QUESTION BANK

CLASS 11

BUSINESS STUDIES

Q1 Define business.

Q2 Write about nature of business.

Q3 What are Economic Activities?

Q4 Give examples of Economic Activities.
QUESTION BANK

CLASS 11

ACCOUNTS

Q1 What do you mean by Accounting?
Q2 Write characteristics of Accounting.
Q3 What are the objectives of Accounting?
Q4 What do you mean by Book Keeping?
1.) Write the dimensions of work done, universal gravitational constant.
2.) State the principle of homogeneity.
3.) Check the homogeneity of the following equation: $F = \frac{mv^2}{r}$. $F$ is Force; $m$ is mass of the body; $v$ is velocity; $r$ is the radius of the circular path.
4.) From the following equation: $y = a \sin (\omega t + kx)$; determine $\omega/k$.
5.) Check the homogeneity of the following equation. $v = u + at$. Where $v$ and $u$ are the velocities of the body; $a$ is the acceleration and $t$ is the time taken.
6.) Write the dimensions of power and surface tension.
7.) What is the difference between accuracy and precision?
8.) Write the fundamental definition of 1 kg, 1 metre, 1 kelvin, 1 ampere.
9.) Define fundamental units.
10.) Define derived units.
11.) Give the examples of fundamental units.
12.) What are dimensional constants? Give examples.
13.) What are dimensional variables? Give examples.
14.) Write the dimensions of pressure and angular momentum.
15.) Force $F$ is given in terms of time $t$ and distance $x$. By the formula $F = A \sin ct + B \cos dx$. Write the dimensions of $A/B$ and $c/d$.

1.) Check the homogeneity of the equation $T = 2 \pi \sqrt{l/g}$. $T$ is the time period of the pendulum; $l$ is the length of the pendulum; $g$ is the acceleration due to gravity.)
2.) What are random errors?
3.) Write the dimensions of impulse and torque.
4.) What are dimensionless constants? Give examples.
5.) What are dimensionless variables? Give examples.
6.) What are gross errors?
7.) What are absolute errors?
8.) The refractive index of water determined through an experiment is given below. 1.33, 1.32, 1.33, 1.34, 1.35, 1.34, 1.33, 1.32, 1.33, 1.31. Determine absolute error, mean absolute error, relative error, percentage relative error.
9.) The time period of a pendulum depends upon its length and acceleration due to gravity. Deduce an equation for T dimensionally.

10). Write the unit and dimensional formula of ratio of gravitational constant and acceleration due to gravity.

11). Two physical quantities A and B, have different dimensions. Which mathematical operation given below is possible?

(A.) \sqrt{AB}  
(B.) A – B  
(C.) A + B  
(D.) A (1+B)

12). Convert 1 Newton to Dyne dimensionally.

13). The frequency n, of the vibrations, of a stretched string depends on its length L, mass per unit length m and the tension T, of the string. Obtain dimensionally an expression for n.

14). The relative error in A, B, C, and D respectively in the equation \( g = \frac{A^2 B^3}{C^4 D} \) are 1%, 2%, 3%, 4%, 5%. Find the percentage relative error in g.

15). Convert 1 Joules into Ergs dimensionally.

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**CLASS XI**

**PHYSICS**

**ASSIGNMENT – 3 (Chapter: Kinematics, Newton’s laws of motion)**

**Note:** Assignment to be done in Physics Assignment copy.

1.) Write the difference between speed and velocity.
2.) Define Average speed.
3.) Define acceleration.
4.) What is uniform motion and non-uniform motion? Give an example graphically.
5.) What does the area under a velocity time graph give.
6.) What does the slope of a distance time graph give.
7.) Write the difference between distance and displacement.
8.) A ball is dropped from the top of a tower of height 19.6 meter. Calculate the velocity with which the ball strikes the ground and the time it takes.
9.) A car starts from rest and attains the velocity of 36 kmph in 5 seconds. Find the acceleration and distance it travels.
10.) A person throws a ball in the upward direction with a speed of 5 m/s. And the ball reaches back to the person in 10 seconds. Find the maximum height attained by the ball.
11.) What is the average speed and average velocity of a 5 cm long minute hand of a clock from (a.) 6 am to 6.15 am (b.) 6 am to 6.30 pm.
12.) What are balanced and unbalanced forces?
13.) State Newton’s three laws of motion with examples.
14.) State and prove law of conservation of momentum.
15.) A uniform circular motion is an accelerated motion. Explain.
1. Who is the author of 'The Portrait of a Lady'?
A. Ruskin Bond
B. Khushwant Singh
C. Naipaul
D. Vikram Bhatt

2. Who is the main character of the chapter 'The Portrait of a Lady'?
A. Mother
B. Sister
C. Grandmother
D. Daughter

3. How did the grandfather in the portrait hung on the wall look like?
A. Old, long white beard, worn big turban
B. Old, skinny, wrinkly
C. Young, Handsome, Well-Built
D. Old, Well-Built

4. How did the grandmother look?
A. Old, Fat, Long
B. Long, Fat, Slightly Bent
C. Old, Short, Slightly Bent, Fat
D. Slightly Bent, Fat

5. When did the author’s parents leave him with his grandmother?
A. When he was a kid
B. When he was an infant
C. When he became a teenager
D. When he failed and became a teenager

6. What was grandmother's reaction when the author was going abroad?
A. Happy
B. sad
C. not even sentimental
D. Sentimental

7. What was her reaction when he came back after 5 years?
A. Overwhelmed
B. clasped the author in her arms and said prayers
C. happy
D. sentimental

**Subjective Questions**
1. What facts about the grandmother did Khushwant Singh found difficult to believe? Why?
2. What was amusing about Kushwant Singh’s beliefs about his grandmother and grandfather? Why was the boy unable to believe the things he had heard about them?
3. What did Kushwant compare his grandmother to? What trait of her character is revealed through the comparison?
4. What effort did the grandmother make to inculcate religious values in Khushant? What do we understand from her effort?
5. What do you learn about the village schools in Khushant Singh’s childhood days?
6. It really pained the grandmother that the schools did not teach anything about God and the scriptures. Should moral education be taught in schools? What do you think?
7. Gradually the author and the grandmother saw less of each other and their friendship was broken. Was the distancing in the relationship deliberate or due to the demand of the situation?
8. From a foster mother in the village to a lonely old lady in the city describe the grandmother’s journey through the later part of her life.
9. The grandmother was not pretty but beautiful. How?

**A Photograph**

**MULTIPLE CHOICE QUESTIONS**

1. Who is the poet/poetess of the poem ‘A Photograph’?
   a. W.B. Yeats
   b. John Keats
   c. Shirley Toulson
   d. Marcus Natten

2. The poem ‘A Photograph’ is ...........
   a. About the poet’s photograph
   b. About the poet’s uncle
c. About the poet’s mother’s girlhood
d. A tribute to the poet’s mother

3. The cardboard shows the picture of…….. ()
a. The poet’s mother and her two girl cousins.
b. The uncle with the camera
c. The poet’s mother.
d. Betty and Dolly

4. Which one of the following statements is true?
a. The photograph was taken when the poet was a child.
b. The photograph was taken when the poet was not even born.
c. The photograph was taken when the poet was twelve years old.
d. The photograph was taken twelve years ago.

5. The word ‘Transient’ in the first stanza means?
a. Unchanging nature of the sea.
b. Changing life of man.
c. Permanent feature of the humans.
d. Impermanent and short lived.

6. What does ‘her past’ refer to?
a. Her childhood.
b. Her uncle
c. The beach holiday that she enjoyed with her friends.
d. Her photograph.

7. What is the poetic device used in the line, “washed their terribly transient feet”?
a. Alliteration
b. Oxymoron
c. Simile
d. Metaphor

8. What does the cardboard here refer to?
(a) A thick paper on which the poet’s photograph was pasted
(b) A thick envelope
(c) A thick paper on which the poet’s mother’s photograph was pasted
(d) A paper boat
9. What does the cardboard depict?
(a) It depicts a scenery
(b) It depicts the picture of a house
(c) It depicts the picture of a school
(d) It depicts the picture of three girls

10. Who is the ‘big girl’ mentioned here?
(a) The big girl is the poet herself
(b) The big girl is the poet’s mother
(c) The big girl is the poet’s relative
(d) The big girl is the poet’s friend

2. Read the extract given below and answer any two of the questions that follow.

A. “All three stood still to smile through their hair At the uncle with the camera. A sweet face,
My mother’s, that was before I was born.
And the sea, which appears to have changed less,
Washed their terribly transient feet.”

1. What does the poet mean by ‘smile through their hair’?
(a) It means that a smile was painted on the hair of the photographed girls
(b) It means that the photographed girls were wearing a mask
(c) It means that the hair of the photographed girls were covering their face when they were smiling
(d) It means that the hair of the girls in the photograph was smiling too

2. What has not changed over a period of time?
(a) The photo
(b) The cardboard
(c) The girls
(d) The sea

3. Find a word from the extract which means “lasting only for a short time”?
(a) Still
(b) Transient
(c) Changed
(d) Less
B. Now she's been dead nearly as many years As that girl lived. And of this circumstance There is nothing to say at all. Its silence silences.”

1. Who does ‘she’ refer to?
(a) The poet’s dead aunt
(b) The poet’s dead mother
(c) The poet’s dead cousin
(d) The poet’s sister

2. Why is there nothing to say about the death of the poet’s mother?
(a) Because the poet is confused
(b) Because the poet was not in her senses when her mother expired
(c) Because the death of the poet’s mother has left a deep void in the poet’s heart
(d) Because the poet did not have a good relationship with her mother

3. Which word in the extract means the same as “events that change your life, over which you have no control”?
(a) Silences
(b) Circumstances
(c) Situation
(d) Circumstance

**Subjective Questions**
Read the following extracts and answer the questions that follow:
The cardboard shows me how it was
When the two girl cousins went for paddling
Each one holding my mother's hands
And she the big girl-some twelve years or so.

a. Who is the speaker of these lines?
b. What does the word 'cardboard' suggest?
c. Who were the three girls captured in the photograph?

1. How does the poet react to her past? Why has she not mentioned anything about her mother’s death?
2. What do you understand about Shirley Toulson’s poem, “A Photograph”?
3. What do you come to know about the personality of the mother?
4. In the second stanza the poet brings about a contrast. What is it? Discuss.
5. Explain the significance of the photograph.
6. The poet talks about a particular cardboard. How is it special to her?
7. What can you say about the childhood of the poet’s mother?
8. What moment does the photograph depict?
9. Were the three cousins camera friendly? Who was taking their photograph?
10. The poet’s mother would laugh looking at the photograph. Why?
11. What impression do you form about the poet’s mother?
12. The sea ‘appears to have changed less’ in comparison to the three girls who enjoyed the sea holiday. Comment.

**SNAPSHOT (Supplementary book)**

**Ch-1 Summer of the Beautiful white horse**

**Multiple Choice Questions**
1. If you were Aram-------
   a) You wouldn’t join Mourad for horse riding.
   b) You would advised him to return the horse on the first day itself.
   c) You would have taken the horse and kept it in a secret place till you learn horse riding.

2. Mourad became ready to return the horse, even though Aram didn’t learn horse riding because:
   a) He knew Aram wouldn’t learn horse riding.
   b) The horse wouldn’t stay with him for a long period.
   c) Already it’s too late to keep the horse in hiding.

3. John Byro remarked that the horse is a twin of his horse because:
   a) He failed to identify his horse.
   b) He had twin horses
   c) He couldn’t doubt on the Armenian children of stealing the horse.

4. The tone of the story is:
   a) Sad
   b) Happy
   c) Nostalgic

5. The climax of the story is:
   a) Happy ending.
   b) Regretting
   c) Repenting

**Subjective Questions**
i. Do you think Mourad knew what he was doing when he took away the horse? What may be his mental status at that time?
ii. Aram knew at the first sight of the beautiful white horse, that it has been stolen. Then too he accompanied Mourad. Why?
iii. What made uncle Khosrove to roar, “Pay no attention to it. It’s noharm.”?
iv. John Byro was suffering from loneliness. Why?
v. Justify the title of the story.
vi. Write pen portrait of the protagonist of this story.
vii. What does the writer suggest by beginning the story with the following words, “One day back there in the good old days…”?
viii. What does the writer say about the ‘good old days’?
ix. What was the narrator’s first reaction to the horse?
x. What did the narrator think of Mourad?
xi. What were the chief traits of the members of his family that the narrator could recall?
 xii. Why was the narrator both delighted and frightened at the same time?
xiii. How did the narrator establish that Mourad had stolen the horse?

Ch-2 The Address

Multiple Choice Questions
1. What was the narrator’s final decision?
   a) The narrator decided to get the nice things from Mrs. Dorling’s daughter
   b) The narrator resolved to forget the address
   c) The narrator decided to go to the address the third time

2) Give the word meaning ‘Acquaintance’
   a) Relatives
   b) Friends
   c) Known person/ familiar

3) How did the narrator ensure she was in the right place?
   a) On seeing the name plate
   b) On seeing Mrs. Dorling
   c) On seeing mother’s green knitted cardigan worn by Mrs. Dorling

4) Tick the correct address
   a) No. 46 Marconi street
   b) Mrs. Dorling, Number 46, Marconi street
   c) 42 Marconi street
5. “I was in a room I knew and did not know.” What does author mean by this?
A. She saw familiar things but in unfamiliar surroundings
B. She saw unfamiliar things but in familiar surroundings
C. She did not recognize the things she saw
D. She did not want to remember anything

Subjective Questions
1. How would you say the title "Address" was aptly chosen for the story?
2. What makes the narrator go to 46, Marconi Street?
3. What do you understand about Mrs. S?
4. Who is Mrs. Dorling? Do you justify her behaviour?
5. Why did the narrator feel she had rung the wrong bell? How was she assured she was in the right place?
6. Where had the narrator come? Why was she back?
7. Whom did the narrator wished to meet in Holland? Why?
8. What kind of a welcome did the narrator get from Mrs Dorling?
9. When did the narrator first learn about the existence of Mrs Dorling?
10. What was the narrator’s mother’s opinion about Mrs Dorling?
11. What did the narrator recall about her first meeting with Mrs Dorling?
12. Why did the narrator return to Marconi Street after a long time?

INTEGRATED GRAMMAR

a. Complete the following dialogue with appropriate words.

Nikki: (i) ------ you please show me the latest edition of Discovery of Indian Culture
Shopkeeper: Sure, we have the 2001 edition. This (ii) --------- be the latest edition I am sure.
Nikki: What is its price?
Shopkeeper: Not much. It (iii) -----------be around one hundred and fifty rupees. Yes it is just one hundred and fifty five rupees
Nikki: I’m sorry I don’t have ready cash. (iv) ------ I pay by credit card?
Shopkeeper: Don’t worry. You (v) -----------pay later. We accept credit cards of course. If you wish to avail of the gift coupon, you (vi)--------pay in cash only.
Nikki: I (vii) -------then pay in cash only. (viii)------------- you reserve the book for me till tomorrow?

b. Use the information given below to fill up the blanks.
a. Paper is made from wood.
b. Take the wood to a paper mill.
c. Cut wood into small chips by a machine.
d. Mix chips with water and acid.
e. Heat the mixture to produce thick pulp.
f. Add chemicals to whiten the pulp.
g. Pass through machine to flatten, then use heavy steel rollers to produce wet paper.
h. Dry the sheets and press them to produce paper.

Paper is made from wood. First the wood (a) ---------------------- to a paper mill. Then it (b) ---------------------- into small chips by a machine. These chips (c) ---------------------- with water and acid. It is then heated till thick pulp (d) ---------------------- . Chemicals (e) ---------------------- to whiten the pulp. Then it (f) ---------------------- through a machine to flatten it. Heavy steel rollers (g) ---------------------- to produce wet paper. These sheets (h) ---------------------- and pressed to produce paper.

c. Complete the following report written by an eyewitness of an accident with the correct form of the words given in the brackets.

The car could not (a)………… (see) by the cyclist from a long distance. He (b)………… (crush) by the speeding car. He (c)………… (warn) by another cyclist on the road but it was rather late. The victim (d)……….. (declare) dead on (e)……..(reach) the hospital by the doctor. The car driver (f)……………… (arrest).

d. Rearrange the following words and phrases to form meaningful sentences.

i. Celebrating/Madhupur/basantpanchami/the/spring/was/festival of

ii. the fair/villagers/held/turning /up/a maidan/ in/in hordes/were / for

iii. bullock carts/were walking/they./were riding/in/they/donkeys/on even

iv. seemed/happy/were/women/singing/everyone/and/ dancing/little children/were

e. Rearrange the following words and phrases to form meaningful sentences.

i. Our/that/time/the/is/paradox/have/tempers/of/we/but/ buildings/shorter/taller
ii. Have/less/more/spend/we/but

iii. Bigger houses/more conveniences/smaller families/less time/and/but/ have /we
iv. More/degrees/have/we/but/more/commonsense/judgement/knowledge/less
/but
1) A company interested in cloud computing is looking for a provider who offers a set of basic services such as virtual server provisioning and on-demand storage that can be combined into a platform for deploying and running customized applications. What type of cloud computing model fit these requirements?
   a) Platform as a Service
   b) Software as a Service
   c) Infrastructure as a Service

2) Which is not one of the features of IoT devices?
   a) Remotely controllable
   b) Programmable
   c) Can turn themselves off if necessary
   d) All of the above

3) Which of the following is NOT an element of communication within the communication process cycle?
   (a) Channel
   (b) Receiver
   (c) Sender

4) How can you increase the performance of a computer?

5) What do you understand by the Internet of Things? List some of its potential applications.

6) Write a short note on the following:
   a) Cloud computing
   b) Big data and its characteristics

7) Explain the following along with their applications.
   a) Artificial Intelligence
   b) Machine Learning

8) Differentiate between cloud computing and grid computing with suitable examples.
9) Justify the following statement- ‘Storage of data is cost-effective and time-saving in cloud computing.’

10) What is the on-demand service? How it is provided in the cloud computing?

11) If Government plans to make a smart school by applying IoT concepts, how can each of the following be implemented in order to transform a school into IoT enabled smart school?
   a) e-textbooks
   b) Smart boards
   c) Online tests
   d) Wifi sensors on classrooms doors
   e) Sensors in buses to monitor their location
   f) Wearables (watches or smart belts) for attendance monitoring

12) How IoT and WoT are related?

13) List some of the cloud-based services that you are using at present.

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SYLLABUS FOR PT-1

UNIT: CELL : STRUCTURE AND FUNCTION

LESSON- CELL : THE UNIT OF LIFE

LESSON- BIOMOLECULES

LESSON- CELL CYCLE AND CELL DIVISION

QUESTION BANK

CLASS-11(BIOLOGY)

UNIT: CELL: STRUCTURE AND FUNCTION

Q1 What is the importance of a vacuole in a plant cell?
Q2 What is a satellite chromosome?
Q3 State the characteristics of prokaryotic cells.
Q4 What do you mean by plasmids? What role do they play in bacteria?
Q5 Describe the cell theory in brief.
Q6 What is a mesosome?
Q7 What does “S” stand for in the 70S and 80S ribosome?
Q8 What is the fluid mosaic model of the plasma membrane?
Q9 What are nuclear pores? State their function.
Q10 Draw a neat diagram of plant cell and label any three parts which differentiate it from animal cell.
Q11 Explain different types of chromosomes on the basis of centromere position.
Q12 How are co-factors different from prosthetic groups?
Q13 Chitin, Cellulose, Glycogen, Polysaccharides and Starch are present in the following options. Choose and write appropriately against each.
   a) Cotton fibre b) Exoskeleton of Cockroach c) Liver d) Peeled Potato
Q14 What are different classes of enzymes?
Q15 What is the difference between a nucleotide and nucleoside?
Q16 Explain the structure of DNA molecule.
Q17 Define enzymes. How does ph and temperature affect enzyme activity
Q18 What is competitive inhibition? Explain with the help of example.
Q19 Differentiate between primary and secondary metabolite.
Q20 Write short note on polysaccharides.
Q21 During which phase of the cell cycle does the DNA get synthesized?

Q22 What is the role of centrioles apart from spindle formation?

Q23 Under uncontrolled cell division, what is the pathological condition that occurs?

Q24 State differences between the events of meiosis and mitosis.

Q25 Explain:
   a) Synaptonemal complex

Q26 Write the phases of the cell cycle against each of the events
   a) The disintegration of the nuclear membrane
   b) The appearance of the nucleolus
   c) Division of centromere
   d) Replication of DNA

Q27 How does cytokinesis in plant cells differ from that in animal cells? Write briefly the significance of mitosis and meiosis in multicellular organisms.

Q28 Why is meiosis a reductional division?

Q29 Name the two phases of the cell cycle of a somatic cell.

Q30 Distinguish between Anaphase of mitosis and Anaphase of meiosis I.
UNIT1. SOME BASIC CONCEPTS OF CHEMISTRY

UNIT2. STRUCTURE OF ATOM (till BOHR’S MODEL)

1. What will be the mass of one atom of C-12 in grams?

2. What is the symbol for SI unit of mole? How is the mole defined?

3. What is the difference between molality and molarity?

4. Calculate the mass percent of calcium, phosphorus and oxygen in Calcium phosphate Ca3(PO4)2.

5. 45.4 L of dinitrogen reacted with 22.7 L of dioxygen and 45.4 L of nitrous oxide was formed. The reaction is given below:

   \[ 2N_2(g) + O_2(g) \rightarrow 2N_2O(g) \]

   Which law is being obeyed in this experiment? Write the statement of the law?

6. If two elements can combine to form more than one compound, the masses of one element that combine with a fixed mass of the other element, are in whole number ratio.

   (a) Is this statement true?
   (b) If yes, according to which law?
   (c) Give one example related to this law.

7. Hydrogen gas is prepared in the laboratory by reacting dilute HCl with granulated zinc. Following reaction takes place.

   \[ Zn + 2HCl \rightarrow ZnCl_2 + H_2 \]

   Calculate the volume of hydrogen gas liberated at STP when 32.65 g of zinc reacts with HCl. 1 mole of a gas occupies 22.7 L volume at STP; atomic mass of Zn = 65.3 u.

8. The density of 3 molal solution of NaOH is 1.110 g mL\(^{-1}\). Calculate the molarity of the solution.

9. Volume of a solution changes with change in temperature, then, will the molality of the solution be affected by temperature? Give reason for your answer.

10. If 4 g of NaOH dissolves in 36 g of H2O, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1g mL\(^{-1}\))
11. The reactant which is entirely consumed in reaction is known as limiting reagent. In the reaction
2A + 4B → 3C + 4D, when 5 moles of A react with 6 moles of B, then
(i) Which is the limiting reagent? (ii) calculate the amount of C formed?

12. Calcium carbonate reacts with aqueous HCl to give CaCl2 and CO2 according to the reaction given below:

CaCO3 (s) + 2HCl (aq) → CaCl2(aq) + CO2(g) + H2O(l)

What mass of CaCl2 will be formed when 250 mL of 0.76 M HCl reacts with 1000 g of CaCO3? Name the limiting reagent. Calculate the number of moles of CaCl2 formed in the reaction.

13. Define the law of multiple proportions. Explain it with two examples. How does this law point to the existence of atoms?

14. Calculate no. of carbon and oxygen atoms present in 11.2 litres of CO2 at N.T.P.

15. KClO3 on heating decomposes to give KCl and O2. What is the volume of O2 at N.T.P liberated by 0.1 mole of KClO3?

16. 10 ml of a solution of NaCl containing KCl gave on evaporation 0.93 g of the mixed salt which gave 1.865 g of AgCl by reacting with AgNO3 solution. Calculate the quantity of NaCl in 10 mL of the solution.

17. The cost of table salt (NaCl) and table sugar (C12H22O11) are Rs 1 per kg and Rs 6 per kg respectively. Calculate their cost per mole.

18. A flask P contains 0.5 mole of oxygen gas. Another flask Q contains 0.4 mole of ozone gas. Which of the two flasks contains greater number of oxygen atoms?

19. Calculate the total number of electrons present in 1.6 g of methane.

20. The vapour density of a mixture of NO2 and N2O4 is 38.3 at 27°C. Calculate the number of moles of NO2 in 100 g of the mixture.

21. The Vapour Density of a gaseous element is 5 times that of oxygen under similar conditions. If the molecule is triatomic, what will be its atomic mass?

22. Assertion (A): Significant figures for 0.200 is 3 whereas for 200 it is 1.

Reason (R): Zero at the end or right of a number are significant provided they are not on the right side of the decimal point.

(i) Both A and R is true and R is correct explanation of A.

(ii) Both A and R is true but R is not a correct explanation of A.

(iii) A is true but R is false.
(iv) both A and R is false.

23. Assertion (A): Combustion of 16 g of methane gives 18 g of water.
Reason (R): In the combustion of methane, water is one of the products.
(i) Both A and R is true but R is not the correct explanation of A.
(ii) A is true but R is false.
(iii) A is false but R is true.
(iv) Both A and R is false.

24. Elements X and Y combine to form two compounds XY and X2Y. Find the atomic weight of X and Y, if the weight of 0.1 moles of XY is 10g and 0.05 moles of X2Y is 9g

25. Find the volume of O2 required to burn 1 L of propane completely, measured at 0°C temperature and 1 atm pressure

26. A container has an equal mass of H2, O2 and CH4 at 27°C, the ratio of their volume is

MULTIPLE CHOICE TYPE QUESTIONS

27 Which of the following terms are unit less?
   (a) Molality
   (b) Molarity
   (c) Mole fraction
   (d) Mass percent

28 16 g of oxygen has same number of molecules as in
   (a) 16 g of CO
   (b) 28 g of N2
   (c) 14 g of N2
   (d) 1.0 g of H2

29. Number of significant Figures in the number 1.065
   (a) 3
   (b) 4
   (c) 2
   (d) 1
30. What will be the molality of the solution containing 18.25 g of HCl gas in 500 g of water?

(a) 0.1 m
(b) 1 M
(c) 0.5 m
(d) 1 m
Q1. What is meant by the term constitution?
Q2. Do you agree with the view that the Constitution of India distributed powers in a way that no single branch of government could subvert the democratic character of the Constitution?
Q3. What is the significance of the Fundamental Rights given in our Constitution?
Q4. Explain the Writs which the Supreme Court can issue for the protection of Fundamental rights.
Q5. Mention what provisions were made in our Constitution for the protection of language and culture of minorities.
Q6. How does the Right to freedom of Religion establish a secular polity?
Q7. "Heritage of the national movement had a strong influence on ideals and values that the constitution –maker thought were important in national life." Comment how does our Constitution reflects these ideals?
Q8. What are the main features of the Constitution?
Q9. How does a Constitution help in fulfilling the aspiration of a society and helps in creating a just society?
Q10. Explain the meaning of the following words, "We, the people of India….. adopts, enact and give to ourselves this constitution"
Q11. What do you mean by fundamental identity of people?
Q12. Explain the main sources of Indian Constitution.
Q14. Explain the term "Trafficking" in human beings.
Q15. Give the reasons which show that rights are not absolute.
Q16. Mention any three major constitutional provisions for the protection of women and children in India.
Q17. Why have Fundamental Duties been included in the Constitution?
Q18. What is the nature and purpose of the DPSP?
Q20. Who was the President of the Constituent Assembly?
QUESTION BANK (2021-2022)

CLASS 11

SUBJECT- ECONOMICS

SYLLABUS FOR PT-1 EXAM- UNIT-1 INTRODUCTION, UNIT-2, CONSUMER’S EQUILIBRIUM & DEMAND

INSTRUCTIONS- 1) These questions are for practice purpose.
2) Do these questions in your assignment register.

QUESTIONS

Q1) “Problem of resource allocation would not arise, if resources do not have alternative uses.” Defend or refute the statement with valid arguments.

Q2) “Scarcity and choice problem go together”. Do you agree with the statement? Give reasons in support of your answer.

Q3) Why does the problem of choice arise for producers and for consumers?

Q4) Comment upon the shape of production possibility curve, if the marginal rate of transformation is constant.

Q5) Assuming that no resource is equally efficient in production of all goods, name the curve which shows production potential of the economy. State its properties.

Q6) What is the effect on MRT as we move downwards along a PPC?

Q7) What is the effect of unemployment on the production possibilities curve? Explain.

Q8) Explain the likely impact of large scale outflow of foreign capital on Production Possibility curve of the economy.

Q9) Economic slowdown in some parts of the world has adversely affected demand for India exports. What will be its effect on the production possibilities frontiers of India? Explain.

Q10) A consumer consumes only 2 goods X and Y and is in equilibrium. Price of X falls. Explain the reaction of consumer through the marginal utility analysis.

Q11) Discuss briefly, using a hypothetical schedule, the relation between marginal utility and total utility.
Q12) Explain the law of diminishing marginal utility, using hypothetical schedule.

Q13) Why should MRS diminish for a stable consumer’s equilibrium?

Q14) Explain the meaning of budget line. What can cause a change in it? Explain

Q15) What is the slope of Indifference curve?

Q16) Give any 3 factors that can cause a rightward shift in the demand curve?

Q17) State any 3 factors causing increase in market demand.

Q18) What will be the effect of increase in number of buyers on demand curve for a good?

Q19) Distinguish between normal goods and inferior goods, with examples.

Q20) Name 4 goods having inelastic demand. Give reasons why demand for salt or water bottle is inelastic?

Q21) Explain the term change in demand and represent the same graphically. Also state 3 factors responsible for change in demand.

Q22) Why does demand for normal good increases due to increase in consumer’s income.
Question Bank for PT – 1

practice questions on operations on sets

(union of sets, intersection of sets and difference of sets.)

1. If \(A = \{2, 3, 4, 5\}\) \(B = \{4, 5, 6, 7\}\) \(C = \{6, 7, 8, 9\}\) \(D = \{8, 9, 10, 11\}\), find
   (a) \(A \cup B\)
   (b) \(A \cup C\)
   (c) \(B \cup C\)
   (d) \(B \cup D\)
   (e) \((A \cup B) \cup C\)
   (f) \(A \cup (B \cup C)\)
   (g) \(B \cup (C \cup D)\)

2. If \(A = \{4, 6, 8, 10, 12\}\) \(B = \{8, 10, 12, 14\}\) \(C = \{12, 14, 16\}\) \(D = \{16, 18\}\), find
   (a) \(A \cap B\)
   (b) \(B \cap C\)
   (c) \(A \cap (C \cap D)\)
   (d) \(A \cap C\)
   (e) \(B \cap D\)
   (f) \((A \cap B) \cup C\)
   (g) \(A \cap (B \cup D)\)
   (h) \((A \cap B) \cup (B \cap C)\)
   (i) \((A \cup D) \cap (B \cup C)\)

3. If \(A = \{4, 7, 10, 13, 16, 19, 22\}\) \(B = \{5, 9, 13, 17, 20\}\) \(C = \{3, 5, 7, 9, 11, 13, 15, 17\}\) \(D = \{6, 11, 16, 21\}\) then find
   (a) \(A - C\)
   (b) \(D - A\)
   (c) \(D - B\)
   (d) \(A - D\)
More Practice Test on Operations on Sets

4. If $A$ and $B$ are two sets such that $A \subset B$, then what is $A \cup B$?

5. Find the union, intersection and the difference $(A - B)$ of the following pairs of sets.

   (a) $A = \text{The set of all letters of the word FEAST}$
       $B = \text{The set of all letters of the word TASTE}$

   (b) $A = \{x : x \in W, 0 < x \leq 7\}$
       $B = \{x : x \in W, 4 < x < 9\}$

   (c) $A = \{x \mid x \in N, x \text{ is a factor of } 12\}$
       $B = \{x \mid x \in N, x \text{ is a multiple of } 2, x < 12\}$

   (d) $A = \text{The set of all even numbers less than } 12$
       $B = \text{The set of all odd numbers less than } 11$

   (e) $A = \{x : x \in I, -2 < x < 2\}$
       $B = \{x : x \in I, -1 < x < 4\}$

   (f) $A = \{a, l, m, n, p\}$
       $B = \{q, r, l, a, s, n\}$

6. Let $X = \{2, 4, 5, 6\}$ $Y = \{3, 4, 7, 8\}$ $Z = \{5, 6, 7, 8\}$, find

   (a) $(X - Y) \cup (Y - X)$
   (b) $(X - Y) \cap (Y - X)$
   (c) $(Y - Z) \cup (Z - Y)$
   (d) $(Y - Z) \cap (Z - Y)$

Practice Test on Operations on Sets
7. Let $\xi = \{1, 2, 3, 4, 5, 6, 7\}$ and $A = \{1, 2, 3, 4, 5\}$ $B = \{2, 5, 7\}$ show that

(a) $(A \cup B)' = A' \cap B'$

(b) $(A \cap B)' = A' \cup B'$

(c) $(A \cap B) = B \cap A$

(d) $(A \cup B) = B \cup A$

8. Let $P = \{a, b, c, d\}$ $Q = \{b, d, f\}$ $R = \{a, c, e\}$ verify that

(a) $(P \cup Q) \cup R = P \cup (Q \cup R)$

(b) $(P \cap Q) \cap R = P \cap (Q \cap R)$

Answers for practice questions on operations on sets are given below to check the correct answers.

Answers:

1. (a) $\{2, 3, 4, 5, 6, 7\}$
   (b) $\{2, 3, 4, 5, 6, 7, 8, 9\}$
   (c) $\{4, 5, 6, 7, 8, 9\}$
   (d) $\{4, 5, 6, 7, 8, 9, 10, 11\}$
   (e) $\{2, 3, 4, 5, 6, 7, 8, 9\}$
   (f) $\{2, 3, 4, 5, 6, 7, 8, 9\}$
   (g) $\{4, 5, 6, 7, 8, 9, 10, 11\}$

2. (a) $\{8, 10, 12\}$
   (b) $\{12, 14\}$
   (c) $\emptyset$
   (d) $\{12\}$
   (e) $\emptyset$
   (f) $\{8, 10, 12, 14, 16\}$
   (g) $\{8\}$
   (h) $\{8, 10, 12, 14\}$
   (i) $\{8, 10, 12, 16\}$

3. (a) $\{4, 10, 16, 19, 22\}$
   (b) $\{6, 11, 21\}$
   (c) $\{6, 11, 16, 21\}$
   (d) $\{4, 7, 10, 13, 19, 22\}$
   (e) $\{20\}$
   (f) $\{3, 5, 7, 9, 13, 15, 17\}$
   (g) $\{5, 19, 17, 20\}$
   (h) $\{5, 9, 13, 17, 20\}$
   (i) $\{6, 16, 21\}$
   (j) $\{4, 7, 10, 16, 19, 22\}$
   (k) $\{3, 7, 11, 15\}$
   (l) $\{3, 5, 9, 11, 15, 17\}$
4. B

5. (a) \{F, E, A, S, T\}, \{E, A, S, T\}, \{F\}
   (b) \{1, 2, 3, 4, 5, 6, 7, 8\}, \{5, 6, 7\}, \{1, 2, 3, 4\}
   (c) \{1, 2, 3, 4, 6, 8, 10, 12\}, \{2, 4, 6\}, \{1, 3, 12\}
   (d) \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}, d, \{2, 4, 6, 8, 10\}
   (e) \{-1, 0, 1, 2, 3\}, \{0, 1\}, \{-1\}
   (f) \{a, 1, m, n, p, q, r, s\}, \{a, l, n\}, \{m, p\}

6. (a) \{2, 3, 5, 6, 7, 8\}
   (b) d
   (c) d \{3, 4, 5, 6\}
   (d) d

7. (a) L.H.S. = R. H. S = \{6\}
   (b) L.H.S. = R. H. S = \{1, 3, 4, 6, 7\}
   (c) \{2, 5\}
   (d) \{1, 2, 3, 4, 5, 7\}

8. (a) \{a, b, c, d, e, f\}
   (b) d
Practice Questions on Sets and Subsets

1. If \( U = \{1, 3, 5, 7, 9, 11, 13\} \), then which of the following are subsets of \( U \).

   \( B = \{2, 4\} \)

   \( A = \{0\} \)

   \( C = \{1, 9, 5, 13\} \)

   \( D = \{5, 11, 1\} \)

   \( E = \{13, 7, 9, 11, 5, 3, 1\} \)

   \( F = \{2, 3, 4, 5\} \)

2. Let \( A = \{2, 3, 4, 5, 6, 7\} \), \( B = \{2, 4, 7, 8\} \), \( C = \{2, 4\} \). Fill in the blanks by \( \subset \) or \( \not\subset \) to make the resulting statements true.

   (a) \( B \_\_ A \)

   (b) \( C \_\_ A \)

   (c) \( B \_\_ C \)

   (d) \( \emptyset \_\_ B \)

   (e) \( C \_\_ C \)

   (f) \( C \_\_ B \)

3. Which of the following sets is a universal set for the other four sets?

   (a) The set of even natural numbers

   (b) The set of odd natural numbers

   (c) The set of natural numbers

   (d) The set of negative numbers

   (e) The set of integers

4. Write all the subsets for the following.

   (a) \( \{3\} \)

   (b) \( \{6, 11\} \)
5. Write down all the possible proper subsets for each of the following.

(a) \{a, b, c, d\}
(b) \{1, 2, 3\}
(c) \{p, q, r\}
(d) \{5, 10\}
(e) \{x\}
(f) \emptyset

6. Find the number of subsets for set

(a) containing 3 elements
(b) whose cardinal number is 5

7. Find the number of proper subsets of a set

(a) containing 6 elements
(b) whose cardinal number is 4

8. Show with an example that if the number of elements in a set is ‘n’, then

(a) the number of subsets is \(2^n\)
(b) the number of proper subsets is \(2^n - 1\).

9. Write the universal set for the following.

(a) P = \{4, 6, 8\} \quad Q = \{1, 3, 9\} \quad R = \{0, 2, 5\} \quad S = \{7\}
(b) $X = \{a, b, c\} \quad Y = \{c, b, f\} \quad Z = \{e, g\}$

(c) Prime numbers less than 10, even numbers less than 10, multiples of 3 less than 10.

10. If $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$A = \{2, 4, 6, 8\}$

$B = \{3, 5, 7\}$

$C = \{1, 5, 7, 8, 9\}$

Find (a) $A'$  (b) $B'$  (c) $C'$

11. State whether true or false.

(a) Quadrilateral $\subseteq$ polygon

(b) $\{1\}$ ↔ $\{0\}$

(c) Whole numbers $\subseteq$ natural numbers

(d) $\{a\} \in \{d, e, f, a\}$

(e) Natural numbers $\subseteq$ whole numbers

(f) Integers $\subseteq$ natural numbers

(g) $0 \in \emptyset$

(h) $\emptyset \in \{1, 2, 3\}$

12. Let the set of integer be the universal set and let $A =$ set of whole numbers, then what is $A'$?

13. Let $A \{x : x = n \rightarrow 2, n < 5\}$. Find $A$ when

(a) $n = W, n \in W$

(b) $n = N, n \in N$

(c) $n \in I = I$

14. If $U = \{2, 3, 4, 5, 6, 7, 8, 9\}$ \quad $X = \{3, 5, 7, 9\}$ \quad $Y = \{2, 4, 6, 8\}$

Show that $X = Y'$ and $Y = X'$
15. Let \( P = \{3, 5, 7, 9, 11\} \quad Q = \{9, 11, 13\} \quad R = \{3, 5, 9\} \quad S = \{13, 11\} \)

Write Yes or No for the following.

(a) \( R \subset P \)
(b) \( Q \subset P \)
(c) \( R \subset S \)
(d) \( S \subset Q \)
(e) \( S \subset P \)
(f) \( P \not\subset Q \)
(g) \( Q \not\subset R \)
(h) \( S \not\subset Q \)

Answers for practice questions on sets and subsets are given below to check the answers of the questions.

Answers:

1. C, D, E

2. (a) \( \varnothing \)
   (b) \( \subset \)
   (c) \( \varnothing \)
   (d) \( \subset \)
   (e) \( \subset \)
   (f) \( \subset \)

3. (e)

4. (a) d, \{3\}
   (b) d, \{6\}, \{11\}, \{6, 11\}
   (c) d, \{2\}, \{5\}, \{9\}, \{2, 5\}, \{2, 9\}, \{5, 9\}, \{2, 5, 9\}
(d) \{1, 2, 6, 7, 1, 2\}, \{1, 6\}, \{1, 7\}, \{2, 6\}, \{2, 7\}, \{6, 7\}, \{1, 2, 6\}, \{1, 2, 7\}, \{1, 6, 7\}, \{2, 6, 7\}, \{1, 2, 6, 7\}

(e) \{a\}, \{b\}, \{c\}, \{a, b\}, \{a, c\}, \{b, c\}, \{a, b, c\}, d

(f) d

(g) \{p\}, \{q\}, \{r\}, \{s\}, \{p, q\}, \{p, r\}, \{p, s\}, \{q, r\}, \{q, s\}, \{r, s\}, \{p, q, r\}, \{p, q, s\}, \{p, r, s\}, \{q, r, s\}, \{p, q, r, s\}

5. (a) \{1, 2, 3, 1, 2\}, \{1, 3\}, \{2, 3\}

(b) \{d\}, \{a\}, \{b\}, \{c\}, \{d\}, \{a, b\}, \{a, c\}, \{a, d\}, \{b, c\}, \{b, d\}, \{c, d\}, \{a, b, c\}, \{a, b, d\}, \{a, c, d\}, \{b, c, d\}

(c) \{d\}, \{p\}, \{q\}, \{r\}, \{p, q\}, \{p, r\}, \{q, r\}

(d) \{d\}, \{5\}, \{10\}

(e) d

(f) none

6. (a) 8

(b) 32

7. (a) 63

(b) 15

9. (a) \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}

(b) \{a, b, c, e, f, g\}

(c) \{2, 3, 4, 5, 6, 7, 8, 9, 10\}

10. (a) \{1, 3, 5, 7, 9, 10\}

(b) \{1, 2, 4, 6, 8, 9, 10\}

(c) \{2, 3, 4, 6, 10\}

11. (a) True

(b) True

(c) False
(d) False
(e) True
(f) False
(g) False
(h) False

12. set of negative integers

13. (a) \{0, 1, 2\}
    (b) \{1, 2\}
    (c) \{... -3, -2, -1, 0, 1, 2\}

15. (a) Yes
    (b) No
    (c) No
    (d) Yes
    (e) No
    (f) Yes
    (g) Yes
    (h) No
CLASS XI HUMANITIES
SUBJECT: HISTORY
QUESTION BANK

CHAPTER 1: FROM THE BEGINNING OF TIME

1. What is the significance of a timeline?
2. Why did early humans travel in groups?
3. Discuss the major changes that took place during Neolithic age and its consequences.
4. Distinguish between pre historic and historic era.
5. Which time period is associated with ancient history for world history?

CHAPTER 2: WRITING AND CITY LIFE

1. What do you understand by the term Mesopotamia? Name some important centres of this civilization.
2. Discuss the development of writing in Mesopotamia.
3. Write a short note on a trading city of Mesopotamia.
4. There is lack of town planning in the city of Ur. Justify the statement.
5. What is the most important legacy of Mesopotamia and why?

NOTE:

- E-book available on the following link: http://ncertbooks.prashanthellina.com/11_History.html
- All assignments to be completed in history classwork register.