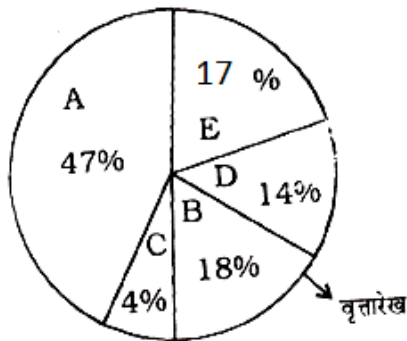


21-Days Study Plan

Day 8

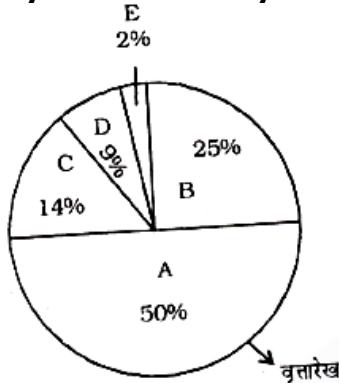
1. **Directions:** In the following questions, study the two pie-charts and answer the questions.

April month's salary : 24000



- A – Education
- B – Saving
- C – Grocery
- D – Electricity and Phone Bills
- E – Miscellaneous

May month's salary : 25000



What is the percent increase in Education in May month than April month?

- A. 9.56%
- B. 12.35%
- C. 20%
- D. 10.82%

Ans. D

Sol. $(25000 \times 50\%) - (24000 \times 47\%) = 1220$

% increase = $[\frac{1220}{(24000 \times 47\%)}] \times 100 = 10.82\%$

Hence Option D is correct

2. The ratio of amount of saving in April month's salary and miscellaneous in May month's salary is :

- A. 216 : 25
- B. 217 : 26
- C. 205 : 13
- D. 235 : 50

Ans. A

Sol. Saving in April = $24000 \times 18\% = 4320$

Miscellaneous in May = $25000 \times 2\% = 500$

Required Ratio = $4320:500 = 216:25$

Hence Option A is correct

3. From the salary of May, the amount spent on Grocery and Electricity are :

- A. 6250, 3360
- B. 960, 5040
- C. 3500, 2250
- D. 2160, 480

Ans. C

Sol. Amount spent on electricity in May = $\Rightarrow 25000 \times 9\% = \text{Rs } 2250$

Amount spent on grocery in May = $\Rightarrow 25000 \times 14\% = \text{Rs } 3500$

Hence Option C is correct.

4. The average amount spent on Education, Grocery and Savings from April month's salary is :

- A. 5800
- B. 6000
- C. 6325
- D. 5520

Ans. D

Sol. Saving = 18%

Grocery = 4%

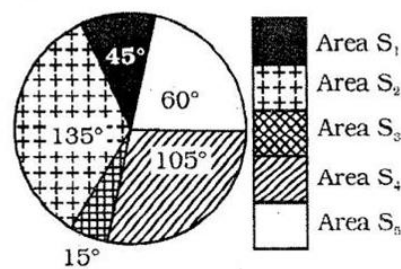
Education = 47%

Total percentage = 69%

Total amount spent = $69\% \times 24000 = 16560$

Average amount spend = 5520

5. **Direction:** Population of five adjacent areas of a town, in the year of 2010, are represented in the following Pie-chart. The ratio of the numbers of males to that of female in these areas is stated in the table below. The total of the population in all the five areas is 72 lakh. Study the Pie-chart and the table and then answer the questions.



Ratio of numbers of males (M) to females (F)

Areas	S ₁	S ₂	S ₃	S ₄	S ₅
Ratio M:F	3 : 2	4 : 1	7 : 3	2 : 3	13 : 7



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12 lakh is the population of the area: A. S_1
 B. S_3
 C. S_5
 D. S_4

Ans. C

Sol. $72 \text{ lakhs} = 360^\circ$

So,

$$12 \text{ lakhs} = 360/72 \times 12$$

$$60^\circ = S_5$$

Hence 12 lakh is the population of S_5 area.

6. The number of males in the area S_1 and S_4 together is

- A. 13.8 lakh B. 8.2 lakh
 C. 16.2 lakh D. 15.8 lakh

Ans. A

Sol. Population of region S_1

$$= 45/360 \times 72 = 9 \text{ lakhs}$$

$$\text{Males} = 3/5 \times 9 = 5.4 \text{ lakhs}$$

Population of region S_4

$$= 105/360 \times 72 = 21 \text{ lakhs}$$

$$\text{Males} = 2/5 \times 21 = 8.4 \text{ lakhs}$$

$$\text{Sum} = 5.4 + 8.4 = 13.8 \text{ lakhs}$$

7. The ratio of number of females in the area S_2 to that in the area S_5 is:

- A. 7:9 B. 36:13
 C. 9:7 D. 13:36

Ans. C

Sol. Population of region S_2

$$= (135/360) \times 72 = 27 \text{ lakhs}$$

$$\text{Females} = 1/5 \times 27 = 5.4 \text{ lakhs}$$

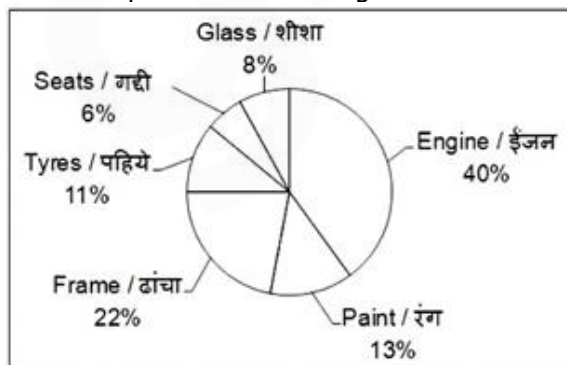
Population of region S_5

$$= (60/360) \times 72 = 12 \text{ lakhs}$$

$$\text{Females} = 7/20 \times 12 = 4.2 \text{ lakhs}$$

$$\text{Required ratio} = 5.4 : 4.2 = 9 : 7$$

8. Direction: The pie chart given below shows the percentage of time taken by different process in making a car.



If total time taken to make a car is 300 hours, then what is the total time (in hours) taken in paint and frame? A. 99

- B. 72
 C. 105
 D. 66

Ans. C

Sol. Total time taken in making a car=300 hour

Central angle of paint and frame=13 +22 =35%

$$100\% = 300 \text{ hour}$$

$$35\% = \frac{300}{100} \times 35 = 105$$

9. If time taken in seats is 192 hours, then what is the time taken (in hours) in glass?

- A. 256 B. 352
 C. 416 D. 278

Ans. A

Sol. Time taken in seats=192 hour

i.e 6% represents 192 hour

the percentage of glass is 8

then time taken in manufacturing

$$\frac{192}{6} \times 8 = 256 \text{ hour}$$

10. If total time taken in engine and tyres is 127.5 hours, then what is the difference (in hours) in time taken by frame and glass respectively?

- A. 27.5 B. 12.5
 C. 40 D. 35

Ans. D

Sol. Time taken in engine and tyres=127.5 hour

$$\text{i.e } 40\% + 11\% = 127.5 \text{ hour}$$

$$51\% = 127.5 \text{ hour}$$

Percentage of frame= 22%

Percentage of glass= 8%

Difference in time taken by frame and glass=

$$\frac{22-8}{51} \times 127.5 = \frac{14}{51} \times 127.5 = 35$$

11. Read the passage carefully and select the best answer to each question out of the given four alternatives.



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The caste system in India is the **paradigmatic** ethnographic example of caste. It has origins in ancient India, and was transformed by various ruling elites in medieval, early-modern, and modern India, especially the Mughal Empire and the British Raj. It is today the basis of educational and job reservations in India. It consists of two different concepts, *varna* and *jati*, which may be regarded as different levels of analysis of this system. The caste system as it exists today is thought to be the result of developments during the collapse of the Mughal era and the British colonial regime in India. The collapse of the Mughal era saw the rise of powerful men who associated themselves with kings, priests and **ascetics**, affirming the regal and martial form of the caste ideal, and it also reshaped many apparently casteless social groups into differentiated caste communities. The British Raj furthered this development, making rigid caste organisation a central mechanism of administration. Between 1860 and 1920, the British segregated Indians by caste, granting administrative jobs and senior appointments only to the upper castes. Social unrest during the 1920s led to a change in this policy. From then on, the colonial administration began a policy of positive discrimination by reserving a certain percentage of government jobs for the lower castes.

Caste-based differences have also been practiced in other regions and religions in the Indian subcontinent like Nepalese Buddhism, Christianity, Islam, Judaism and Sikhism. It has been challenged by many reformist Hindu movements, Islam, Sikhism, Christianity, and by present-day Indian Buddhism.

According to the passage, caste system was further strengthened by?

- A. Rise of Mughal empire
- B. Fall of Mughal empire
- C. Fall of the British Raj
- D. Buddhism

Ans. B

Sol. It is mentioned in the second line of the first paragraph that the caste system as we see it today, is the result of various

elites that shaped the social fabric of the country. The fall of the Mughal empire brought in the British which strengthened the caste system by introducing reservation system, it was considered a positive discrimination to uplift the lower-class societies and bring them at par with the other castes

12. Which word is closest in meaning to 'paradigm'?

- A. Practical
- B. Pragmatic
- C. System of thoughts
- D. Beliefs that are orthodox

Ans. C

Sol. Paradigm means a system of thoughts or patterns. Pragmatic means to act in a realistic and practical way. Paradigm is not related to any orthodox beliefs as they mean conforming to the established, accepted or traditional doctrines of a given ideology.

13. Which word is not closest in meaning to **ascetics**?

- A. Celibate
- B. Hermit
- C. Sybaritic
- D. Puritan

Ans. C

Sol. Ascetics refer to the person who follows a spiritual life and abstain themselves from the materialistic comforts of the life. Hermit is a person who spends his life meditating. Celibate means to abstain from marriage or any relationships. Sybaritic is a self-indulgent person who takes great pleasure in materialistic comforts.

14. What action was taken by the government to suppress the social unrest?

- A. Providing free education to lower classes.
- B. Providing food at low prices.
- C. Providing houses to lower class people.
- D. Seats secured separately for different jobs to uplift the lower classes.

Ans. D

Sol. During the social unrest of the 1920's the government thought reservation was a good idea. As it would help the lower classes. Although it was a positive discrimination but it was discrimination.



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Therefore, it is still one of the most controversial topics. They found this to be the best solution at that time. Hence Option D is the correct answer.

15. Where were the origins of the caste system?

- A. British Raj B. Mughal era
C. Medieval India D. Ancient India

Ans. D

Sol. Although the caste system strengthened after the fall of the Mughal empire and during the reign of the British empire as they started positive discrimination towards lower class people to equate them and help them grow financially and physically. The origins of the caste system lie in the Ancient India, but it altogether is a different history. The correct answer is D.

16. Read the passage carefully and select the best answer to each question out of the given four alternatives.

Alexander Hamilton, the first Secretary of Treasury, started a movement in 1780 advocating for the creation of a central bank. The Bank Bill created by Hamilton was a proposal to institute a national bank in order to improve the economic stability of the nation after its independence from Britain. Although the national bank was to be used as a tool for the government, it was to be privately owned. Hamilton wrote several articles providing information regarding his national bank idea where he expressed the validity and "would be" success of the national bank based upon: incentives for the rich to invest, ownerships of bonds and shares, being rooted in fiscal management, and stable monetary system.

In response to this, the First Bank of the United States was established in 1791, its charter signed by George Washington. The First Bank of the United States was headquartered in Philadelphia, but had branches in other major cities. The Bank performed the basic banking functions of accepting deposits, issuing bank notes, making loans and purchasing securities.

When its charter expired 20 years later, the United States was without a central bank for a few years, during which it suffered an unusual inflation. In 1816, James Madison signed the Second Bank of the United States into existence. Then, in 1833, before that bank's charter expired, President Jackson removed the government funds as part of the Bank War, and the United States went without a central bank for 40 years.

A financial crisis known as the Panic of 1907 was headed off by a private conglomerate (led by J. P. Morgan), who set themselves up as "lenders of last resort" to banks in trouble. This effort succeeded in stopping the panic, and led to calls for a Federal agency to do the same thing.

In response to this, the Federal Reserve System was created by the Federal Reserve Act of December 23, 1913, establishing a new central bank intended to serve as a formal "lender of last resort" to banks in times of liquidity crisis—panics where depositors tried to withdraw their money faster than a normal fractional-reserve-based bank could pay it out.

Source:

https://en.wikipedia.org/wiki/Federal_Reserve_Bank

Who brought the country out of the panic of 1907 when all banks collapsed?

- A. Alexander Hamilton
B. J.P Morgan
C. George Washington
D. Donald Trump

Ans. B

Sol. It is mentioned in the passage that the financial crisis known as the Panic of 1907 was headed off by a private conglomerate (led by J. P. Morgan), who set themselves up as "lenders of last resort" to banks in trouble. The correct answer is option B.

17. Who created the Bank Bill?

- A. George Washington
B. J.P. Morgan
C. Alexander Hamilton
D. James Madison

Ans. C



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Sol. It is mentioned in the passage that the Bank Bill created by Hamilton was a proposal to institute a national bank in order to improve the economic stability of the nation after its independence from Britain. The correct answer is option C.

18. For how many years did the United States remain without a central bank after the creation of the First Bank of United States in 1791?

- A. 20 years B. 40 years
C. 45 years D. 65 years

Ans. C

Sol. United States was without a Central Bank during 1811 to 1816 and then 40 years after 1833, which makes the total 45 years. The correct answer is option C. 1791 has been mentioned in the passage when the bank was formed and it expired after 20 years which takes us to 1811.

19. What name was given to the group of Bankers that saved the country from the Panic of 1907?

- A. J.P. Morgan and Co
B. Founder of last resort
C. Independent Bankers
D. None of these

Ans. D

Sol. The group was called Lenders of Last resort. Refer to the following statement of the passage, "A financial crisis known as the Panic of 1907 was headed off by a private conglomerate (led by J. P. Morgan), who set themselves up as "lenders of last resort" to banks in trouble." The correct answer is option D.

20. When did the Second Bank of United States come into existence?

- A. 1865 B. 1816
C. 1780 D. 1907

Ans. B

Sol. Refer to the following statement of the passage, "In 1816, James Madison signed the Second Bank of the United States into existence." The correct answer is option B.

21. Which Indian contemporary artist was awarded the 7th Joan Miro Prize 2019?

- A. Nalini Malani B. Atul Dodiya

C. Arpita Singh D. Vivan Sundaram

Ans. A

Sol.

- **Artist Nalini Malani** has won the seventh edition of the Joan Miro Prize.
- **Joan Miro Prize** is an international award that comes with a 70,000-Euro (\$78,000) cash prize.
- It is considered one of the most prestigious art awards in the world.
- The Joan Miro prize is granted by the Joan Miro Foundation and the La Caixa Foundation.

22. Who among the following defeated Harshavardhan in 618 CE?

- A. Chandragupta I B. Pulakeshin II
C. Pushyamitra D. Alexander

Ans. B

Sol.

- **Pulakeshin II defeated Harshavardhan** on the banks of Narmada in 618-619 CE.
- Pulakeshin II was the most famous ruler of the Chalukya dynasty.
- During his reign, the Chalukya kingdom expanded to cover most of the Deccan region in peninsular India.

23. The 2nd edition of NIC Tech Conclave 2020 was held in _____ from 21 to 22 January 2020.

- A. Nagpur B. Indore
C. Kanpur D. New Delhi

Ans. D

Sol.

- The 2nd edition of NIC TechConclave 2020 was held at Pravasi Bhartiya Kendra, Chanakyapuri, **New Delhi on 21-22 January 2020.**
- The conclave was inaugurated by the Union Minister for Law & Justice, Communications and Electronics & Information Technology, Shri Ravi Shankar Prasad.
- The two-day event will be organized by the **National Informatics Centre (NIC).**
- The theme of the NIC TechConclave 2020 is **Technologies for Next-Gen Governance.**



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24. Preserved traces of living organisms retained in the form of impressions of the body parts in the soil are called _____.

- A. specimen
- B. fossils
- C. antique
- D. phylogeny

Ans. B
Sol.

- A **fossil** is any preserved remains, impression, or trace of any once-living thing from a past geological age.
- Examples include bones, shells, exoskeletons, stone imprints of animals or microbes, objects preserved in amber, hair, petrified wood, oil, coal, and DNA remnants.

• **Paleontology** is the study of fossils.

25. Which state of India does not get the border from Pakistan?

- A. Gujarat
- B. Rajasthan
- C. Punjab
- D. Himachal Pradesh

Ans. D
Sol.

The states which share border with Pakistan are Gujarat, Rajasthan, Punjab and Jammu & Kashmir. So, Himachal Pradesh does not share border with Pakistan.

26. In 1991, India's first indigenous supercomputer named _____ was developed by Vijay Bhatkar.

- A. Prayas 3000
- B. Prayog 2000
- C. Param 8000
- D. Pragati 5000

Ans. C
Sol.

• **PARAM 8000 was unveiled in 1991.** It was developed by Dr. Vijay Bhatkar.

- PARAM is a series of supercomputers designed and assembled by the Centre for Development of Advanced Computing (C-DAC) in Pune, India.
- The latest machine in the series is the PARAM BRAHMA.

27. Which of the following lakes is the largest man-made lake in India?

- A. Maharana Pratap Sagar
- B. Govind Vallabh Pant Sagar
- C. Rajsamand Lake
- D. Dhebar Lake

Ans. B
Sol.

• **Govind Vallabh Pant Sagar and is India's largest artificial lake.** It is also known as Rihand Dam.

- It is the largest dam of India by volume. It is located at Pipri in Sonbhadra District in Uttar Pradesh.
- It was constructed during period from 1954-62.

28. AIX is the operating system of which company?

- A. Apple
- B. Unisys
- C. IBM
- D. Microsoft

Ans. C
Sol.

* **AIX is stands for Advanced Interactive eXecutive.**

* AIX is a series of proprietary Unix operating systems developed and sold by IBM for several of its computer platforms.

* AIX allows the system administrator to divide memory, CPU, and disk access between various jobs.

* **The International Business Machines Corporation (IBM)** is an American multinational information technology company.

* It is headquartered in **Armonk, New York.**

* It was formed on **16 June 1911.**

29. Two trucks start from the opposite places of a highway, 150 km apart. First truck runs for 25 km and takes a right turn and then runs 15 km. It then turns left and then runs for another 25 km and then takes the direction back to reach the main road. In the mean time, due to minor break down the other truck has run only 35 km along the highway. What would be the distance between two trucks at this point?

- A. 55 Km
- B. 65 Km
- C. 87 Km
- D. 100 Km

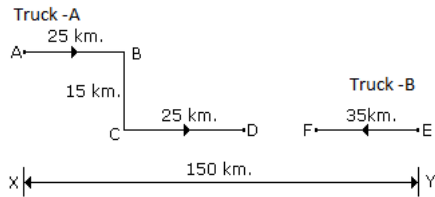
Ans. B

Sol. Below is the diagram which depicts the path traversed by the two trucks along the highway.



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It is clear from the above diagram DF is the required distance that needs to be calculated.

$$DF = 150 - (25 + 25 + 35)$$

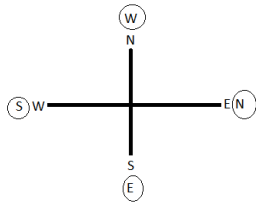
$$DF = 150 - 85 = 65\text{Km.}$$

Hence, option B is correct.

30. In a compass, west direction is shown as south. As per the compass, which direction should a man go to, if he wishes to move towards the east?

- A. North
- B. South
- C. East
- D. West

Ans. A



Sol.

Here, the circled Letters shows the changed directions,

So, if West is South, then to it's opposite will be East which would be North according to the compass and so on..

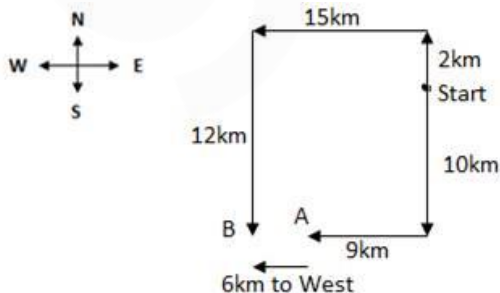
Hence, option A is correct.

31. A and B start from the same point. A cycles 10 km South, then turns to her right and cycles 9 km. B cycles 2 km North, then turns West and cycles 15 km, then turns to her left and cycles 12 km. Where is B with respect to A now?

- A. 6 km West
- B. 6 km East
- C. 24 km West
- D. 24 km East

Ans. A

Sol.

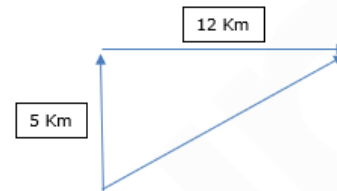


B is 6km towards west from A. Hence, option A is correct.

32. A man is facing towards the east. He turns towards north and walks for 5 km, and then turns right and walks for 12 km more. What is the minimum distance between his initial and final position?

- A. 17 km
- B. 13 km
- C. 11 km
- D. 9 km

Ans. B



Sol.

Applying the Pythagoras theorem, we will get the minimum distance between initial and final

point:

$$\sqrt{(12^2 + 5^2)}$$

$$\Rightarrow \sqrt{(144 + 25)}$$

$$\Rightarrow \sqrt{169}$$

$$\Rightarrow 13$$

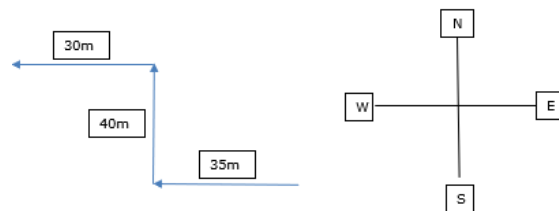
Hence, the correct option is B.

33. Gurpreet is facing towards south. She turns right and walks 35m, then turns right again and walks 40m more. Finally, she turns left and walks 30m. Which direction is she facing now?

- A. South
- B. North
- C. West
- D. East

Ans. C

Sol.



Hence, the correct option is C.

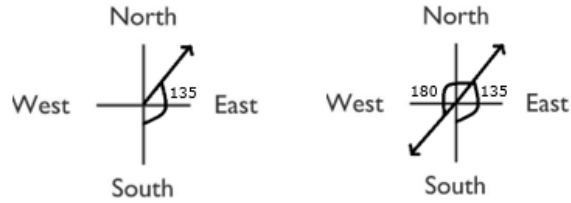
34. A girl is standing facing towards the south. She turns 135 degree in the anticlockwise direction and then again takes a 180 degree turn in the

anticlockwise direction. Which direction is she facing now?

- A. South-west
- B. South
- C. South-east
- D. West

Ans. A

Sol.



Hence, the correct option is A.



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