Savitribai Phule Pune University Interdisciplinary School of Science

## B.Sc. Blended

## I. Syllabus of the Online Entrance Examination for B.Sc. Blended

The Multiple Choice Question based Online Entrance Exam for the B. Sc. Blended will bebased on the syllabus of Physics, Chemistry, Biology and Mathematics at the H.S.C/12th Std. examination (Maharashtra Board and CBSE).

## II. Sample Questions for Online Entrance Examination for B. Sc. Blended

The Online Entrance Examination for B. Sc. Blended consists of two sections: A and B. The Section A which is for 20 marks focuses on logic, comprehension, numerical ability, English grammar, vocabulary and general aptitude whereas Section B which is for 80 marks focuses on the syllabus described above. The OEE is based on multiple choice question format and follows a negative marking system. The OEE is for 1 hour duration. The details about number of questions, marks per questions, negative marks per wrong answer etc. will be given on the OEE paper. Following are few sample questions for Sec A and Sec B

## Sect A: General Aptitude, Logic, Comprehension, Numerical Ability, Grammar \& Vocabulary

|  |  |
| :--- | :--- |
| Question | Arrange the following words in alphabetical order and identify the last but one <br> word: <br> Labyrinth, Liberal, Libel, Laboratory, Library |
| A | Labyrinth |
| B | Libel |
| C | Library |
| D | Liberal |
| Answer | D |
| Marks | 2 |
| Question | If Cricket is called as Hockey, Hockey is termed as Football, Football is called as <br> Tennis and Tennis is regarded as Basketball then in which sports you will come <br> across the term 'Header'? |
| A | Hockey |


| B | Football |
| :--- | :--- |
| C | Tennis |
| D | Cricket |
| Answer | C |
| Marks | 2 |
| Question | If India's Independence Day, Republic Day, Martyr's Day and Labour Day (Shramik <br> Din) are arranged in reverse order of their occurrence according to Gregorian <br> calendar, then which would be the last one? |
| A | Independence Day |
| B | Republic Day |
| C | Martyr's Day |
| D | Labour Day (Shramik Din) |
| Answer | B |
| Marks | 2 |
| Question | Which of the following diagram visually reflects the logical relationship between <br> Humans, Men and Fathers |
| Answer | C |
| Marks | 2 |
| Question | In a row of 29 people, Virat is fifth from the left end and Jaspreet is fifth from the <br> right end. Mahi is standing between Virat and Jaspreet at such a position that <br> equal number of people are between him and Virat and him and Jaspreet. At <br> what position is Mahi standing from the left end? |
| C | 13 |
| D | 15 |


| A |  |
| :---: | :---: |
| B | $\bigcirc+\bigcirc=\bigcap$ |
| C |  |
| D |  |
| Answer | A |
| Marks | 2 |
| Question | Which of the following represents the relations as between 'chalk: blackboard' ? |
| A | Computer Screen: Hard disc |
| B | Computer: Motherboard |
| C | Keyboard: Comuter Screen |
| D | Computer Mouse: Operating system |
| Answer | C |
| Marks | 2 |

Sec B: Subject Specific Questions (Refer Syllabus Given)

|  |  |
| :--- | :--- |
| Question | Which one of the following is not covered with epithelial tissue |
| A | Blood vessels |
| B | Digestive gland |


| C | Skin |
| :---: | :---: |
| D | Cartilage |
| Answer | C |
| Marks | 2 |
| Question | A zygote which has an X-chromosome inherited from the father will develop into a...... |
| A | Boy |
| B | Girl |
| C | X chromosome does not determine the sex of a child |
| D | Either girl or a boy |
| Answer | B |
| Marks | 2 |
| Question | If the fossil of an organism is found in the deeper layers of earth, then we can predict that |
| A | The extinction of organism has occurred recently |
| B | The extinction of organism has occurred thousands of years ago |
| C | The fossil position in the layers of earth is not related to its time of extinction |
| D | Time of extinction cannot be determined |
| Answer | B |
| Marks | 2 |
| Question | The symbol of the element whose atoms have the outermost electronic configuration $2 \mathrm{~S} 2,2 \mathrm{P3}$ is |
| A | N |
| B | Li |
| C | P |
| D | Na |
| Answer | A |


| Marks | 2 |
| :---: | :---: |
| Question | Consider the following reaction $5 \mathrm{H} 2 \mathrm{O} 2+\mathrm{x} \mathrm{ClO} 2+2 \mathrm{OH}-\quad x \mathrm{Cl}-+\mathrm{y} \mathrm{O} 2+6 \mathrm{H} 2 \mathrm{O}$ <br> The reaction is balanced of |
| A | $x=5, y=2$ |
| B | $\mathrm{x}=2, \mathrm{y}=5$ |
| C | $x=4, y=10$ |
| D | $x=5, y=5$ |
| Answer | B |
| Marks | 2 |
| Question | The phenomenon of radioactivity was discovered by |
| A | Madam Curie |
| B | Ernest Rutherford |
| C | Henry Becquerel |
| D | J. J. Thomson |
| Answer | C |
| Marks | 2 |
| Question | Identify the circuit (fig.1) in which the electrical components have been properly connected. <br> ti <br> 0 |
| A | (i) |


| B | (ii) |
| :---: | :---: |
| C | (iii) |
| D | (iv) |
| Answer | B |
| Marks | 2 |
| Unit | Set_2 |
| Question | The most important safety method used for protecting home appliances from short circuiting or overloading is |
| A | Earthing |
| B | Use of fuse |
| C | Use of stabilizers |
| D | Use of electric meter |
| Answer | B |
| Marks | 2 |
| Question | A full length image of a distant tall building can definitely be seen by using |
| A | a concave mirror |
| B | a convex mirror |
| C | a plane mirror |
| D | both concave as well as plane mirror |
| Answer | B |
| Marks | 2 |
| Question | The weight of an object at the centre of the earth of radius $R$ is |
| A | Zero |
| B | Infinite |
| C | $R$ times the weight at the surface of the earth |
| D | $1 / R 2$ times the weight at surface of the earth |
| Answer | A |


| Marks | 2 |
| :---: | :---: |
| Question | Where does fertilization occurs in the female? |
| A | Fallopian tube |
| B | Uterus |
| C | Cervix |
| D | Vagina |
| Answer | A |
| Marks | 2 |
| Question | The photoelectric effect was explained by Albert Einstein by assuming that: |
| A | light is a wave. |
| B | light is a particle. |
| C | an electron behaves as a wave. |
| D | an electron behaves as a particle |
| Answer | B |
| Marks | 2 |
| Unit | Set_1 |
| Question | The difference between the polar to equatorial radius is____ |
| A | 21 km |
| B | 63 km |
| C | 42 km |
| D | 10 km |
| Answer | A |
| Marks | 2 |
| Question | Which one of the following diseases is not due to contaminated water |
| A | Hepatitis B |
| B | Jaundice |


| C | Cholera |
| :--- | :--- |
| D | Typhoid |
| Answer | A |
| Marks | 2 |
|  |  |
| Question | The sum of the numbers 436.32, 227.2 and 0.301 in appropriate significant figures <br> is |
| A | 663.82 |
| B | 664 |
| C | 663.8 |
| D | 663.82 |
| Answer | B |
| Marks | 2 |
|  | Ftainless steel contains |
| Question | $\mathrm{Fe}, \mathrm{Cr}, \mathrm{Cu}$ |
| A | $\mathrm{Fe}, \mathrm{C}, \mathrm{Ni}$ |
| B | $\mathrm{Fe}, \mathrm{Cr}, \mathrm{Ni}$ |
| C | $\mathrm{Fe}, \mathrm{Ni}, \mathrm{Cu}$ |
| D | C |
| Answer | Marks |

