## GRADE - VIII MODEL PAPER 2017

## SCIENCE

## Section A: Multiple Choice Questions Marks: 40 Time: 50 Minutes

| Roll No |  |  |  |  |  |  |
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| Q. 2 | Choose the correct sentence. | 1. (A) (B) (C) (D) |
|  | A. She written a letter. | 2. (A) B ${ }^{\text {a }}$ (D) |
|  | B. She is write a letter. | 3. (A) (B) (C) (D) |
|  | C. Sthe wrote a letter. | 4. (A) (B) (C) (D) |
|  | D. She is written a letter. | C- |

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| Q1. | Which of the following parts of the brain changes the size of the pupil to control the amount of light entering the eye? <br> A. Cerebrum <br> B. Cerebellum <br> C. Mid brain <br> D. Medulla oblongata | Q2. | All of the following are main organs of excretory system EXCEPT: <br> A. Ureter <br> B. Urethra <br> C. Gall bladder <br> D. Urinary bladder |
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| Q3. | The medical technique which is used as a treatment by doctors in case of kidney failure is <br> A. lithotripsy. <br> B. transplant. <br> C. dialysis. <br> D. ultrasound. | Q4. | Which of the following is correct about meiosis? <br> A. It occurs in somatic cells. <br> B. Two daughter cells are formed. <br> C. Daughter cells have a complete set of chromosomes. <br> D. The number of chromosomes is reduced to half. |
| Q5. | The number of daughter cells formed at the end of mitosis is <br> A. 2 . <br> B. 4 . <br> C. 6 . <br> D. 8 . | Q6. | In the given diagram the arrow indicates <br> A. vacuole. <br> B. ribosome. <br> C. chromosome. <br> D. cell membrane. |
| Q7. | Which of the following is involved in the transference of characters from parents to children? <br> A. Cell membrane <br> B. Vacuole <br> C. Nucleus <br> D. Ribosomes | Q8. | Restriction enzymes are used in biotechnology to <br> A. cut the gene. <br> B. bind the gene. <br> C. make the gene. <br> D. destroy the gene. |


| Q9. | Biotechnology is used in all of the following fields EXCEPT: <br> A. Production of vaccines <br> B. Recycling of waste products <br> C. Synthesis of inorganic compounds <br> D. Increasing nutritional value of food | Q10. | A genetically modified cow can produce more <br> A. quantity of milk. <br> B. solid waste. <br> C. identical offspring. <br> D. oxygen gas. |
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| Q11. | Which of the following air pollutants is a major cause of breakdown of the ozone layer? <br> A. $\mathrm{O}_{2}$ <br> B. $\mathrm{SO}_{2}$ <br> C. CFCs <br> D. $\mathrm{NO}_{2}$ | Q12. | Carbon monoxide is responsible to cause <br> A. loss of speech. <br> B. decreased hearing. <br> C. increased muscular coordination. <br> D. loss of vision. |
| Q13. | Which of the following traps the rays of the sun and keep our earth warm? <br> A. Ozone layer <br> B. Acid rain <br> C. Deforestation <br> D. Greenhouse effect | Q14. | Which of the following can cause skin cancer on exposure? <br> A. Infrared <br> B. X-rays <br> C. Ultraviolet rays <br> D. CFCs |
| Q15. | Which of the following chemical reactions takes place inside the human body? <br> A. Photosynthesis <br> B. Respiration <br> C. Formation of $\mathrm{CaCO}_{3}$ <br> D. Formation of CaO | Q16. | Which of the following is a balanced chemical equation? <br> A. $4 \mathrm{H}_{2} \mathrm{~S}_{(\mathrm{g})}+2 \mathrm{SO}_{2(\mathrm{~g})} \rightarrow 3 \mathrm{H}_{2} \mathrm{O}_{(\mathrm{l})}+3 \mathrm{~S}_{(\mathrm{s})}$ <br> B. $2 \mathrm{H}_{2} \mathrm{~S}_{(\mathrm{g})}+\mathrm{SO}_{2(\mathrm{~g})} \rightarrow 2 \mathrm{H}_{2} \mathrm{O}_{(\mathrm{l})}+3 \mathrm{~S}_{(\mathrm{s})}$ <br> C. $\mathrm{H}_{2} \mathrm{~S}_{(\mathrm{g})}^{( }+2 \mathrm{SO}_{2(\mathrm{~g})} \rightarrow 2 \mathrm{H}_{2} \mathrm{O}_{(\mathrm{l})}+\mathrm{S}_{(\mathrm{s})}$ <br> D. $2 \mathrm{H}_{2} \mathrm{~S}_{(\mathrm{g})}+\mathrm{SO}_{2(\mathrm{~g})} \rightarrow 2 \mathrm{H}_{2} \mathrm{O}_{(\mathrm{l})}+\mathrm{S}_{(\mathrm{s})}$ |
| Q17. | $2 \mathrm{Na}+\mathrm{Cl}_{2} \rightarrow 2 \mathrm{NaCl}$ <br> The state of $\mathrm{Cl}_{2}$ and NaCl in the given chemical reaction is <br> A. gas and solid. <br> B. liquid and liquid. <br> C. solid and liquid. <br> D. liquid and gas. | Q18. | $\mathrm{CaCO}_{3} \xrightarrow{\text { heat }} \mathrm{CO}_{2}+\mathrm{CaO}_{(\mathrm{s})}$ <br> The given reaction is an example of <br> A. an addition reaction. <br> B. a decomposition reaction. <br> C. a physical reaction. <br> D. a neutralization reaction. |
| Q19. | $\mathrm{HCl}+\mathrm{NaOH} \rightarrow \mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}$ <br> In the given reaction, the products are <br> A. acid and alkali. <br> B. alkali and water. <br> C. salt and acid. <br> D. salt and water. | Q20. | When methyl orange is added to vinegar, the colour of the vinegar changes to <br> A. red. <br> B. pink. <br> C. yellow. <br> D. blue. |


| Q21. | The unit of pressure is <br> A. Newton. <br> B. Pascal. <br> C. Candela. <br> D. Ampere. | Q22. | When the piston is pushed downward as shown in the figure, the water flows out with high pressure from <br> A. hole A. <br> B. hole B. <br> C. hole C. <br> D. all holes. |
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| Q23. | According to Boyle's law if the pressure of a gas is doubled, then its volume becomes <br> A. doubled. <br> B. one half. <br> C. quarter. <br> D. remains same. | Q24. | Candela is the unit of <br> A. temperature. <br> B. electric current. <br> C. intensity of light. <br> D. amount of a substance. |
| Q25. | 2 kilogram is equal to <br> A. 0.2 grams <br> B. 20 grams <br> C. 200 grams <br> D. 2000 grams | Q26. | Which of the following instruments can be used to find out height of a piece of chalk? <br> A. <br> B. <br> C. <br> D. |
| Q27. | Thermal expansion of solids results in an increase in all of the following EXCEPT: <br> A. Length of the solid <br> B. Area of the solid <br> C. Volume of the solid <br> D. Density of the solid | Q28. | In winter, water pipes burst due to <br> A. expansion of water. <br> B. contraction of water. <br> C. expansion of pipes. <br> D. contraction of pipes. |
| Q29. | Provision of gaps between railway tracks is made to avoid damages caused by <br> A. thermal expansion. <br> B. thermal contraction. <br> C. force of friction. <br> D. force of gravity. | Q30. | Overhead telephone cables between two poles are given a certain amount of sag, so that they cannot break in cold weather due to <br> A. pressure. <br> B. contraction. <br> C. expansion. <br> D. elasticity. |


| Q31. | Which of the following is correct for convex lenses? <br> A. Thicker from the edges <br> B. Converge light rays <br> C. Diverge light rays <br> D. Partially silvered | Q32. | When an object is placed in front of convex lens between $F$ and $2 F$, the image formed will be <br> A. real, inverted and equal in size. <br> B. real, inverted and larger in size. <br> C. real, inverted and smaller in size. <br> D. virtual, erect and magnified. |
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| Q33. | The types of lens used in the overhead projector are <br> A. biconcave and biconvex. <br> B. concavo-convex and convexoconcave. <br> C. plano convex and plano concave. <br> D. double convex lens and double concave lens. | Q34. | The part of the camera which works like pupil of the human eye is <br> A. lens. <br> B. shutter. <br> C. film. <br> D. mirror. |
| Q35. | Dynamo is a device of producing <br> A. mechanical energy. <br> B. electrical energy. <br> C. solar energy. <br> D. nuclear energy. | Q36. | Generator is a device that converts mechanical energy into <br> A. chemical energy. <br> B. thermal energy. <br> C. electrical energy. <br> D. kinetic energy. |
| Q37. | Which of the following devices is used to store electric charges? <br> A. Resistor <br> B. Capacitor <br> C. Transistor <br> D. Diode | Q38. | Which of the following makes it easy for men to survive in space? <br> A. High temperature <br> B. Zero gravity <br> C. Space suit <br> D. Zero pressure |
| Q39. | Spacecraft is protected from the effects of fog by using <br> A. liquid-cooled garments. <br> B. anti-corrosion coatings. <br> C. sensor. <br> D. apollo. | Q40 | Which of the following space technologies provides better images for X-rays? <br> A. Archaeology <br> B. Vision research <br> C. Active Pixel Sensor <br> D. Global Positioning Satellites |

## GRADE - VIII MODEL PAPER 2017

SCIENCE

| Section B: Constructed Response Questions <br> Time: $\mathbf{2}$ hours 10 minutes $\quad$ Marks: 60 | Roll <br> No. |  |  |  |  |  |  |
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Q1. Classify the following actions as voluntary or involuntary action. (Total 6 Marks)
writing, reading, inhaling, speaking, eye blinking, walking

| Voluntary Action | Involuntary Action |
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Q2.
(Total 6 Marks)
a. Define biotechnology.
b. Ibad is a tall, fair boy with blue eyes. He is very good in sports and is very intelligent. Which of the above characteristics has Ibad acquired from his parents?
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Qu.
(Total 6 Marks)
a. Name TWO pollutants that can cause acid rain. Which acids are formed during acid rain?(4 Marks)
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$\qquad$
$\qquad$
$\qquad$
b. Name TWO sources which add sulphur dioxide in the atmosphere.

Q4.
(Total 6 Marks)
Differentiate between exothermic and endothermic reactions. Give at least THREE points.

| Exothermic Reaction | Endothermic Reaction |
| :--- | :--- |
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Q5.
(Total 6 Marks)
a. Give THREE uses of acids from daily life.
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Q6.
(Total 6 Marks)
a. What are prefixes?
b. Convert
i. 1 millisecond to second
$\qquad$
$\qquad$
ii. $\quad 1 \mathrm{~m}$ to cm
$\qquad$
$\qquad$
c. Complete the following by using prefixes.
i. $\quad 10^{-6} \mathrm{gm}=$ $\qquad$
ii. $\quad 10^{-3} \mathrm{gm}=$ $\qquad$
iii. $\quad 10^{3} \mathrm{gm}=$ $\qquad$

Q7.
(Total 6 Marks)
Write THREE disadvantages of thermal expansion in solids i.e. bridges, roads and railway tracks. Suggest ONE way in each case to overcome the problem.
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$\qquad$

Q8.
(Total 6 Marks)
a. What defect occurs in the eye of a person in case of short-sightedness?
$\qquad$
$\qquad$
$\qquad$
b. How can short sightedness be corrected? Elaborate with diagram.

Space for diagram

Q9.
(Total 6 Marks)
a. Name the principle on which the A.C. generator works.
(1 Mark)
$\qquad$

c. How does an A.C. generator produce current?
(3 Marks)
$\qquad$
$\qquad$
$\qquad$

Q10.
(Total 6 Marks)
State any FOUR benefits caused by the technology of the space exploration. Describe any TWO of them.
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$\qquad$ 10 \&

