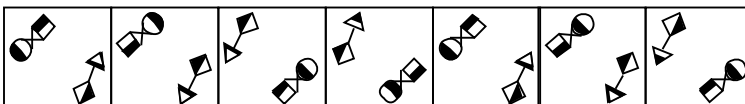
Each of the following series consists of seven figures. One of the four (a), (b), (c) and (d) numbered figures does not fit into the series. Find out the figure

01. 

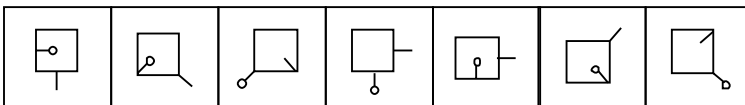
(a) (b) (c) (d)

02. 


(a) (b) (c) (d)

03. 

(a) (b) (c) (d)

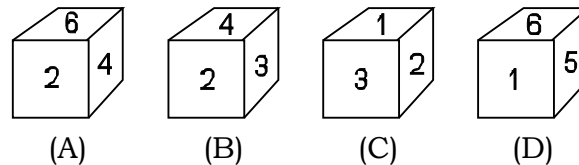
04. 

(a) (b) (c) (d)

05. 

(a) (b) (c) (d)

06. Four positions of the same dice are given below.

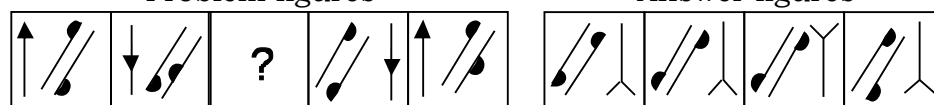


Which number is opposite to number 2?

- (a) 4 (b) 6 (c) 5 (d) 3

07. Which answer option will replace the question mark in the problem figures?

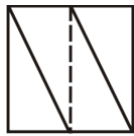
Problem figures Answer figures



1 2 3 4 5 (a) (b) (c) (d)

08. A square transparent sheet with a pattern is given. Figure out from the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.

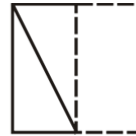
**Transparent Sheet**



**Response Figures**



(a)



(b)



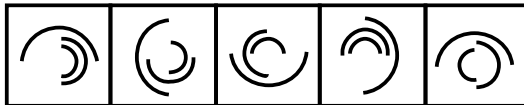
(c)



(d)

09. **Directions:** The following question consists of five figures marked 1, 2, 3, 4 and 5 called the Problem Figures followed by four other figures marked a, b, c and d called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

**Problem Figures**



1

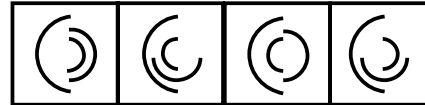
2

3

4

5

**Answer Figures**



(a)

(b)

(c)

(d)

10. **Directions:** There is a blank space in the question in which only one of the four given alternatives satisfy the same relationship as it is found between the two terms on the other side of the sign : : .

Find the correct alternative to fill in the blank space.

Telephone : Ring : : ..... : .....

- (a) Door : Knock      (b) Gate : Open      (c) Door : Wood      (d) Lock : Key

11. In a queue of children, Afreen is fifth from the left and Quana is sixth from the right. When they interchange their places among themselves, Afreen becomes thirteenth from the left. Then, what will be Quana's position from the right?  
 (a) 4th                      (b) 14<sup>th</sup>                      (c) 8th                      (d) 15th

12. From a point, Sachin started walking towards east and walked 35 m. He then turned towards his right and walked 20 m and he again turned right and walked 35 m. Finally he turned to his left and walked 20 m and he reached his destination. Now, how far is he from his starting point?  
 (a) 55 m                      (b) 50 m                      (c) 20 m                      (d) 40 m

**Directions:** (Q. 13 to 15): Read the following to answer the questions.

Four friends Wisden, Vidya, Hypatia, and Afreen are studying together in Class 10. Wisden and Vidya are good in Hindi but poor in English. Wisden and Hypatia

# 11 GENERAL KNOWLEDGE & LOGIC

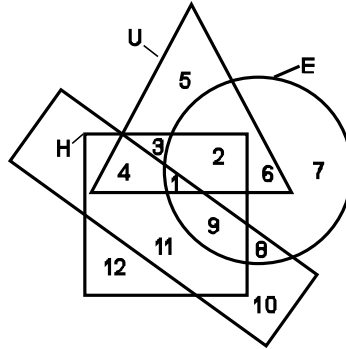


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are good in Sanskrit but poor in Geography. Afreen and Vidya are good in Maths as well as Sanskrit.

13. Which of the following pair of friends is good in Sanskrit and Hindi?  
(a) Hypatia - Afreen (b) Wisden - Vidya  
(c) Afreen - Wisden (d) Vidya - Hypatia
14. Which of the following pair of friends is good in Maths and Sanskrit?  
(a) Wisden and Afreen (b) Wisden and Hypatia  
(c) Hypatia and Afreen (d) Afreen and Vidya
15. Tony travelled 4 km straight towards south. He turned left and travelled 6 km straight, then turned right and travelled 4 km straight. How far is he from the starting point?  
(a) 8 km (b) 10 km (c) 12 km (d) 18 km

**Direction: (Q. 16 to 18) In the given diagram, the circle stands for the 'educated', square for the 'hardworking', triangle for the 'urban' and the rectangle for the 'honest' people. Different regions in the diagram are numbered from 1 to 12. Study the diagram carefully and choose the correct answer for the following questions.**



16. People who are educated and hardworking and honest but not urban are represented by  
(a) 8 (b) 1 (c) 2 (d) 9
17. Hardworking people, who are uneducated, dishonest and are urban, are represented by  
(a) 2 (b) 4 (c) 9 (d) 3
18. Hardworking, non-urban people who are neither educated nor honest are indicated by  
(a) 10 (b) 12 (c) 11 (d) 9

**Read the following paragraph and answer the questions below it.**

Rama and Mohan are married couple having two daughters named Smita and Devika. Devika is married to a man who is the son of Madhu and Jeewan. Romila is the daughter of Aman. Krishna who is Aman's sister is married to Sunil and has two sons Anuj and Ankur. Ankur is the grandson of Madhu and Jeewan.

19. Which of the following is true?  
(a) Anuj is the son of Smita (b) Romila is the cousin of Krishna  
(c) Madhu is Sunil's mother-in-law (d) Jeewan is Devika's maternal uncle
20. Rama remembers that she met her brother on Saturday, which was after the 20<sup>th</sup> day of a particular month. If the 1<sup>st</sup> day of that month was Tuesday, then on which date did Rama meet her brother?  
(a) 24<sup>th</sup> (b) 23<sup>rd</sup> (c) 25<sup>th</sup> (d) 26<sup>th</sup>

**Note: 2016 Question paper consists of 20 Logic and 20 GK Questions. But from 2017 onwards question paper will have 20 Logic, 10 Water and Waste Management and 10 GK Questions.**

### **GENERAL KNOWLEDGE**

21. Which is the first atomic plant established in India?  
(a) Kaiga (b) Kakrapar (c) Kalpakkam (d) Tarapur
22. Which instrument determines specific gravity of liquids?  
(a) Gravimeter (b) Hydrometer (c) Hygrometer (d) Hypsometer
23. The oil in the wick of an oil lamp rises up due to the phenomenon of :  
(a) Difference in pressure (b) Gravitational pull  
(c) Capillary action (d) Oil being lighter
24. The current Reserve Bank of India Governor is a highly respected economist who has done his graduation in Engineering from IIT Delhi. He seems to be developing new theorems in economics using his scientific background. This confirms economics is a branch of science. Who is he?  
(a) Cyrus Mistry (b) Raghuram Rajan  
(c) K. Radhakrishnan (d) Aravind Kejriwal
25. Which state has become the India's first fully organic state?  
(a) Tripura (b) Sikkim (c) Himachal Pradesh (d) Haryana
26. L.P.G. is a hydrocarbon consisting of a mixture of :  
(a) Methane and Butane (b) Propane and Butane  
(c) Ethane and Propane (d) Ethane and Butane

27. The water in your area is hard. It means - it has high concentration of two metal ions. Which ions are they?  
(a) Sodium and Calcium (b) Potassium and Magnesium  
(c) Calcium and Magnesium (d) Sodium and Beryllium
28. Hypatia's uncle is serving Indian Navy. Which inert gas is used by deep sea Navy divers for breathing with substitution for nitrogen in the air?  
(a) Argon (b) Xenon (c) Helium (d) Krypton
29. Vidya's mother complained the smell of LPG in her kitchen, this morning. The chemical (ethyl mercaptan) added to the otherwise odourless LPG cooking gas for imparting a detectable smell. Which element is contained in the chemical compound added?  
(a) bromine (b) fluorine (c) chlorine (d) sulphur
30. Production of chlorofluorocarbons (CFC) gas which is proposed to be banned in India. Which of the following domestic products use CFC?  
(a) Television (b) Refrigerator (c) Tube light (d) Cooking gas
31. We use different clocks at home on various devices. Which clock is used to measure small time intervals accurately?  
(a) Analog clock (b) Quartz clock (c) Atomic clock (d) Digital clock
32. Earth has many seasons. Which of the following causes Earth's seasons?  
(a) The revolving earth's rotation around the sun  
(b) The varying amount of sunspot activity  
(c) The earth's orbit around the sun as an ellipse rather than a circle  
(d) The 24-hour a day rotation around the sun
33. Wisden has high caliber on right observations. He says if you do not know the right answer of a multiple choice question, opt for the longest answer! It will be right.  
Check whether it is correct. Opt the right option of the question given:  
The children of a colour-blind mother and a normal father will be  
(a) Normal daughters and colour blind and carrier sons  
(b) Normal sons and carrier daughters  
(c) Colour blind sons and carrier daughters  
(d) Colour blind sons and daughters
34. Which of the following is the process of science? (You might have seen that Question No.66 was dealing with this process)  
(a) Observation > Experiments > Hypothesis  
(b) Hypothesis > Observations > Experiments  
(c) Observation > Hypothesis > Experiments  
(d) Experiments > Observations > Hypothesis
35. Vidya went with Afreen and Quana to Nehru Planetarium, Mumbai to watch five planets together on the sky. Now she wonders how many geo-stationary satellites are required to cover the whole of Earth?  
(a) 3 (b) 4 (c) 5 (d) 6

36. Hypatia says she would like to learn Mathematical Biology at her graduation. Which organization offers courses in Mathematical Biology?  
(a) Bhabha Atomic Research Centre (b) Geological Institute of India  
(c) Indian Institute of Science (d) Tata Institute of Fundamental Research
37. Wisden and Vidya strongly support Delhi Government's traffic control mechanism to control air pollution as Delhi has very high air pollution. Which city among the following has least air pollution?  
(a) Lucknow (b) Patna (c) Hyderabad (d) Bengaluru
38. A ballistic missile is a missile that follows a projectile flight path with the objective of delivering one or more warheads to a predetermined target. With the successful test firing of Agni-5 ballistic missiles, Beijing is now within India's range. Do you know what the range of Agni 5 missile is?  
(a) 2000 km (b) 3000 km (c) 4000 km (d) 5000 km
39. Where did the concept of carbon credit originated?  
(a) Kyoto Protocol (b) Earth Summit, Rio de Janeiro  
(c) Montreal Protocol (d) G-8 Summit, Heiligendam
40. Which of the following is not an allotrope of Carbon?  
(a) Diamond (b) Graphite (c) Fullerenes (d) Glass

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