

**Faculty of Food Science & Technology**  
**BFST 1<sup>st</sup> Year 1<sup>st</sup> Semester Final Examination, 2022**  
**Course Title: Human Biology (Theory)**  
**Course Code: HBL-101**

**Full Marks: 70**

**Time: 3 Hours**

(Figures in the right margin indicate full marks. Answer **four (4)** questions from each section where question number **1 and 6** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together.)

**SECTION-A**

1. "Cells are the basic unit of life"-justify the statement. 5
  
2. a) Differentiate between prokaryotic and eukaryotic cell. 4  
b) Sketch a flow chart for the component of cell. 3  
c) Write down the functions of nucleus and mitochondria. 3
  
3. a) List the name of different parts of heart. How heart act as a pump in the circulatory system? 2+3=5  
b) Describe the composition of blood. 5
  
4. a) Define digestion and absorption. What are the steps involved in fat digestion and absorption? 2+5=7  
b) Distinguish the concept of hormones, receptors and target cells. 3
  
5. a) Draw and label the structure of skeletal muscle. 3  
b) Explain the muscle contraction and relaxation process. 5  
c) Differentiate extracellular fluid and intracellular fluid. 2

**SECTION-B**

6. a) Define homeostasis. Explain the negative and positive feedback control. 1+4=5
  
7. a) What do you mean by glomerular filtration rate? Enlist the factors that affect the glomerular filtration rate. 1+2=3  
b) Draw and label the different parts of a typical nephron. 3  
c) Write down the mechanism of urine formation. 4
  
8. a) Define respiration. Enlist the organ of respiratory system. 1+1=2  
b) Illustrate the transportation system of O<sub>2</sub> from air to cell of the body. 4  
c) Write down the functions of pancreatic juice and gastric juice. 4
  
9. a) Mention the physiological functions of erythrocytes, neutrophils, and lymphocytes. 3  
b) Summarize the blood coagulation mechanism. 4  
c) Explain the Baroreceptor feedback mechanism of blood pressure regulation. 3
  
10. a) Enlist the digestive juice with their daily secretion. 3  
b) Mention the different types of gastrointestinal hormones with examples. 2  
c) Illustrate the digestion and absorption system of protein. 5

Full Marks: 70

Time: 3 Hours

(Figures in the right margin indicate full marks. Answer five (5) questions from each section. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

1. a) Define conjugate of a matrix and skew Hermitian matrix with examples. 2
- b) Show that  $A = \frac{1}{3} \begin{bmatrix} 1 & 2 & -2 \\ 2 & 1 & 2 \\ -2 & 2 & 1 \end{bmatrix}$  is orthogonal. 5
2. a) Define a system of linear equations. For which value of the constant  $k$  does the following system have infinitely many solutions? Explain your reasoning. 1+2=3
- $$\begin{aligned}x - y &= 3 \\ 2x - 2y &= k\end{aligned}$$
- b) Solve the following system by Gaussian elimination. 4
- $$\begin{aligned}x + y + 2z &= 9 \\ 2x + 4y - 3z &= 1 \\ 3x + 6y - 5z &= 0\end{aligned}$$
3. a) What is Linear Programming Problem? Discuss the graphic method to solve a Linear Programming Problem. 1+2=3
- b) Find the values of  $x_1$  and  $x_2$  that maximize 4
- $$z = x_1 + 3x_2$$
- Subject to
- $$\begin{aligned}2x_1 + 3x_2 &\leq 24 \\ x_1 - x_2 &\leq 7 \\ x_2 &\leq 6 \\ x_1 &\geq 0 \\ x_2 &\geq 0\end{aligned}$$
4. a) Define a function. Mention the four common methods for representing a function. 1+1=2
- b) Find the domain and range of 2.5×2=5
- i)  $f(x) = \sqrt{x^2 - 4x + 3}$
- ii)  $f(x) = 2 + \sqrt{x - 1}$
5. a) Sketch the graph of the function 2
- $$y = x^2 - 4x + 5$$
- b) A closed cylindrical can is to hold 1 litre (1000 cm<sup>3</sup>) of liquid. How should we choose the height and radius to minimize the amount of material needed to manufacture the can? 5
6. a) Consider a function  $f(x) = 3x^4 + 4x^3 - 12x^2 + 2$  3+2+2=7
- Use the first and second derivatives of  $f$
- i) To determine the intervals on which  $f$  is increasing, decreasing, concave up and concave down.
- ii) Locate all stationary points and inflection points, and confirm that your conclusions are consistent with the graph.
- iii) Find the relative extrema of the function.

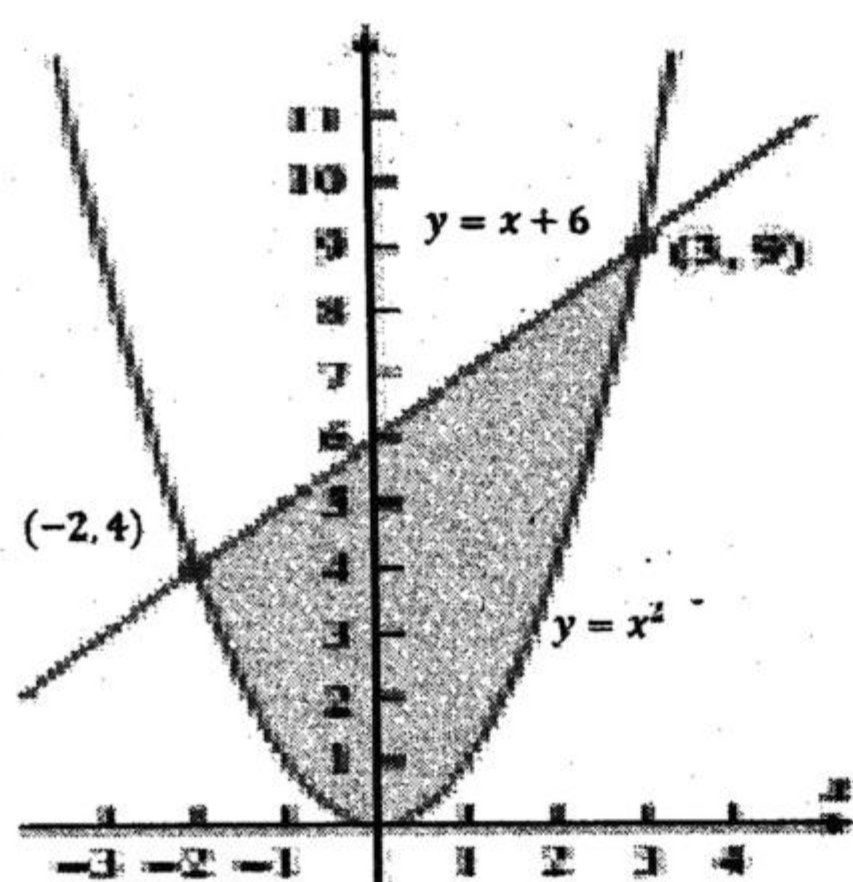
## SECTION-B

7. a) Define revenue function and profit function. 1  
 b) The demand for  $x$  units of a product is related to a selling price of  $M$  Tk. per unit 2×3=6  
 by the equation  $2x + M^2 - 12000 = 0$ .  
 i) Find the demand function, the marginal demand function, the revenue function and the marginal revenue function.  
 ii) Find the number of units and the price per unit that yield the maximum revenue.  
 iii) Find the maximum revenue.

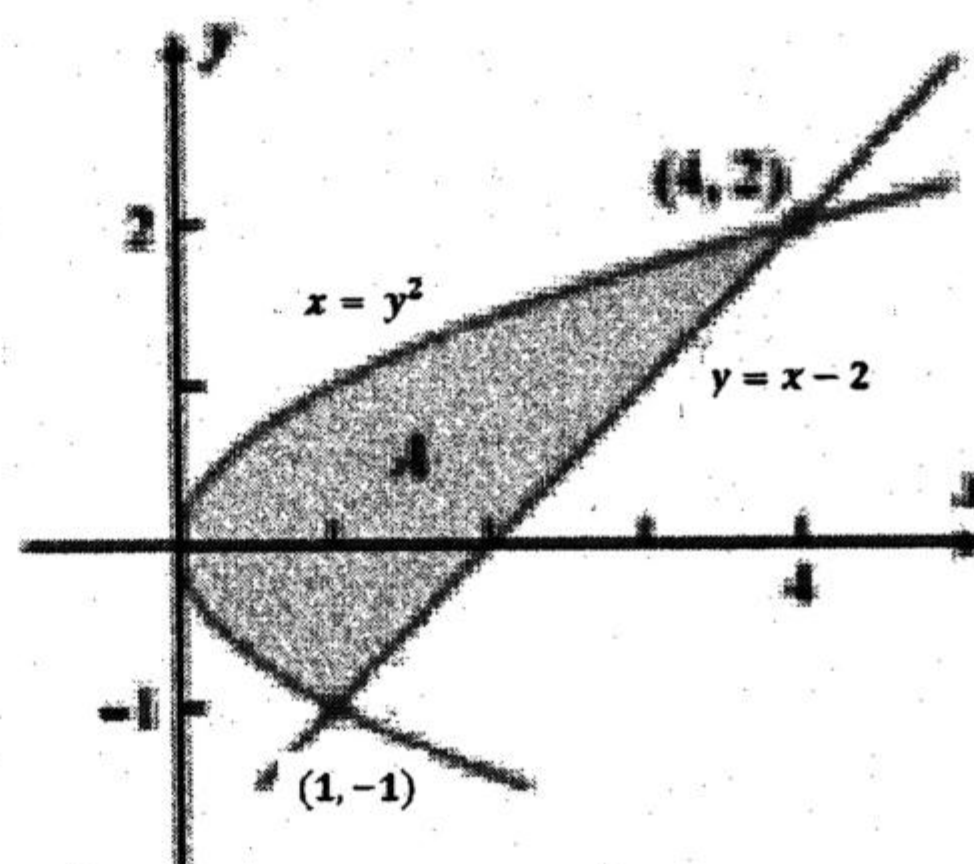
8. a) Define antiderivative of a function. Mention the methods to find the area  $A$  that 1+2=3  
 gives the area between the graph of a specified function  $f$  and the interval  $[a, b]$ .  
 b) Suppose that a particle moves with velocity  $v(t) = \cos \pi t$  along a co-ordinate line. 4  
 If the particle has co-ordinate  $S=4$  at time  $t=0$ , then find its position vector.

9. Find the area of the shaded region. 3.5×2=7

i)



ii)



10. a) What do you mean by a solid of revolution? Give example. 2  
 b) Find the volume of the solid generated when the region between the graphs of the 5  
 equations  $f(x) = \frac{1}{2} + x^2$  and  $g(x) = x$  over the interval  $[0, 2]$  is revolved about  
 the  $x$ -axis.

11. a) Find the area bounded by the curve  $y^2 = 4 - x$  and  $x$ -axis. 3  
 b) Use the theorem of Pythagoras to find the length of the line segment  $y = 2x$  from 4  
 $(1, 2)$  to  $(2, 4)$  and confirm that the value is consistent with the length computed

using the formula 
$$L = \int_a^b \sqrt{1 + [f'(x)]^2} dx$$

12. a) Show that the equation  $x^2 + 2hxy \cot 2\alpha - y^2 = 0$  represent two straight 4  
 lines. Find their equations, points of intersection and the angle between  
 them.  
 b) Find the equation of the plane through the points  $(2, 3, 1)$ ,  $(1, 1, 3)$  and  $(2, 2, 3)$ . 3

**Chattogram Veterinary and Animal Sciences University**  
**Faculty of Food Science & Technology**  
**BFST 1<sup>st</sup> Year 1<sup>st</sup> Semester Final Examination, 2022**  
**Course Title: Introductory Human Nutrition (Theory)**  
**Course Code: IHN-101**

**Full Marks: 70**

**Time: 3 Hours**

(Figures in the right margin indicate full marks. Answer four (4) questions from each section where question number 1 and 6 are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together.)

**SECTION-A**

- |    |   |       |
|----|---|-------|
| 1. | How does maternal micronutrient malnutrition effects on infant growth and development?                      | 5     |
| 2. | a) Why colostrum is yellow? List out the antimicrobial peptides present in colostrum.                       | 1+2=3 |
|    | b) How will you take care of a baby weighing 1.2 kg at birth?   | 5     |
|    | c) Why extra nutrient required during lactation period?   | 2     |
| 3. | a) What is exclusive breastfeeding? What is the compositional variation between breast milk and cow's milk? | 1+3=4 |
|    | b) Define hidden hunger. Explain the eating disorders of adolescent's girls.                                | 1+4=5 |
|    | c) Why protein energy malnutrition is common among infants?   | 1     |
| 4. | a) Who is the father of human nutrition? Define nutrition and nutrients.                                    | 1+2=3 |
|    | b) Illustrate about the problems during pregnancy.  | 4     |
|    | c) Mention the differentiate between human growth and development.  | 3     |
| 5. | a) Define low birth weight (LBW) and classify LBW.  | 1+2=3 |
|    | b) Enlist the causes of LBW.  | 4     |
|    | c) What is aging? How do you modify elderly people's diet?  | 3     |

**SECTION-B**

- |     |   |         |
|-----|---|---------|
| 6.  | Why complementary feeding is important? What are the criteria of complementary food?                                    | 3+2=5   |
| 7.  | a) Why weaning is important? Write down the advantages and disadvantages of weaning.                                    | 1+3=4   |
|     | b) Write down the stages of weaning.  | 2       |
|     | c) Explain the nutritional requirements during pregnancy.   | 4       |
| 8.  | a) What are the factors need to be considered in planning packed lunch for school going children?                       | 2       |
|     | b) Explain the major physiological changes occurred during pregnancy.   | 4       |
|     | c) Illustrate different physiological changes occurred during adolescent period.  | 4       |
| 9.  | a) Define balanced diet. What are the importance and requirements of balanced diet? Indicate the different food groups. |         |
|     | b) What is body mass index (BMI)? Enlist the indicators to diagnose a good health.                                      | 1+3=4   |
| 10. | a) Define health.   | 1       |
|     | b) How will you measure the nutritional status of geriatric people?   | 3       |
|     | c) Write down the short note on: answer any 3 (three)   | 2 X 3=6 |
|     | i) Responsive feeding ii) PEM iii) Classify nutrients iv) Types of supplementary feeding                                |         |

**Chattogram Veterinary and Animal Sciences University**  
**Faculty of Food Science and Technology**  
**BFST 1<sup>st</sup> year 1<sup>st</sup> Semester Final Examination, 2022**  
**Subject: Inorganic Chemistry (Theory)**  
**Course Code: ICM-101(T)**

**Full Marks: 35**

**Time: 2 hours**

(Figures in the right margin indicate full marks. Answer any 04 (four) questions from each section, where 1 and 6 are compulsory. Use separate answer script for each section. Split answers are strongly discouraged. Fractions of the questions must be answered together.)

**Section-A**

1. a) Explain with examples Lewis concept of acids and bases. 2  
b) The hydrogen ion concentration of a fruit juice is  $3.3 \times 10^{-2}$  M. What is the pH of the juice? Is it acidic or basic? 3
2. a) What is atom? Mention the cathode ray experiment and properties of cathode rays. 5  
b) List down the postulate of Bohr's atomic model and mention quantum numbers required to specify the character of electron. 5
3. a) Define the following terms: (I) Oxidizing agent (II) Reducing agent. 2  
b) What is the oxidation number? Give the oxidation number of sulphur in the following compounds:  $S_2Cl_2$ ,  $SOCl_2$ ,  $Na_2SO_3$ ,  $K_2S_2O_7$ ,  $H_2SO_4$  and  $Na_2S_2O_3$ . 4  
c) Balance and complete the following equation 4  
$$KMnO_4 + H_2SO_4 + H_2O_2 \longrightarrow K_2SO_4 + MnSO_4 + H_2O + O_2$$
4. a) Write down the concept of conjugated acid and base and explain the dual behavior of water. 4  
b) Calculate the  $[OH^-]$  of a solution of baking soda with a pH of 8.5. 2  
c) What is buffer solution? Write down the application of buffer solution in biological system. 4
5. a) Discuss the similarities and dissimilarities of alkaline and alkaline earth metals. 4  
b) What are the important uses of hydrogen? 3  
c) KOH is a stronger base than  $Ba(OH)_2$  - Explain why? 3

**Section-B**

6. a) What is covalent bond? Write down Lewis structure of the following compound:  $H_2O$ ,  $O_2$ ,  $F_2$ ,  $H_2$  5
7. a) What is polar covalent bond? Mention the factors influencing the polarization of anion. 4  
b) What is coordinate bond? How does it formed? 3  
c) Write a short note on metallic bond. 3
8. a) Discuss the position of inert gases in the periodic table. 2  
b) State the important industrial uses of inert gases. 3  
c) Write down the Rayleigh and Ramsay method for isolation of inert gases from dry air. 5
9. a) What is chemical bond? Write down the cause of chemical bonding. 5  
b) "Formation of an ionic bond involves decrease in energy"- Explain. 2  
c) Mention some properties of ionic compounds. 3
10. a) Write down the artificial methods for nitrogen fixation. 3  
b) Illustrate the electrolysis of water for  $H_2$  production along with its uses. 4  
c) What are the difference between carbon and silicon? Mention some uses of lead (Pb). 3

**Chattogram Veterinary and Animal Sciences University**

**Faculty of Food Science & Technology**

**BFST 1<sup>st</sup> Year 1<sup>st</sup> Semester Final Examination, 2022**

**Course Title: Elementary Food Science (Theory)**

**Course Code: EFS-101**

**Full Marks: 70**

**Time: 3 Hours**

(Figures in the right margin indicate full marks. Answer **four (4)** questions from each section where question number **1 and 6** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together.)

**SECTION-A**

1. Define food science. Illustrate the scope of food science in global context. 5
2. a) Differentiate between food and feed. Explain the major functions of food. 2+3=5  
b) What do you mean by Hypoglycemia and Lactose intolerance? How does carbohydrates help in providing energy to human? 2+3=5
3. a) Differentiate between essential and non-essential amino acids. 5  
b) "The building blocks of protein are amino acids"-justify the statement. 5
4. a) Define dietary fiber and its importance. Explain the good and bad lipids. 3+2=5  
b) What is Phyto-protectant? Classify phytochemicals with their functions and food sources. 1+4=5
5. a) How does carbon bond affect the shape of fatty acid? Explain the functions of fat. 2+3=5  
b) What is fatty acid? Write down the classification and functions of fatty acids. 1+4=5

**SECTION-B**

6. Give an account on Dietary Reference Intakes. Person A might require 55 units of a particular nutrient each day; person B might require 50; and person C might require 70. What would be the RDA for that particular nutrient? 5
7. a) Define mineral. Summarizes the primary functions, recommended intakes and food sources for sodium, phosphorus, and iron. 1+2=3  
b) Why water is important? Compare the free, bound and entrapped water. 1+2=3  
c) Explain the role of major anti-nutrients found in plants. 4
8. a) How does food choices and practices influence by different factors? 5  
b) Define satiety, hunger, appetite, value, and belief. 5
9. a) Identify the functions and deficiency disorders associated with vitamin C, folic acid, and iron. 3  
b) Tabulate food into groups according to ICMR. 3  
c) Describe the functions of two vitamins and three minerals that play important roles in maintaining bone health. 4
10. a) Explain how pigments changes during processing. 4  
b) Write down the short note on- 1.5X4=6
  - i) Hydrogenation of oil
  - ii) Organic food
  - iii) Nutraceuticals
  - iv) Goitrogens

**Chattogram Veterinary and Animal Sciences University**  
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**BFST 1<sup>st</sup> year 1<sup>st</sup> Semester Final Examination, 2022**  
**Course Title: Physics-I (Theory)**  
**Course Code: PHC-101(T)**

**Full Marks: 70**

**Time: 3 Hours**

(Figures in the right margin indicate full marks. Answer four (4) questions from each section where question number 1 and 6 are compulsory. Use separate answer scripts for each section. Fractions of the questions must be answered together.)

**SECTION-A**

1. a) Define elastic and plastic substances. Draw a typical stress-strain graph indicating proportional limit, elastic limit, yielding point and breaking point. 3
- b) How can you distinguish a ductile material from a brittle material in terms of stress-strain relationship graph? 2
  
2. a) Write the physical significance of surface tension in our daily life. 3
- b) Show that, the surface tension of a liquid is equal to the mechanical part of its surface energy. 3
- c) Show that, the excess pressure inside a liquid bubble of radius ' $r$ ' over the atmospheric pressure outside is equal to  $\frac{2T}{r}$ , where  $T$  is the surface tension of the liquid bubble. 4
  
3. a) State and explain equation of continuity. Derive Bernoulli's equation for a fluid in stream line motion. 4
- b) Differentiate between laminar and turbulent flow. 3
- c) Explain Stoke's law of viscosity. 2
- d) What is Reynold's number? Why is Reynold's number important in fluid flows? 1
  
4. a) Define co-efficient of thermal conductivity of a substance. Derive the expression for rectilinear propagation of heat:  
$$\frac{d\theta}{dt} = h \frac{d^2\theta}{dx^2}$$
; Where the symbols have their usual meanings. 5
- b) State second law of thermodynamics. Show that the efficiency of a Carnot cycle depends on the temperature of the source and the sink. 5
  
5. a) Obtain an expression for the differential equation of a simple harmonic oscillator and hence, show that the motion executed by a load suspended from a fixed support is simple harmonic in nature. 5
- b) "The total mechanical energy density of particles in an elastic medium executing plane progressive wave motion is constant and is proportional to the square of the amplitude"- verify the statement. 5

**SECTION-B**

6. a) What do you mean by the terms "Degree's of freedom" and "Mean free path" of gas molecules? Derive an expression for the mean free path travelled by gas molecules between successive collisions. 4
- b) State Carnot's theorem on thermodynamics. 1
  
7. a) Derive an expression for the moment of the couple required to twist one end of a cylinder, while the other end is fixed. Show that, a hollow cylinder is stronger than a solid one of the same material, mass and length. 6
- b) Establish a relationship between bulk modulus and rigidity modulus in terms of Poisson's ratio for elastic substances. Hence, show that Poisson's ratio lies between -1 to 0.5 for elastic substances. 4

8. a) Derive an expression for surface tension of a liquid inside a capillary tube according to capillary rise method. 3
- b) "The kinetic energy of translation of gas molecules depends on temperature, no matter what types of molecules they are"- justify the statement. 3
- c) State Maxwell's equipartition of energy theorem. Establish a relationship between molar specific heat at constant pressure with that at constant volume for an ideal piston-cylinder arrangement working with gas molecules. 4
9. a) Explain the first law of thermodynamics. What is its Physical significance? How is it related with the conservation of energy principle? 2+1+1=4
- b) Applying the first law of thermodynamics, establish the relation  $C_p - C_v = R$  for a reversible adiabatic process, where the symbols have their usual meanings. 3
- c) In a certain process, 500 cal of heat is supplied to a system and at the same time 100 J of work is done on the system. What is the increase in the internal energy of the system? 3
10. a) Derive the adiabatic equation,  $PV^\gamma = \text{constant}$ , where the symbols have their usual meanings. 4
- b) Write down the postulates of kinetic theory of gases. 3
- c) Explain the factors affecting the velocity of sound. 3



**Chattogram Veterinary and Animal Sciences University**  
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**BFST 1<sup>st</sup> year 1<sup>st</sup> Semester Final Examination, 2022**  
**Course Title: Communicative English**  
**Course Code: ENG - 101**

Full Marks: 35

Time: 2 Hours

(Figures in the right margin indicate full marks. Answer all the questions. Use separate answer script for each section. Fractions of the questions must be answered together.)

**SECTION-A**

1. Correct the following sentences if they are incorrect. If the sentence is correct, just copy it. 5
  - a) The land is belonged to me.
  - b) It was occurred in 1999.
  - c) He need a seven- pages- book.
  - d) They would have bought a car if they had enough money for it.
  - e) Who are your favourite authors?
  
2. Complete the following sentences: 5
  - a) Had I been a king.....
  - b) If the sun rises.....
  - c) He is too small.....
  - d) ..... before you start writing your answers.
  - e) Artificial Intelligence (AI) is said to.....
  
3. Draft a CV along with a cover letter in response to an advertisement published in the Daily Star inviting applications for the position of Lecturer in the Department of Agricultural Economics and Social Sciences. 7

**SECTION-B**

4. Change the following sentences as directed: 5
  - a) I am sent a letter. (Change the voice)
  - b) By whom was the dog let out? (Change the voice)
  - c) "You need to practise English every day to improve your English." said the teacher to the students. (Change the speech)
  - d) Corruption is the most debated issue in Bangladesh. Corruption stands in the way of development. (Join the sentences with subordinating conjunction)
  - e) "Have you saved something for the future?" said the Richman. (Change the speech)
  
5. Write a paragraph of about words on "the dark sides of social media" or "world food day". 5
  
6. Read the passage carefully and answer the questions that follow: 8

**Driverless Cars**

A. The automotive sector is well used to adapting to automation in manufacturing. The implementation of robotic car manufacture from the 1970s onwards led to significant cost savings and improvements in the reliability and flexibility of vehicle mass production. A new challenge to vehicle production is now on the horizon and, again, it comes from automation. However, this time it is not to do with the manufacturing process, but with the vehicles themselves.

Research projects on vehicle automation are not new. Vehicles with limited self-driving capabilities have been around for more than 50 years, resulting in significant contributions towards driver assistance systems. But since Google announced in 2010 that it had been trialling self-driving cars on the streets of California, progress in this field has quickly gathered pace.

**B.** There are many reasons why technology is advancing so fast. One frequently cited motive is safety; indeed, research at the UK's Transport Research Laboratory has demonstrated that more than 90 percent of road collisions involve human error as a contributory factor, and it is the primary cause in the vast majority. Automation may help to reduce the incidence of this.

Another aim is to free the time people spend driving for other purposes. If the vehicle can do some or all of the driving, it may be possible to be productive, to socialise or simply to relax while automation systems have responsibility for safe control of the vehicle. If the vehicle can do the driving, those who are challenged by existing mobility models – such as older or disabled travellers – may be able to enjoy significantly greater travel autonomy.

**C.** Beyond these direct benefits, we can consider the wider implications for transport and society, and how manufacturing processes might need to respond as a result. At present, the average car spends more than 90 percent of its life parked. Automation means that initiatives for car-sharing become much more viable, particularly in urban areas with significant travel demand. If a significant proportion of the population choose to use shared automated vehicles, mobility demand can be met by far fewer vehicles.

**D.** The Massachusetts Institute of Technology investigated automated mobility in Singapore, finding that fewer than 30 percent of the vehicles currently used would be required if fully automated car sharing could be implemented. If this is the case, it might mean that we need to manufacture far fewer vehicles to meet demand. However, the number of trips being taken would probably increase, partly because empty vehicles would have to be moved from one customer to the next.

Modelling work by the University of Michigan Transportation Research Institute suggests automated vehicles might reduce vehicle ownership by 43 percent, but that vehicles' average annual mileage would double as a result. As a consequence, each vehicle would be used more intensively, and might need replacing sooner. This faster rate of turnover may mean that vehicle production will not necessarily decrease.

**E.** Automation may prompt other changes in vehicle manufacture. If we move to a model where consumers are tending not to own a single vehicle but to purchase access to a range of vehicle through a mobility provider, drivers will have the freedom to select one that best suits their needs for a particular journey, rather than making a compromise across all their requirements.

Since, for most of the time, most of the seats in most cars are unoccupied, this may boost production of a smaller, more efficient range of vehicles that suit the needs of individuals. Specialised vehicles may then be available for exceptional journeys, such as going on a family camping trip or helping a son or daughter move to university.

**F.** There are a number of hurdles to overcome in delivering automated vehicles to our roads. These include the technical difficulties in ensuring that the vehicle works reliably in the infinite range of traffic, weather and road situations it might encounter; the regulatory challenges in understanding how liability and enforcement might change when drivers are no longer essential for vehicle operation; and the societal changes that may be required for communities to trust and accept automated vehicles as being a valuable part of the mobility landscape.

**G.** It's clear that there are many challenges that need to be addressed but, through robust and targeted research, these can most probably be conquered within the next 10 years. Mobility will change in such potentially significant ways and in association with so many other technological developments, such as telepresence and virtual reality, that it is hard to make concrete predictions about the future. However, one thing is certain: change is coming, and the need to be flexible in response to this will be vital for those involved in manufacturing the vehicles that will deliver future mobility.

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write **ONLY THE ANSWERS**. Do not copy the questions.

Questions: 6a—6d

#### The impact of driverless cars

Figures from the Transport Research Laboratory indicate that most motor accidents are partly due to a) ....., so the introduction of driverless vehicles will result in greater safety. In addition to the direct benefits of automation, it may bring other advantages. For example, schemes for b) ..... will be more workable, especially in towns and cities, resulting in fewer cars on the road.

According to the University of Michigan Transportation Research Institute, there could be a 43 percent drop in c) ..... of cars. However, this would mean that the yearly d) ..... of each car would, on average, be twice as high as it currently is. This would lead to a higher turnover of vehicles, and therefore no reduction in automotive manufacturing.

Questions: 6e—6f

Choose **TWO** letters, A-E.

Write the correct letters beside question number 6e—6f on your answer sheet.

Which **TWO** benefits of automated vehicles does the writer mention?

- A. Car travellers could enjoy considerable cost savings.
- B. It would be easier to find parking spaces in urban areas.
- C. Travellers could spend journeys doing something other than driving.
- D. People who find driving physically difficult could travel independently.
- E. A reduction in the number of cars would mean a reduction in pollution.

Questions: 6g—6h

Choose **TWO** letters, A-E.

Write the correct letters beside question number 6g—6h on your answer sheet.

Which **TWO** challenges to automated vehicle development does the writer mention?

- A. making sure the general public has confidence in automated vehicles
- B. managing the pace of transition from conventional to automated vehicles
- C. deciding how to compensate professional drivers who become redundant
- D. setting up the infrastructure to make roads suitable for automated vehicles
- E. getting automated vehicles to adapt to various different driving conditions