MSSE MODEL PAPER 2019
SCIENCE

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

Roll No

سوالیہ پرچہ

Q.2 Choose the correct sentence.
A. She written a letter.
B. She is write a letter.
C. She wrote a letter.
D. She is written a letter.
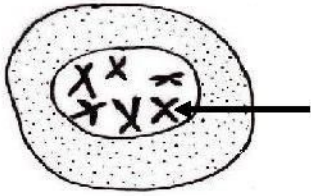
جوابی پرچہ
1. Ⓐ Ⓑ Ⓒ Ⓓ
2. Ⓐ Ⓑ ● Ⓓ
3. Ⓐ Ⓑ Ⓒ Ⓓ
4. Ⓐ Ⓑ Ⓒ Ⓓ

اوپری دی گئی مثال میں سوال نمبر 2 کا درست جواب C ہے جس کے لئے جوابی
پرچے میں سوال نمبر 2 کے سامنے C کا دائرہ سیاہ رنگ سے بھرا ہوا ہے۔

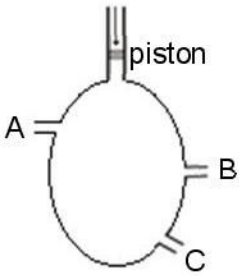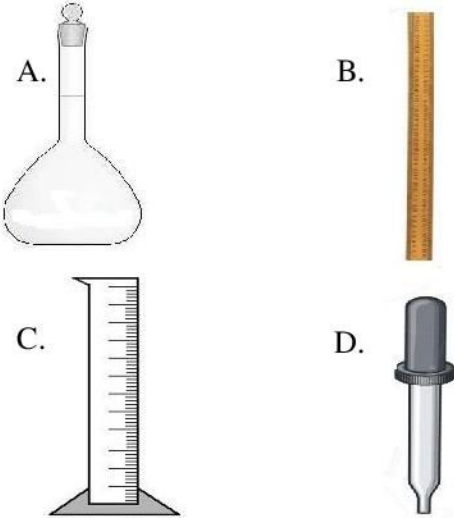|			
Q1.	Which of the following parts of the brain changes the size of the pupil to control the amount of light entering the eye? A. Cerebrum B. Cerebellum C. Mid brain D. Medulla oblongata	**Q2.**	All of the following are main organs of excretory system EXCEPT: A. Ureter B. Urethra C. Gall bladder D.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

Q9.	Biotechnology is used in all of the following fields EXCEPT: A. Production of vaccines B. Recycling of waste products C. Synthesis of inorganic compounds D. Increasing nutritional value of food	Q10.	A genetically modified cow can produce more A. quantity of milk. B. solid waste. C. identical offspring. D. oxygen gas.
Q11.	Which of the following air pollutants is a major cause of breakdown of the ozone layer? A. O_2 B. SO_2 C. CFCs D. NO_2	Q12.	Carbon monoxide is responsible to cause A. loss of speech. B. decreased hearing. C. increased muscular coordination. D. loss of vision.
Q13.	Which of the following traps the rays of the sun and keep our earth warm? A. Ozone layer B. Acid rain C. Deforestation D. Greenhouse effect	Q14.	Which of the following can cause skin cancer on exposure? A. Infrared B. X-rays C. Ultraviolet rays D. CFCs
Q15.	Which of the following chemical reactions takes place inside the human body? A. Photosynthesis B. Respiration C. Formation of $CaCO_3$ D. Formation of CaO	Q16.	Which of the following is a balanced chemical equation? A. $4H_2S_{(g)} + 2SO_{2(g)} \rightarrow 3H_2O_{(l)} + 3S_{(s)}$ B. $2H_2S_{(g)} + SO_{2(g)} \rightarrow 2H_2O_{(l)} + 3S_{(s)}$ C. $H_2S_{(g)} + 2SO_{2(g)} \rightarrow 2H_2O_{(l)} + S_{(s)}$ D. $2H_2S_{(g)} + SO_{2(g)} \rightarrow 2H_2O_{(l)} + S_{(s)}$
Q17.	$2Na + Cl_2 \rightarrow 2NaCl$ The state of Cl_2 and NaCl in the given chemical reaction is A. gas and solid. B. liquid and liquid. C. solid and liquid. D. liquid and gas.	Q18.	$$CaCO_3 \xrightarrow{heat} CO_2 + CaO_{(s)}$$ The given reaction is an example of A. an addition reaction. B. a decomposition reaction. C. a physical reaction. D. a neutralization reaction.
Q19.	$HCl + NaOH \rightarrow NaCl + H_2O$ In the given reaction, the products are A. acid and alkali. B. alkali and water. C. salt and acid. D. salt and water.	Q20.	When methyl orange is added to vinegar, the colour of the vinegar changes to A. red. B. pink. C. yellow. D. blue.

Q21.	The unit of pressure is A. Newton. B. Pascal. C. Candela. D. Ampere.	Q22.	When the piston is pushed downward as shown in the figure, the water flows out with high pressure from A. hole A. B. hole B. C. hole C. D. all holes.
Q23.	According to Boyle's law if the pressure of a gas is doubled, then its volume becomes A. doubled. B. one half. C. quarter. D. remains same.	Q24.	Candela is the unit of A. temperature. B. electric current. C. intensity of light. D. amount of a substance.
Q25.	2 kilogram is equal to A. 0.2 grams B. 20 grams C. 200 grams D. 2000 grams	Q26.	Which of the following instruments can be used to find out height of a piece of chalk? A. B. C. D.
Q27.	Thermal expansion of solids results in an increase in all of the following EXCEPT: A. Length of the solid B. Area of the solid C. Volume of the solid D. Density of the solid	Q28.	In winter, water pipes burst due to A. expansion of water. B. contraction of water. C. expansion of pipes. D. contraction of pipes.
Q29.	Provision of gaps between railway tracks is made to avoid damages caused by A. thermal expansion. B. thermal contraction. C. force of friction. 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 A. pressure. B. contraction. C. expansion. D. elasticity.

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

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Section B: Constructed Response Questions	Roll No.					
Time: 2 hours 10 minutes Marks: 60						

هدایات:

1. ہر سوال کا جواب دینا ضروری ہے۔   2. جواب دینے سے پہلے سوال کو غور سے پڑھیں۔   3. سوال کا جواب وہی جگہ پر تحریر کریں۔

Q1. Classify the following actions as voluntary or involuntary action.   **(Total 6 Marks)**

writing, reading, inhaling, speaking, eye blinking, walking

Voluntary Action	Involuntary Action

Q2.   **(Total 6 Marks)**

a. Define biotechnology.   (2 Marks)

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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?   (4 Marks)

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Q3.   **(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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b.   Name TWO sources which add sulphur dioxide in the atmosphere.   (2 Marks)

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Q4.   **(Total 6 Marks)**

Differentiate between exothermic and endothermic reactions. Give at least THREE points.

Exothermic Reaction	Endothermic Reaction

Q5.   **(Total 6 Marks)**

a.   Give THREE uses of acids from daily life.   (3 Marks)

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b.   Describe how an aerosol works.   (3 Marks)

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Q6.   **(Total 6 Marks)**

a.   What are prefixes?   (1 Mark)

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b.   Convert   (2 Marks)

    i.   1 millisecond to second

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    ii.   1 m to cm

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c.   Complete the following by using prefixes.   (3 Marks)

    i. 10^{-6} gm = _____

    ii. 10^{-3} gm= _____

    iii. 10^{3} gm = _____

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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Q8.   (Total 6 Marks)
a.   What defect occurs in the eye of a person in case of short-sightedness?   (3 Marks)

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b.   How can short sightedness be corrected? Elaborate with diagram.   (3 Marks)

Space for diagram

Q9.   **(Total 6 Marks)**

a.   Name the principle on which the A.C. generator works.   (1 Mark)

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b.   Name FOUR parts of a generator.   (2 Marks)

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

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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