

VIDYA DEVI JINDAL SCHOOL, HISAR
Aptitude Assessment for Admission (2027 - 28)
Class: IX (Sample Paper)



Name of the Student: _____

Father's Name: _____

Mother's Name: _____

Registration No. : _____

Observer's Signature _____

Subject: English

Time: 40 Minutes

Max. mark – 20

1. Read the passage given below and answer the following questions:

7

SCHOOLS IN THE CLOUD

1. On a weekday morning, 64-year-old Jackie Barrow turns on her computer in her home in Saddleworth, England, logs on to Skype and makes a call. Halfway around the world, 50 students turn to their 12 shared computers in Kiagerin, a village in West Bengal. Within minutes, a projection of Barrow's face flickers and is greeted with cheers. "Hello everybody," she says, waving to the kids. "I don't know what an elephant looks like. Can you find me a photo of one?"

2. The assembled children, aged 5 to 14, set upon this task with the exuberance usually reserved for non-school activities. After five minutes of online searching, a diverse array of elephant photos is on their screens. "But I heard there are two types of elephants," says Barrow. "Indian and African. I don't know the difference."

3. By the end of the 40-minute session, their hunt for elephant-related knowledge has covered all types of elephants, their habitat, appearance, food, and reasons behind being threatened by poachers. In other sessions, Barrow plays them a song on her saxophone, makes a snowman while taking suggestions on which carrot to use for its nose, and introduces the children to her dog, Misty.

4. This is a School in the Cloud (SITC) centre, one of seven such set-ups, five in India and two in the UK, the brainchild of Sugata Mitra, an educational researcher and a professor at Newcastle University. The SITC concept brings together the ideas that children learn best when unsupervised and, in a group, and that a benign, encouraging presence is better than a strict teacher sitting at the head of the room.

5. Through its centres, the first of which began functioning in February 2014, Mitra is hoping to introduce a more effective model for learning than what he dubs the "19th-century approach" that persists in India.

6. The roots of this concept go back about 15 years. "In 1999, we launched the Hole in the Wall project in Delhi, which provided slum children with free access to a computer with an internet connection," Mitra says. "Through this, we observed that children can learn quickly when unsupervised and in groups, but also hit a ceiling beyond which they need assistance." Then Mitra thought: "who's more encouraging than a grandparent?" Accordingly, SITC registered 'grannies' identified through local NGOs in countries as far apart as England, Australia and Argentina. "They aren't all grannies or even senior citizens. We chose to have such supportive figures that can be accessible online as it removes the problem of proximity of people," says Mitra.

i. Why did Jackie Barrow make a Skype call?

ii. "Within minutes, a projection of Barrow's face flickers and is greeted with cheers". (paragraph 1). Barrow is cheered by

- | | |
|----------------------------|----------------------------|
| a. educational researchers | b. Sugata Mitra |
| c. fellow 'grannies' | d. students at SITC centre |

iii. Jackie Barrow made the students of the SITC centre in Kiageria, West Bengal

- | | |
|-----------------------------|-----------------------------------|
| (a) copycats | (b) information repeating parrots |
| (c) inquisitive researchers | (d) passive pupils |

iv. All of the following correctly describe Jackie Barrow's behaviour as a teacher EXCEPT 4.

- | | |
|-----------------|-------------------|
| (a) pleasant | (b) supportive |
| (c) encouraging | (d) authoritative |

v. "Jackie Barrow's students set upon the task given by her with the exuberance usually reserved for non-school activities" (paragraph 2). Here the word 'exuberance' means

- | | |
|----------------|---------------|
| (a) confusion | (b) interest |
| (c) excitement | (d) suspicion |

vi. List two qualifying conditions for the selection of grannies.

vii. A word in paragraph 4 that means the opposite of 'unkind or unfriendly'

is.....

2 Write a short story in 120 – 150 words, with the help of the cues given below. Give a suitable title to the story.

It was Mohini's first day at the new school. She was feeling very nervous. She stood in a corner and watched the students who were laughing and talking excitedly. When she saw four senior students advancing towards her, she

[illegible]

[illegible]

Subject: Mathematics

Time:30 Min

Max. Marks: 20

General Instructions:

- 1. All the questions are compulsory.*
 - 2. This question paper consists of 10 questions with 2 marks each.*
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1. Solve the equation:

$$3x - 5 = 5x + 3$$

2. The marks obtained by 7 students in a test are: 10, 11, 12, 15, 14, 13, and 16. Find the mean.

3. Find the square root of 1024 using prime factorization.

4. Find the cube root of 729.

5. Simplify:

$$(2x + 3) (3x^2 - 4x + 5)$$

6. A cylindrical tank has a radius of 1.4 m and a height of 7 m. Find its volume. (Use $\pi = 3.14$).

7. Multiply and simplify:

a) $(5x + 2)(5x - 2)$

b) $(3x - 2)^2$

8. Find the value of :-

a) $3^6 \div 3^4$

b) $2^{-10} \times 2^{-5}$

9. The length of a rectangle is 6 cm more than its width. If the perimeter of the rectangle is 40 cm. Find the length and breadth of the rectangle.

10. If $ab = 6$ and $a + b = 7$ then find the value of $(a^2 + b^2)$.

1- निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए-

4

प्रकृति का संरक्षण मानव का नैतिक कर्तव्य है। वनों की अंधाधुंध कटाई, जलवायु परिवर्तन और प्रदूषण ने पृथ्वी के पारिस्थितिक संतुलन को बिगाड़ दिया है। आधुनिकता की दौड़ में मनुष्य प्राकृतिक संसाधनों का अत्यधिक दोहन कर रहा है। इस दोहन के परिणामस्वरूप अनेक प्राकृतिक आपदाएँ, जैसे - सूखा, बाढ़, और ग्लोबल वॉर्मिंग सामने आ रही हैं। पर्यावरण संतुलन बनाए रखने के लिए वृक्षारोपण, पुनर्चक्रण, और सतत विकास को अपनाना होगा। केवल नारे लगाने से प्रकृति नहीं बचेगी, उसके लिए ठोस कदम उठाने होंगे। प्रकृति को बचाना केवल सरकार का नहीं, प्रत्येक नागरिक का उत्तरदायित्व है।

i- पारिस्थितिक संतुलन बिगड़ने का मुख्य कारण क्या है?

ii- 'सतत विकास' से लेखक का क्या आशय है?

iii- प्राकृतिक आपदाओं का एक प्रमुख कारण क्या बताया गया है?

iv- प्रकृति संरक्षण किसका उत्तरदायित्व है?

2- निर्देशानुसार उपसर्ग-प्रत्यय के पूछे गए प्रश्नों के उत्तर दीजिए-

4

i- 'परामर्श' शब्द में कौन-सा उपसर्ग है।

ii- 'सुन्दरता' शब्द में प्रयुक्त प्रत्यय लिखिए।

iii- 'दुश्चरित्र' शब्द में से उपसर्ग और मूल शब्द अलग-अलग कर लिखिए।

iv- 'लेखक' शब्द में प्रयुक्त प्रत्यय लिखिए।

3- अर्थ के आधार पर पूछे गए प्रश्नों के उत्तर दीजिए-

4

i- परीक्षा कब है? (वाक्य का भेद लिखिए)

ii- कितना सुंदर दृश्य है! (संदेह वाचक वाक्य में परिवर्तित कीजिए)

iii- विधानवाचक वाक्य का एक उदाहरण लिखिए।

iv- मुझसे मिलने पर उसका काम हो जाता। (संकेत वाचक वाक्य में परिवर्तित कीजिए)

4- विद्यार्थी और शिक्षक के बीच समय प्रबंधन विषय पर हुए संवाद को 60 से 80 शब्दों में अपने शब्दों में लिखिए।

4

5- निम्नलिखित विषय पर 60 से 80 शब्दों में एक अनुच्छेद लिखिए।
" मोबाइल का प्रभाव "

4

[illegible]

Subject: Science

Time : 40 Minutes

Max. Marks: 20

Instructions:

- All questions are compulsory.
- Answer neatly and to the point.
- Marks are indicated against each question.

Section A – Multiple Choice Questions ($1 \times 5 = 5$ marks)

1. Which instrument is used to separate white light into seven colours?
a) Mirror
b) Prism
c) Lens
d) Microscope
2. Which of the following is a communicable disease?
a) Diabetes
b) Typhoid
c) Cancer
d) Asthma
3. Which force helps us in walking?
a) Magnetic force
b) Frictional force
c) Muscular force
d) Electrostatic force
4. The smallest unit of matter that retains its identity in a reaction is:
a) Molecule
b) Compound
c) Atom
d) Mixture
5. Which of the following dissolves in water to make an acidic solution?
a) NaCl
b) HCl
c) NaOH
d) Sugar

Section B – ($3 \times 2 = 6$ marks)

6. Define pressure. Write its SI unit.

7. Write two differences between convex and concave lenses.

8. State two uses of microorganisms in food production.

Section C – (3 × 3 = 9 marks)

9. Explain with an example the heating effect of electric current.

10. What is the role of atmosphere in sustaining life on Earth?

11. Write any three differences between solids, liquids, and gases.

SUBJECT :- SOCIAL SCIENCE

Time : 40 Minutes

Max. Marks: 20

1. The Marathas used Guerilla warfare to fight their enemies. 1

2. Which fossil fuel is called “black gold”? 1

OR

What type of resource is soil?

3. What is the minimum age to vote in India? 1

4. Which of the following is a natural factor of production? 1

5. Who succeeded Shivaji as the ruler of the Maratha Empire? 1

6. What is the main role of capital in production?

1

7. What does 'Universal Adult Franchise' mean?

1

8. Match the column:

1

Column –A	Column--B
(a) Raigad	(i) First fort captured by Shivaji at age 16
(b) Purandar Treaty	(ii) Recaptured by Tanaji Malusare
(c) Sinhagad	(iii) Capital of Maratha Empire
(d) Torna Fort	(iv) Treaty between Shivaji and Jai Singh(1665)

9. What was the importance of forts in Shivaji's empire?

3

OR

Describe the relationship between Shivaji and the Mughals.

10.A. What are the four factors of production? Explain briefly.

3

OR

What do you understand by free and fair election?

11. Mention three differences between biotic and abiotic resources.

3

12. How does labour contribute to the process of production?

3